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Our editorial discusses the relevance of Goethe's *Faust* for the 21st-century higher education teacher and researcher before providing an overview of the issue at hand. Johann Wolfgang von Goethe's marathon drama *Faust* is one of the most famous German plays of all time and also one of the most eminent and frequently-cited pieces of German literature. It consists of 12,110 verses, and Goethe (after whom the German cultural centres around the world, the Goethe Institutes, are named) worked on and off on the play throughout his long adult life – for close to 60 years between 1773 till his death in 1832. In 2000, an unabridged performance of both parts of *Faust* took a whopping 22 hours (Jenny, 2000)!

In the play's first part, Faust is introduced as a disenchanted academic. At night, whilst in his high-vaulted Gothic chamber, he restlessly complains:

> "Ah! Now I've *done* Philosophy,
> I've finished Law and Medicine,
> And sadly even Theology:
> Taken fierce pains, from end to end.
> Now here I am, a fool for sure!
> No wiser than I was before:
> Master, Doctor's what they call me,
> And I've been ten years, already,
> Crosswise, arcing, to and fro,
> Leading my students by the nose,
> And see that we can know - nothing!
> It almost sets my heart burning."
> (v. 354-365)

Faust experiences an existential epistemic crisis ("we can know – nothing!") that also shows characteristics of impostor syndrome ("now here I am a fool for sure! / No wiser than I was before"). Faust shows himself as dissatisfied and even disgusted by the philosophical and theological answers to the big questions that he has been seeking to answer in vain. However, the following part also contains conceit and self-aggrandisement:

> "I'm cleverer than all these teachers,
> Doctors, Masters, scribes, preachers:
> I'm not plagued by doubt or scruple,
> Scared by neither Hell nor Devil –"
> (v. 366-369)

Thereafter, his crisis of knowledge and impostor syndrome takes over again:

> "Instead all Joy is snatched away,
> What's worth knowing, I can't say,
> I can't say what I should teach
> To make men better or convert each."
> (v. 370-373)

Parts of the above are reminiscent of Socrates's oft-quoted 'I know that I know nothing'. Although Socrates may have never quite uttered the afore-mentioned statement, known as Socrates's paradox, Plato quotes him as:

> "I am wiser than this man, for neither of us appears to know anything great and good; but he fancies he knows something, although he knows nothing; whereas I, as I do not know anything, do not fancy I do. In this trifling particular, then, I appear to be wiser than he, because I do not fancy I know what I do not know" (Plato, 2005: *Apology*, 21d).

Faust doubts the epistemological value of science, which is far from explaining what holds the world together at its core (v. 383). To escape the scientific impasse, he resorts to magic and conjures up the earth spirit, the active force of nature. He hopes through him to participate in the life of the divine universe: "You who wander the world, on every hand / Active Spirit, how close to you I feel! (v. 510-511). However, he is only mocked by that spirit as "a fearful, writhing worm" (v. 498). In addition to Faust's crisis of knowledge and science, we can also sense a teaching and moral crisis. In despair, Faust contemplates suicide till he hears the ringing of the

church bells on Easter Sunday (which reminds him less of the Christian message than of happy childhood days).

Goethe's play is gargantuan in scope and should not be reduced to a single theme or simplistic takeaways. Amusingly, but overly succinctly, another great German playwright, Berthold Brecht, summarised the plot: "Basically, it's the love story of an intellectual and a petty-bourgeois woman. The devil must have been involved" (Brecht et al., 2016; Jürgen Rudolph's translation). Lange (1992) probably exaggerated when he claimed that no work in world literature has eluded interpretation like Goethe's Faust. Nonetheless, the second part, in particular, demands an unusual degree of knowledge and careful reading because of the text's labyrinthine topography.

In Goethe's Faust I, Dr Heinrich Faust, like his historical role model Johann Georg Faust (approximately 1480–1538), is a middle-aged, respected academic. In his striving to "understand whatever binds the world's innermost core together (v. 382-383), Faust – unsatisfied with rational knowledge – turns to magic, but the sight of the 'sign of the macrocosm' is not enough for him, since he demands participation in the 'acting Nature' (v. 441). Faust takes stock of his life: as a scientist, he lacks deep insight, and as a person, he cannot enjoy life to the fullest. Faust is torn between his physical and mental needs and his worldly and otherworldly ambitions:

> "Two souls, alas, exist in my breast,
> One separated from another:
> One, with its crude love of life, just
> Clings to the world, tenaciously, grips tight
> The other soars powerfully above the dust,
> Into the far ancestral height"
> (v. 1112-1117).

It can be argued that although Faust and Mephisto appear as independent characters, they ultimately form a precarious unit of one person together, just as Goethe said of himself that he was a 'collective singular' and consisted of several people with the same name (Safranski, 2020).

Deeply depressed and tired of life, Faust makes a pact with Mephisto in the form of a bet. In the so-called pact with the devil, Mephisto undertakes to serve Faust in this world and to fulfil all his wishes here. In return, Faust is willing to hand over his soul to the devil if he succeeds in freeing him from his dissatisfaction and providing constant change. Mephisto builds on Faust's disappointment with his scholarly life to make the banal enjoyment of life palatable to him: "We must re-order everything / Before the joys of life slip by" (v. 1818-1819). Behind Faust's back, Mephisto is amused that the scholar has given up on "Man's highest powers": "Reason and Science you despise" (v. 1851).

Parenthetically, there is a comical yet poignant passage when Mephisto, dressed in Faust's professorial robes, fools a newly arrived student with cynical advice, launching a satirical, sweeping attack on university scholarship in general and the narrow-mindedness of individual faculties in particular. Mephisto writes in the student's family book in Latin: "Eritis sicut Deus, scientes bonum et malum" (You'll

be like God, acquainted with good and evil – v. 2048). This line is from *Genesis* (3:5) in the bible and quotes the serpent addressing Adam and Eve to tempt them to sin. Mephisto ends the scene with the words "And then your likeness to God will surely frighten you!" (v. 2049), indirectly evaluating Faust's striving to be made in the image of God (v. 614) as a repetition of the fall.

Faust I sees Mephisto striving to lead Faust astray, transforming him into a young man and helping him to initiate a love affair with Gretchen, a young woman with whom Faust immediately falls in love. Faust ruins Gretchen's life by making her pregnant and causing the deaths of her mother and brother. Gretchen gives birth to an illegitimate child, kills her baby out of desperation and is subsequently arrested and imprisoned. Faust wants to save her from execution with the help of Mephisto, but his persuading her to flee is in vain. He must finally leave her to her fate and the mercy of God.

Faust II consists of five acts. In the first act, Faust has gone into a long healing sleep of forgetting to free himself from his guilty conscience. He awakens full of desire for action. Faust is brought to the imperial court by Mephisto, and the latter supports him in getting hired as an adviser to the Emperor. Disguised as Plutus (the Greek God of Wealth), Faust introduces paper money to the Emperor to restructure the empire's state finances. The second act is full of Greek mythological figures and an artificial human, Homunculus, created by Faust's former assistant, Wagner. In the third act, Faust finally succeeds in bringing Helen of Troy from the world of the dead into his world. Helen is the initial cause of the Trojan War in Homer's Iliad (Paris, through seduction or by force, stole Helen away from Meneleaus's home in Sparta) and the classic Greek archetype of beauty. Faust impresses Helen with his poetry. A few years later, Faust and Helen live with their son Euphorion in an idyllic landscape. Euphorion, a passionate young man developing at lightning speed and representing the spirit of poetry, thinks he can fly but tragically falls into an abyss. Helen returns to the world of the dead, and only her veil remains for Faust.

In the fourth act of *Faust II*, Faust and Mephisto travel to a fortress in the mountains that belongs to the Emperor. Mephisto advises Faust to go to war for the Emperor. With Mephisto's magic help, the opposing emperor is defeated. The grateful Emperor presents Faust with a coastal strip of land, and now Faust can embark on his land reclamation project. A few years later – in the final act – Faust is well advanced in this project. But two elderly local residents, Philemon and Baucis, refuse to give up their land. Mephistopheles sets their chapel and hut on fire and causes their death. Faust, who is now a hundred years old, finally renounces Mephisto. Having gone blind from worry, he collapses dead. Mephisto thinks himself the winner of the bet and wants to seize Faust's soul. However, heavenly angels interfere, and Faust is redeemed in heaven and led to the kingdom of the blessed by Gretchen, the penitent.

In contrast to *Faust I,* the focus of the second part is no longer on the soul and emotional life of the individual. Faust continues to develop, becoming a socially and historically acting entrepreneur. In *Faust II*, the homonymous

protagonist actively devotes himself to a wide variety of activities and thus corresponds to the ideal of the classic period to develop all his abilities. Faust is no longer the old-German stuffy scholar or ardent lover of part I. He now appears as a worldly-wise, sophisticated gentleman who is courted by an emperor. He wins over Helen of Troy, the world's most beautiful woman, as a knight of noble stature, then becomes a military strategist who defeats the army of the opposing emperor before finally becoming a big-time businessman in dyke construction. Similarly, Mephisto is transformed from an old-German devil to an elegant cynic, a man of the world who gets things done and does not care how. He then becomes a management consultant of the cunning kind, and at the very end, he shows himself to be a gay lecher (Safranski, 2020).

When reading or watching a performance of *Faust*, we cannot help but be intrigued by the poetic power of Goethe's tour de force. Reading *Faust* in 2022 is an uncanny modern experience. It conveys the timelessness of the drama and reminds us of our own pacts with metaphorical devils as humans and, more specifically, as teachers and academics. It may be worth noting that Goethe himself neither believed in an otherworldly God nor in the devil and thought of the bible as a book of delightful stories, akin to the *Tales from 1001 nights* (Safranski, 2020).

On a general level, Goethe's *Faust* reminds us of our own Faustian pacts in the form of our blind belief in an endless progress that, amongst other things, leads to the destruction of our environment. Since the 1950s, we live in the Anthropocene, a period characterised by the dominant influence on climate and the environment of human activity. Graphs for the rise of carbon dioxide, methane levels in the atmosphere, surface temperatures, factory farming, plastic pollution, ocean acidification, loss of fish populations and tropical forests all show a hockey stick shape from the mid-century onwards (Attenborough, 2020; Ripple et al., 2017; Wagler, 2011). The Anthropocene as 'the epoch of humans' could end in the ultimate disappearance of our civilisation. Living unsustainably damages our whole ecological system to a point where it is bound to ultimately collapse (Tan & Rudolph, 2022). Our Faustian bet that endless growth is possible on a finite planet makes us sleepwalk into catastrophe. Goethe agreed with Spinoza's pantheism and the latter's dictum "Deus sive natura", which views God as interchangeable and synonymous with Nature in all its richness and creative power (Safranski, 2020). In addition, the ancient Greeks experienced the world as a spiritual-sensual totality, where humans and nature are one. If we followed Goethe and saw nature as indeed divine and an inextricable part of the human experience, our technocratic, dominating relationship with it would have to change fundamentally.

Regarding our work as teachers and researchers, many of the themes in *Faust* are highly relevant. Faust despairs because of the limits of his knowledge and its self-perceived shallowness and, as a result, questions the meaningfulness of his own teaching. During the recent pandemic, whose tail end we are hopefully currently witnessing, there was much despair and suicidal thoughts both among students and teachers. Mental health issues abounded, and well-being became a key issue (Wilson et al., 2020; Rudolph

et al., 2021). While these issues were less the result of an epistemic crisis, they certainly relate to a crisis of teaching and learning. As a result of the emergency remote teaching – or for many students in poor countries around the world: no teaching at all – teachers felt stressed and alienated, and students isolated and deprived (Abou Youssef & Richter, 2022; Rudolph et al., 2022; Schotgues, 2022; Tan et al., 2022). On a more epistemological level, many higher-education teachers were, pre-pandemic, unfamiliar with online teaching and then needed to question cherished truths that were no longer applicable to the online environment – for instance, how to encourage online class participation and how to modify virtual discussion protocols.

Faust has feelings of impostorship and delusions of grandeur. In Faust's case, these are twin sentiments or extremes on a spectrum between which he appears to vacillate. We believe this to be not an uncommon experience. For instance, we may feel very familiar with some of our teaching content and feel that 'we know more than anybody else' and that 'we are the smartest', whereas when things go wrong in the classroom (at least in our own perception), we have a sense of impostorship. Stephen Brookfield (2015, 2017) has written about impostorship at length. It is a self-sabotaging behavior, which consists of negative self-talk about our supposed inadequacies or unworthiness to be successful teachers. Impostorship is widespread and can be countered via team teaching (which, unfortunately, is not as widespread as it should be) and continuous classroom research (for instance, using anonymous back channels in which students can comment throughout the class or Critical Incident Questionnaires: Brookfield, 2015, 2017). Interestingly, mild forms of impostorship may be useful as they signify a sense of humility, which facilitates building an authentic relationship with students.

On the other end of the spectrum of a sense of impostorship are self-aggrandisement and conceit. We cited earlier Faust's "I'm cleverer than all these teachers, / Doctors, Masters, scribes, preachers: / I'm not plagued by doubt or scruple, / Scared by neither Hell nor Devil". In a competitive world, 'bigging up' is often considered a necessity amongst academics. Already Aristotle made some critical observations about what he called alazony in his *Nichomachean Ethics* (Aristotle, 1955). The pretentious person (*alazôn*) claims things that bring renown when he does not have them or claims more of them than he has. Boasters are wearisome and fail to recognise irony. They tend to be arrogant and thus exhibit misplaced self-confidence and a lack of critical reflection. In Aristotle's terminology, the opposite of the *alazôn* is the ironic person that misses the truth by excessive understatement, which is also problematic as it may mislead the literally-minded (Aristotle, 1955; Conroy & Smith, 2017). Whilst ironic mock modesty may be a more attractive personal characteristic than self-important self-aggrandisement, we also need to be careful with too much self-deprecation in the classroom (Brookfield, 2017).

Faust is a deeply flawed character. Interestingly, during the Enlightenment and perhaps up to the end of the Third Reich in 1945, the view prevailed that Faust should not be punished in hell for using the gift of reason given to man by God in all its possibilities. After all, the urge to know is part

of human nature, and Faust's voracious appetite for action was glorified as faultless (Demmer, 1997). Gotthold Ephraim Lessing (1729 - 1781) was the first to argue that Faust should be pardoned because of his commitment to acquiring knowledge (Schramm, 2019). Accordingly, Goethe, who was not fond of tragedies (Safranski, 2020), at the end of *Faust II*, made three angels pronounce the verdict on Faust: "Whoever strives, on his endeavour, / We can rescue from the devil" (v. 11936-11937). The justification for Faust's salvation is that he has striven. This judgement was anticipated in *Faust I*, where Faust was described as "still aware of virtue's ways" (v. 329). In other words, he was well aware of the right path and ultimately did not leave it.

It is of course questionable whether Faust is a "good man, in his dark yearning", who is "still aware of virtue's ways" (v. 328f.), and whether his deeds can be accepted as mere errors. Faust accepts Mephisto's destructive help all too unhesitatingly. Consequently, Faust's divine 'pardon' at the end of *Faust II* surprised many 19th-century readers, as Faust's sins (especially from a Christian perspective) were numerous. Amongst other things, Faust almost commits suicide; he plunges Gretchen into misfortune by getting her pregnant and then abandoning her; he is involved in the killing of Gretchen's mother, is responsible for the death of her brother, and shares responsibility for Gretchen's desperate act of killing her child; he is at least partially to blame for the deaths of Philemon and Baucis; his dealings are dubious, and he does not contradict Mephisto's assertion that it is generally difficult to distinguish war, trade and piracy – "War, trade, and piracy, allow, / As three in one, no separation" (v. 11187-11188) – and perhaps most damningly, he is involved with Mephisto – the devil. Indeed, many of the literary, artistic, cinematic, and musical works that are associated with the Faust legend have ended with the protagonist's descent into hell.

Faust gives us hope when even flawed characters like Faust and Gretchen can be redeemed. But is hope, as Peter Fleming so remarkably put it, "permissible" (Fleming et al., 2021, p. 111)? Rather than a naive hope, we would prefer a critically-tempered hope that can sometimes be angry and defiant (Newman, 2006). As Preskill and Brookfield (2009, p. 171) wrote, naive hope "is inattentive to how disorienting despair can be and unappreciative of how much must be done to overcome injustice". In the context of teaching and learning, Kohl (1998, p. 9) defined hope as "the refusal to accept limits on what your students can learn or on what you, as a teacher, can do to facilitate learning". Our reading of *Faust* in the post-pandemic context reminds us to try to avoid impostorship, self-aggrandisement and despair by not engaging with any bets with the devil, that in the 21st century come in many shapes and forms.

Overview of the issue

We start the issue with a Commentary by Tom O'Donoghue, titled "Is conducting interpretive studies within mixed methods research projects justified? Methinks not". O'Donoghue investigates interpretive studies that are described as mixed-methods research studies. His main concerns are: how is one's chosen area of research connected to an underlying research paradigm? How is it connected to a specific theoretical position within the paradigm? How is it connected to a specific methodology consistent with the paradigm and the theoretical position? Finally, how is it connected to a set of methods for data gathering and analysis consistent with the aspects raised in the previous questions? Rather than mounting a major critique of all aspects of works deemed to be mixed methods studies, O'Donoghue shows persuasively that many studies fail to answer these important questions convincingly. We highly recommend O'Donoghue's thoughtful commentary to everybody engaged in mixed-methods research.

Our issue contains 15 research and review articles. After three pandemic-related pieces, four miscellaneous contributions follow that bring us to Canada (on asynchronous learning), Singapore (on the flipped classroom), Australia (on psychological safety) and Vietnam (on knowledge management systems in higher education institutions). The section is concluded with four articles on the teaching and learning of younger students, and there are more research and review articles in the special section.

In Inas Abou Youssef and Carola Richter's well-researched and important article, "Distance teaching in media departments in times of the COVID-19 pandemic. Experiences from six Arab countries", different distance learning experiences in media and communication departments in six Arab countries (Egypt, Tunisia, Iraq, Yemen, Oman, and Qatar) are described, assessed and compared. They answer three research questions through a cross-country comparison: 1) Which organisational steps and arrangements had to be taken by the administration and teaching staff to transition to distance teaching? 2) How was distance teaching perceived by students in the six countries? 3) How was the transition evaluated by the teaching staff, and which suggestions can be made for the future? Abou Youssef and Richter's findings show, amongst other things, that a lack of infrastructure and financial means adversely affected the digitalisation of teaching and learning in the majority of the researched countries.

Ishaq Al-Naabi discusses "Lessons learned from implementing a virtual flipped classroom during COVID-19: An autoethnography". He uses autoethnographic research to explore his teaching strategies and challenges when implementing a virtual flipped classroom in Oman. He identifies the benefits, challenges and strategies for implementing virtual flipped classrooms and proposes a framework to guide higher education instructors when using virtual flipped classrooms.

Kate Collins, Gerard Dooley and Orna O'Brien reflect on the impacts of Covid-19 on the educational experience of mature part-time students in the UCD College of Business in Ireland and the college's evolving post-pandemic support for students. The authors explore the research question as to how has the model of part-time student support provision evolved since the COVID-19 pandemic. The four identified central tenets of student support are (1) day-to-day support and the use of technology; (2) feedback and learner progress; (3) skills development, and (4) orientation and learner integration. It is hoped that the research findings will

influence and shape policy-making in higher education and determine how practitioners support part-time students.

In their article "What's better than the asynchronous discussion post?" Pauline Sameshima and Tashya Orasi discuss the use of asynchronous learning in higher education. They contextualise reflections from five asynchronous online courses taught by different instructors and provide evidence from instructor and student perspectives in assessing the effectiveness of The Slides Strategy. As educational institutions continue to struggle with an increasing need for innovative, dynamic, and supportive online learning environments in a post-pandemic landscape, Sameshima and Orasi's Slides Strategy moves the online discussion post to a more authentic and critically reflexive academic conversation.

Caleb Or, Helene Leong and Xin Hui Ng's article is entitled "Lecturers' perceptions of flipped learning in higher education: A case study on flipped classroom implementation in Singapore Polytechnic". Their findings show that student behaviour as perceived by lecturers and instructional considerations had a significant and positive effect on student learning. In addition, their study examines whether lecturers' experience in flipped learning would moderate instructional consideration and student learning. Or et al.'s results show that lecturers' experience in flipped learning does not influence instructional consideration and student learning.

Kijung Choi and Marcela Fang's article "The role of psychological safety in online tourism and hospitality learning" explores a conceptual framework to examine how tourism and hospitality students' psychological safety and personal resourcefulness in online learning are related to their tourism and hospitality threshold learning outcomes. Their research develops a conceptual framework integrating the conservation of resources and social information processing theories and the findings of a qualitative study through a sequential mixed-methods approach. Choi and Fang test their model with online survey data using a structural equation modelling technique. The results suggest that, for psychological safety, students' computer self-efficacy and peer collaboration significantly affect overall students' perceived graduate outcomes, whereas lecturer support has no significant impact.

Pham Ngoc Duong, Dang Trung Kien and Bui Thanh Khoa's contribution is titled "Do knowledge management systems motivate and satisfy the academic staff in higher education institutions?" The authors explore the relationship between knowledge management and teaching motivation, and academic staff satisfaction in Vietnamese universities. The researchers surveyed 381 professors. Duong et al. highlight some managerial implications for knowledge management systems that may increase academic staff satisfaction and teaching motivation.

Merete Schmidt, Can-Seng Ooi and Becky Shelley's article has the title "School is not for me": Young people's perceptions of being a self-directed learner in a small rural Tasmanian town" and is another contribution on Australia. In this paper, the authors argue that a deeper understanding of the underlying drivers of retention and engagement in diverse social and cultural contexts is vital in supporting Tasmania's Education Act of 2016. Drawing on qualitative data, this paper provides insights into how a group of Grade 10 students in a small rural town in Tasmania chose to leave school early or continue to some form of post-compulsory education. Schmidt et al.'s paper highlights how perceptions of being a self-directed learner and feelings about the future shape young people's educational decisions.

Naima Al-husban's "Investigating Syrian refugees' education in Jordan: From policies to pedagogy," examines the gap between policies and practices in the context of refugee education in Jordan. Al-husban's contribution appears to be amongst the first journal articles on this important and under-researched topic. She analyses official guidelines that outline the priorities of refugee education and compares them with the perceptions of teachers of refugees with a focus on the types of curricula refugees study and the professional development programs these teachers receive. Al-husban's study reveals the gap between what policymakers think and what teachers perceive in terms of education. It highlights the importance of advancing education when strategising future refugee education policies.

The next article by Valentine Joseph Owan, Mercy Valentine Owan and Neha Lata explores a large body of literature focusing on teachers' service delivery and other related concepts. In "Discharge of pedagogic duties: A bootstrapped structural equation modelling of teachers' use of research materials in school libraries", Owan et al. study how teachers use library research materials and its impacts on teachers' discharge of pedagogic duties across seven areas. Impressively, a structured questionnaire collected primary data from 2,406 teachers and 7,218 students. The authors' study shows that teachers' use of library research materials is crucial for the instructional process. It serves as the information bank in schools and as a source of instructional materials to enabling educational practitioners to plan and deliver practical lessons.

The final research article in the main section is by Jerome Oko and entitled "Teaching methods that influence Grade 12 students' mathematics results in Port Moresby, Papua New Guinea" Oko's contribution focuses on the teaching methods teachers employ in the classroom that affect Grade 12 students' mathematics results. A mixed-method research approach is applied in this study. Three different teaching methods (teacher-centred, student-centred, and a mix of the two aforementioned approaches) are identified. The student-centred method had a significant and positive influence on Grade 12 students' mathematics results. Oko concludes that more attention should be given to student-centred and mixed approaches to improve Grade 12 students' mathematics results.

Our issue also contains a special section that is guest-edited by Tania Aspland and Vanessa Stafford. It was first mooted at a 2021 Symposium of Learning and Teaching (SoLT) organised by the guest-editors and colleagues from Kaplan in Australia. The special section contains a preface, four research articles, and a brief paper. In their preface, Aspland and Stafford give a brief introduction to the purpose of

Kaplan Australia's ongoing learning and teaching symposia. The theme for the 2021 symposium was "Empathy, kindness, and presence: Uncovering the human(e) element of teaching and learning". This topic was chosen during a tumultuous time of worldwide educational, professional, and personal upheaval due to the global pandemic.

The first article of the special section is by Tania Aspland and Jillian Fox. It is titled "Teacher presence through the lens of kindness". In March 2020, one Australian higher education provider, like many others, found itself pivoting into fully online teaching as the nation managed the Covid-19 pandemic and campuses closed. The journey to adapt and change one's practices to offer students the highest quality learning experience was a big challenge. Aspland and Fox discuss the challenges faced, and the concepts of presence and kindness are the focus of this paper. The positioning of kindness within Garrison's framework of inquiry is proposed as a proposition worthy of further research, particularly if higher education in Australia continues to be uncertain and fraught with change.

The special section's second article is by Eunice Tan. In "'Heartware' for the compassionate teacher: Humanizing the academy through mindsight, attentive love, and storytelling", she discusses human(e) elements of learning and teaching such as empathy, kindness, and compassion. The paper is conceptual and proposes an approach to humanise the academy through the coaction of mindsight, attentive love, and the teacher storyteller. A conceptual framework illustrating the human(e) dimensions of 'heartware' for the compassionate teacher is also proposed.

The third article by Vanessa Stafford is on "Successful collaboration in online learning through skills and community building: a women in leadership MBA subject case study". Stafford uses an illustrative case study to demonstrate the applications of several theories and aligned models to achieve online social constructivism. The educational philosophy used in its syllabus design and facilitation was to put community-building activities before content teaching so that technology and collaboration skills were developed in a supportive, scaffolded manner, better equipping students to engage in effective, collaborative content learning. This case study provides presumptive evidence that placing community-building activities before content teaching within weekly lesson plans results in strong student collaboration skills development that may contribute to higher student satisfaction levels with collaborative learning.

The final research article of the special section is by Rita Day and Susan Robinson, entitled "Kindness as ethics-in-practice in the business curriculum". They explored the pedagogic potential of kindness as a taught construct within a business ethics programme. Kindness in the curriculum is a topic often taught in early years' education but seldom at the tertiary level. Day and Robinson's research investigate the reasons for this difference. They argue that for a business ethics course, business viewed through the lens of kindness should not be seen as an extracurricular activity but rather be deconstructed as ethics-in-practice. They showcase a practice-based research intervention via a one-day student enrichment activity, which looks at kindness through the

lens of philanthropy.

The special section's final piece is a brief article by Indika Karunanayake, titled "Making assessment feedback effective in higher education: A review of literature". Assessments and feedback are interrelated and play a vital role for students, educators, and institutions. However, giving feedback can be daunting for educators and receiving feedback can be unsatisfactory for students, diminishing the effectiveness of further improvement of students' learning. Karunanayake reviews recent literature and proposes five key areas – (i) content; (ii) tone and language; (iii) feedback literacy, (iv) educator training; and (v) assessment design and marking guidelines – for educators and their institutions to improve the feedback process, thereby improving the learning experiences of students.

The remainder of the current issue consists of an educational technology article, two brief articles and four book reviews. Vanessa Stafford's EdTech article is entitled "Using Google Jamboard in teacher training and student learning contexts". It examines Jamboard as a tool for learning. Stafford's review focuses on how this easy-to-use platform can be used in two contexts: teacher-training sessions within a Scholarship of Teaching & Learning (SoTL) program and by educators in the classroom for student learning activities.

The first brief article is by Justin O'Brien and co-authors. In "Experiential learning exercise: Designing a pirate community using the cultural web", they explore experiential-oriented pedagogy. The authors use such designs to provide an opportunity for icebreaking or community building using a team-based activity, apply the cultural web framework in a performative, open-space learning context of the historic pirate culture, and connect the learning experience to job hunting, specifically helping students assess their fit with potential employers. Such pedagogy is helpful for professional development, management, leadership, and organisational modules where a lean-in, experiential-oriented pedagogy is deployed.

The second brief article by William Siew et al. is titled "Designing for inclusive and engaged communities". The authors discuss a pilot health district design innovation programme aimed to empower budding designers with skills to reimagine through ideation and prototyping and to articulate their value-driven solutions for an inclusive and engaged Queenstown community in Singapore. Laudably, student teams co-created ideas around functional living, disease prevention and healthcare delivery with residents and stakeholders. Siew and co-authors' research observed increased student understanding (in their self-perceptions) of inclusive design. Students also felt more confident in critically analysing problems related to persons with reduced cognitive ability and their carers, and this resulted in impactful solution ideas enabled by empathetic technology.

The final section encompasses four book reviews. Arthur Shelley reviews *Unleashing the human mind. A consilience approach to managing self* by Bennet, Bennet and Turner. The book discusses the relationship between life and identity, what it means to be human, and our learning. It takes readers on a deep and wide exploration of how learning is essential

to who we are and how we engage with the world. Shelley enthusiastically recommends "Unleashing the human mind" as the most comprehensive and enlightening book he has read on learning for the future.

Mohamed Fadhil reviewed *Uncommon sense teaching: Practical insights in brain science to help students learn* by Oakley, Rogowsky and Sejnowski. The book discusses and applies concepts in neuroscience research to the modern-day classroom. Drawing on research findings and the authors' combined decades of experience in the classroom, Oakley et al. provide education practitioners with the essential knowledge and tools to improve their teaching practice, whether they are experienced professionals or simply parents hoping to offer extra support for their children's education.
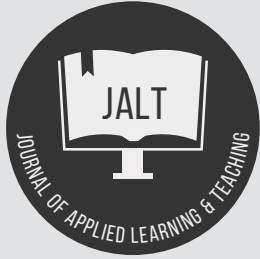
A third book review is written by Vanessa Stafford. She reviews *Transformative autoethnography for practitioners – change processes and practices for individuals and groups* by Hernandez, Chang and Bilgen. The book aims to convince the reader that the transformation of the researcher (and those affected by their research) can be the intentional goal of autoethnographic research. Transformation can be more than a positive by-product of the methodology. When transformation is the goal, it can be applied to make tangible changes to practice. The latter is demonstrated to the reader through the Transformative Autoethnography Model (TAM). Stafford praises the authors' call for qualitative researchers to apply their research to practice for the common good.

Finally, Begüm Burak reviewed Louis Yako's Bullets in envelopes: Iraqi academics in exile. After the U.S. invasion of Iraq in 2003, many Iraqi academics were assassinated or received bullets in envelopes (hence the book's title) as a sinister warning to leave the country. Many fled into exile. Yako's book offers a genealogy of loss and a ground-breaking assessment of the dismantling and restructuring of Iraqi academic institutions. Burak highly recommends Yako's book which is based on extensive fieldwork in several countries.

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Is conducting interpretive studies within mixed methods research projects justified? Methinks not

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Executive summary

My principal concern in this paper is with matters associated with interpretive studies conducted as part of research projects deemed by their authors to be of a mixed-methods type. The stress throughout is on the importance when conducting an interpretive study as part of a research project where the plan is to also conduct a quantitative study, that researchers should, from the outset, make explicit how their selected research techniques can address their chosen topic. In other words, there is a need to indicate how one's chosen area of research is connected, first to an underlying research paradigm, then to a specific theoretical position within the paradigm, then to a specific methodology consistent with the paradigm and the theoretical position, and finally to a set of methods for data gathering and analysis consistent with all of this.

Keywords: Grounded theory; interpretivism; mixed methods; qualitative research; theoretical sampling.

Regularly reading statements by researchers at the beginning of many published papers that the results reported in them were the product of a mixed methods research approach was a stimulus for writing this paper. When something is being mixed, various things are taken and combined to produce a new substance. Yet, in most reported studies defined by their authors as being mixed methods studies, rarely was anything mixed. If it had been then, the researchers would have found some way to respond to what we see as a challenge of taking two or more methods and mixing them. Deliberating on possibilities left me perplexed as to how, for example, it might be possible when engaging in a single quantitative study to take a questionnaire and a standardised observation schedule and mix them to come up with some kind of a hybrid method for collecting data, not to mention how, when engaging in what is termed a mixed methods' study it might be possible to take a method used to produce data for content analysis and a qualitative method like participant observation and attempt to do the same thing.

Then there are those who say they plan to conduct a quantitative study and then use some qualitative data to 'breathe life' into the statistics. On that, let us imagine the research focus is on teachers co-operating in the workplace. For the quantitative study, the use of an observation schedule based on an operationalised definition of co-operation is proposed. The qualitative study to follow will involve teachers discussing co-operation in the classroom. A major problem, however, is that one cannot assume that a correspondence, if any, will exist between participants' own definitions of what constitutes co-operation, to be revealed in interviews, and what the observation schedule based on operational definitions with behavioural indicators will reveal.

Concurrent studies are, in fact, what is often undertaken by those claiming they are conducting a mixed-method study. I see much value in experienced researchers engaging in those. However, I add that they should be clearly labelled as complementary to avoid confusion. I recognise, too, that research projects can be even more ambitious than accommodating just two complementary studies. For example, separate historical, comparative, philosophical, quantitative, and qualitative studies of a phenomenon can be conducted. The results of each can be presented later as separate chapters in a report or a book, concluding with a discussion on insights for extending existing theory and informing policymakers and practitioners. Those who proceed along such lines are usually well aware of arguments that relate to separating each study, including that engaging in quantitative research essentially involves testing hypotheses based on operationally defined concepts, while qualitative research is concerned with generating theory about participants' own 'definitions of a situation'. Because these two practices are so different, any suggestions that results yielded by each can be 'mixed together' makes little sense.

My principal concern in the rest of this paper is not with mounting a major critique of all aspects of works deemed to be mixed methods studies. Rather, my concentration is more specific, namely, on matters associated with interpretive studies conducted as part of research projects deemed by their authors to be of a mixed methods type. On that, I stress

that it is important when conducting an interpretive study as part of a research project where the plan is to also conduct a quantitative study, that researchers should, from the outset, make explicit how their selected research techniques can address their chosen topic. That cannot be achieved by building a research plan around a simple notion that first, we will use method one, and then one will use method two. Yet, a regular type of opening statement in published papers analysed goes like this: 'In this project, we adopt a mixed methods approach.' Such a statement is of value when it is subsequently made clear to readers what connection exists between it and the overall research question or aim detailed for the project. Usually, however, the connection is either weak or absent. That is because they lack an account of why the researchers addressed their research aims and/or questions in a particular manner adopted. And even when there is some elaboration, what is usually presented is often just additional statements like the researchers 'explored the question and/or aim', they 'interrogated a space', they 'explored participants' understandings', they 'sought stakeholders' perspectives on five focus areas', or 'key foci included relevant parents' views about education in general and their schooling experiences'. Such statements do not fulfil the need to illustrate how chosen research methods were part of a plan that led from not-knowing to knowing. Rather, they indicate that there was a sidestepping of providing convincing arguments showing how what was sought operated to get one to one's goal and how the component parts of the research design linked together.

A useful way to indicate how the latter is problematic, including in relation to the interpretive component of a research project, is to consider that authors of what they term mixed methods studies rarely elaborate on research paradigms and indicate in detail how their research was located within them. On that, I note that ideas related to the positivist and interpretivist paradigms have influenced the production of much research in education over the past 30 years or so. The principal interest of positivists is the pursuit of technical knowledge. Accordingly, their research focus is often associated with behaviourist psychology and functionalist sociology. The model of the 'typical' initial research strategy is to formulate hypotheses, set up and record observations, quantify the data, and present findings seen to provide knowledge that is objective, generalisable and usable to predict and control events.

In interpretivism, the emphasis is on social interaction as the basis for knowledge. Thus, researchers use their skills as social beings to try to understand the world as others understand it. Knowledge, in this view, is by mutual negotiation, generated as theory. Usually, too, it is specific to the situation investigated. Moreover, because multiple realities are assumed, theory generation requires engagement in interpretation. Thus, while the findings of positivist studies are based on researchers' 'definition of the situation', in interpretive studies, researchers set out to achieve the results of engagement in theory generation, where theory is understood as concepts and relationships between them.

To state the latter is not to say that positivists cannot use the theory they generate in an interpretivist study to engage in related statistical studies. On that, though, it is important to realise that to do so, what is required would mean conducting a multitude of positivist studies as part of a comprehensive programme of research to explore all aspects of a phenomenon using theoretical constructs generated by just one interpretivist study. That criterion is not met by advocating for a research project where one qualitative study is followed simply by just one quantitative study.

Continuing still with my focus upon interpretive research conducted within studies deemed to be mixed method projects by their authors, it is instructive to point out also that while some engaged in superficial genuflecting to the ideas of particular 'masters' associated with such interpretivist research sub-fields as symbolic interactionism, phenomenology, and hermeneutics, rarely have they given indications how those ideas translated into research planning steps through the fundamental logic of research design. In other words, there has been a failure to indicate how the chosen area of research connected, first to an underlying research paradigm, then to a specific theoretical position within the paradigm, then to a specific methodology consistent with the paradigm and the theoretical position, and finally to a set of methods for data gathering and analysis consistent with all of this.

A major source of related perplexity generated on reading many studies of the type under investigation relates to the use of the terms 'perceptions', 'attitudes', and 'behaviour'. Regarding 'perceptions', statements like "we explored pre-service and in-service teachers' perceptions", "we inquired into middle leaders' perceptions of their work", and we explored "perceptions of past, present and future lives" appear regularly in the papers analysed. The overall problem here is that the concept of 'perception' has roots in Gestalt psychology, which

> …emphasises the central importance of 'perception' in human behaviour: The human being acts according to how the situation is perceived. Gestalt psychologists have attempted to isolate various principles of perception in order to better understand how the individual organises the stimuli he or she confronts. Gestalt psychology, as such is entirely psychological in its orientation (Charon, 2001, p. 21).

Micro-sociology, on the other hand, is intimately intertwined with the interpretivist position of sociological social psychology (as opposed to psychological social psychology), which "is distinct from much of psychology by de-emphasising the person as cause; it is distinct from much of sociology by de-emphasising the power of social patterns and society at large" (Charon 2001, p. 21). Rather, the focus is on 'social interaction', which can be defined as the on-going, back-and-forth action that participants take towards one another.

A similar issue arises regarding the use of 'attitude'. That concept, central within positivist psychology, is usually defined as one's predisposition to act towards a class of objects in a certain manner when engaged with them. Moreover, the view is that attitudes can be carried around

from situation to situation, with the external environment acting as a stimulus for them to become manifested in behaviours. Interpretivists reject this as it views individuals as passive, as not being in control of their actions, and as being directed by an attitude. Rather, the view of interpretivists is of individuals as active beings, and they stress also the importance of considering people's 'active definitions of situations.'

Interpretivists also view all human action as meaningful and to be interpreted and understood within the context of social practices. That, in turn, results in speaking of 'human action' rather than 'human behaviour'. Relatedly, while positivists refer to events as having 'causes' and to 'human behaviour' as the outcome of external influences, interpretivists speak of 'human actions' as having 'reasons.'

Another source of confusion centres on the use of a variety of terms simultaneously in relation to the central focus of the research. Even when the terms 'perceptions', 'attitudes', and 'behaviour' are excluded, there can still be a problem in relation to others. When, for example, it is stated that the research is about areas like understandings, meanings and perspectives, a reader is prompted to go to the results section of a paper and see what is reported in relation to each of these. Rarely, however, is that section organised in such a manner, or are the results related back to even any one of those supposedly central concepts. An associated failure overall is that there is a lack of recognition that at the heart of interpretivism is the need to focus on one core concept in a manner somewhat akin to the notion of seeing the cell as being at the heart of the study of biology or the atom as being at the centre of the study of chemistry.

Within interpretivism, the concepts of 'understanding', 'meaning' or 'perspective' are core. Thus, a central aim in an interpretivist study can be framed as being about the generation of theory regarding the meanings (or the understandings, or the perspectives) participants hold regarding something. Each, I hold, means largely the same thing, and each can be used. At the same time, just one of them, whichever it is, should be used, and used consistently, since to use them interchangeably in any one study only adds further to confusion.

I favour the use of 'perspective.' It is central within the Chicago School of Sociology, the most dominant tradition in interpretivist research. Moreover, those scholars associated with that tradition defined the term in a manner that facilitates breaking it down into a set of components to detail a set of research guiding questions that allow an investigation to proceed systematically. Such a process, however, is rarely engaged in by many researchers. Instead, they imply that the choosing of a theoretical position proceeds in a lock-step manner following an identification of both a research aim and research questions. To subscribe to this is to ignore the intimate relationship that exists between a paradigm and one's theoretical position.

To put the latter another way, an understanding of the paradigm and the theoretical position should influence the phrasing of the research aim and questions in any research plan. Instead, what is usually presented is a set of research questions arrived at from an understanding of the practical world only. As a result, it is left to the reader to somehow work out what logic, if any, might have been used by the researchers to move considerations from giving a brief statement regarding a research paradigm and an associated theoretical position, to arrive at a set of questions posed.

I now elaborate on how the latter matter can be addressed when adopting the concept of a perspective as central within a general interpretivist study, referring where appropriate to key theorists in the field from the 1950s. Charon (2001) defined a perspective as consisting of words used by an observer to make sense of situations, adding that it "is an absolute basic part of everyone's existence", and "acts as a filter through which everything around us is perceived and interpreted" (p. 6). A related notion is that perspectives develop when people choose between alternatives (Potts, 1997). Additionally, if certain situations occur repeatedly, a perspective may become a fixed part of an individual's way of dealing with reality (Becker et al., 1968, p. 35). Also, there may be a need to distinguish between immediate and long-range perspectives. Furthermore, while any given situation may not be interpreted in the same manner by everyone, group perspectives – "when people see themselves as being in the same boat" (Becker et al., 1968, p. 36) – can develop and become taken-for-granted ways of thinking.

Finally, not only can perspectives change many times throughout one's life, they can also change from situation to situation (Potts, 1997, p. 20). On this, interpretivists speak of perspectives as being 'situational'. Charon (2001, p. 27 elaborated: "In the classroom my perspective is that of teacher-sociologist; in my home it becomes father or husband; on a fishing trip it changes to 'seasoned fisherman'". Each situation, she concluded, requires taking a different role, which means having a different perspective.

Interpretivist research on participants' perspectives can only be conducted, of course, if the issue to be investigated is one with which participants engage in a meaningful way. Assuming it is, then the central research aim for a project can be stated along the following lines:

- The aim of the study is to generate theory on teachers' perspectives on parental involvement in school decision-making.

- The aim of the study is to generate theory on the perspectives of French teachers teaching in Scotland on what is effective teaching.

- The aim of the study is to generate theory on the perspectives of key stakeholders on the quality assurance policy implemented in the university sector.

These formulations may appear very restrictive. Misgivings in that regard, however, dissipate on realising how a perspective can be broken down into a set of components that allow for the great range of aspects of a research area to be explored,

The latter practice requires that the stated research aim be rephrased as an overall research guiding question. Considering this in relation to the first research aim detailed above, it is not a matter of simply stating: What are teachers' perspectives on parental involvement in school decision-making? To do that would be to presuppose that 'out there' exists a suite of already-identified perspectives and that what one needs to do is identify those that relate to one's participants. Rather, an interpretive research project is planned on realising that there is no such suite and that, thus, there is a need to generate it. Hence, what is really needed is an overall research guiding question like the following: What is the most robust theory we can generate regarding teachers' perspectives on parental involvement in school decision-making?

And yet, without an accompanying set of sub-guiding questions, no defensible way presents itself on how to progress further with data collection. On that, detailing specific questions in a positivist fashion is not an option. Rather, a comprehensive set of questions is required to guide conversations across the range of areas related to the phenomenon under investigation such that data collection can yield a wide range of participants' perspectives to draw upon to address the central research aim.

Blackledge and Hunt (2018) have proposed that a perspective on any phenomenon has four intertwined components, namely, one's intentions regarding it, strategies one says one uses to try to realise those, what one sees as significant about one's intentions and strategies, and what outcomes one expects from one's activity. Elsewhere (O'Donoghue, 2018), I have contended that participants need to be canvassed on all four areas, that any less is insufficient, and that there are no more because of the 'closed' nature of the model. Furthermore, because interpretivists emphasise the capacity of individuals to be able to account for their actions, it is crucial that the researcher also constantly probes, asking one why one says what one does.

Applying then what has been argued by again focusing on the first of the research aims detailed above, yields the following:

Research aim

- The aim of the study is to generate theory on teachers' perspectives on parental involvement in school decision-making.

- *Central guiding question*

  What robust theory can be generated on teachers' perspectives on parental involvement in school decision-making?

  Research-guiding questions

  1. What are the teachers' intentions regarding parental involvement in school decision-making? What reasons do they give for these?

2. What are the strategies the teachers say they use when dealing with issues related to parental involvement in school decision-making? What reasons do they give for this?

3. What significance do teachers say they attach to their intentions and strategies in relation to parental involvement in school decision-making? What reasons do they give for this?

4. What outcomes do teachers say they expect from embracing their intentions and strategies in relation to parental involvement in school decision-making? What reasons do they give for this?

From here, it is possible to generate a series of conversation questions in relation to each guiding question. Those need to be such that one is confident they have the potential to engage participants in as wide a range of conversations as possible on each guiding question. There is a need also to be open to the possibility that some of them may be unproductive with some participants and should not be pursued with them, while unanticipated ones may suggest themselves during interviewing and should be pursued where productive, including by returning of those interviewed earlier.

Then there is the matter of how many participants should be in a research project. On that, one regularly reads statements like' through in-depth, semi-structured, interviews, the qualitative study examined the perspectives of nine parents of early school leavers about the factors contributing to young people from this area leaving school early.'.: ' I consider such statements to be problematic since it is reasonable to ask why a few more individuals or a few less were not studied. In making that point, I recognise that because interpretive studies are ideographic, they are also, by definition, restricted to understanding events or human actions within specific cultural contexts. Thus, each appropriately stated research aim needs to be followed by a sub-title that goes something like this: 'an interpretivist study in four Montessori schools in one county.' Immediately, that places a limit on the number of participants required. Equally, I recognise that there is no obligation to work with a large number located within such limits since the aim is to generate theory rather than test hypotheses. To put it simply, a much smaller number of participants is required to generate theory, understood as heuristic devices or 'tools' by which we can speak intelligently about the phenomenon under investigation than is required if we are trying to discover 'findings' that are generalisable from the results of a study of a sample of a population to a total population.

Knowing, however, that there is no requirement to work with a large number still does not indicate how many are appropriate. The challenge is a methodological one, where methodology is viewed as a strategy, plan of action, process, or design to link paradigm-guided questions with methods. On that, the methodology most solidly related to the interpretivist paradigm is that of 'grounded theory', which is best defined as a research strategy whose purpose is to

guide theory generation from data collected and analysed simultaneously.

With whom, then, should researchers commence their interpretivist grounded theory research? A standard approach is to imagine the ideal research setting as "one in which the observer obtains easy access, establishes immediate rapport with participants, and gathers data directly relating to the research interests" (Taylor & Bogdan, 1989, p. 19). Being 'ideal', of course, means that the situation to which there is a desire to gain access does not exist fully, yet researchers should do their best to approximate it. Having done so, they can commence by interviewing one participant and engaging in analysis.

The latter involves generating concepts and comparing and clustering them using the methods of 'constant comparison' and 'constant questioning' (Charmaz, 2014). As concepts are generated from close examination of data, they are given labels that form the basis for categorisation schemes. While these category-names are abstractions, the labels are generally sufficiently graphic that the nature of the material to which they refer is clear. Operating in this manner, one moves on to the next participant and the next one, in each instance building analysis upon analysis by generating hypotheses about categories and about their relationships and interrelationships, and then testing those with the data being generated.

The research can be commenced with any participant from the defined group. But where to from there? The grounded theorist's response is captured in the notion of 'theoretical sampling' where "the actual number of 'cases' studied is relatively unimportant. What is important is the potential of each 'case' to aid the researcher in developing theoretical insights into the area of social life being studied" (Taylor & Bogdan, 1989, p. 83). Thus, after completing an interview, researchers should seek out a participant they feel may be very different on criteria deemed important. Through engaging time after time in this 'negative case selection' (Mikkelsen, 2017), they can get close to uncovering the full range of perspectives held by those in whom one is interested. Moreover, one has an idea one has reached this point when interviews with additional people yield no new insights. In other words, 'saturation', or the inability to develop categories further in terms of their properties and dimensions no matter how much new data are collected, is reached.

Experienced researchers adopting the latter approach appreciate that they may stop at any level of analysis where saturation has been reached in relation to just some categories being generated. They are also comfortable with the notion that researchers may formulate and reformulate their research, developing it out where they judge that it is yielding a poor return for effort and contracting it where it appears to be too broad in scope. A beginner, however, often seeks from the outset to work within a clearer set of parameters, not least so that a reasonable prediction can be made regarding the length of time required for conducting the research.

A way of establishing parameters is suggested by Stainback and Stainback's (1984, p. 299) "pragmatic approach" labelled "modified analytic induction." It involves the researcher defining a population tightly, thus limiting the applicability of the theory generated to a specifically defined group. Alternatively, a researcher may determine the number of cases he/she has the resources to handle and test the theory being generated in relation to those cases only and making no claim that it is inclusive beyond the defined set. Within this bounded system (Adelman et al., 1976), it will still, of course, be necessary to engage in theoretical sampling. Relatedly, it is possible to narrow a study's focus by defining the area of interest from the outset as relating to a population small enough for all members of it to be potential participants.

Another issue centres on how the concept 'triangulation' is often embraced uncritically by various authors. Originating in radio triangulation, the source of radio broadcasts is determined using directional antennas set up at the two ends of a known baseline. By measuring the angle at which each of the antennas receives the most powerful signal, a triangle is erected and, using simple geometry, used to pinpoint the source at the vertex of the triangle opposite the baseline. Post-positivists, opposed to a view that positivism could best approximate truth, deduced that the concept constituted a useful metaphor to demonstrate that such approximation could be enhanced if data were collected using at least three sources.

It makes no sense, however, to speak about 'triangulation' in interpretive studies. Yet, some say they engaged in it because they used data from two or more sources. Some also even say that their triangulation allowed them to validate data through cross verification. However, the process has nothing to do with the interpretivist's aim to generate theory. Instead, the reason, and the only one, for interpretivists to seek to generate data by using more than one research method is to enrich the quantity and quality of data available for theory generation.

Finally, while what is reported in studies like those analysed is usually referred to as theory, in nearly all cases what is presented is general themes alone, illustrated with quotations from data. Moreover, the exposition is usually in the past tense, even though it is meaningful for social scientists to only present the constructs they develop in the present tense. After all, cases are studied, not to be reported as such, but to yield data from which theory can be generated. Moreover, a full-blown social science theory contains not only a comprehensive range of concepts generated but also their properties and dimensions, all organised as an integrated framework of relationships. Within the latter, too, one may find concepts related in the form of typologies, propositions, and models. These can be used in a comparative fashion to alert researchers to what might be common in similar phenomena under different conditions. As 'substantive theory' it could, alongside many other similar studies of the phenomenon in question examined in different types of situations, contribute also, in the fullness of time, to 'formal theory.'

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Distance teaching in media departments in times of the COVID-19 pandemic. Experiences from six Arab countries

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Article Info

Abstract

The present study describes, assesses, and compares the experiences of distance teaching in media and communication departments in six Arab countries, including Egypt, Tunisia, Iraq, Yemen, Oman, and Qatar, during the early phase of the COVID-19 pandemic in the spring of 2020. Three research questions were answered through a cross-country comparison. 1) Which organizational steps and arrangements had to be taken by the administration and teaching staff to transition to distance teaching? 2) How was distance teaching perceived by students in the six countries? 3) How was the transition evaluated by the teaching staff, and which suggestions can be made for the future? To answer the questions, we collected empirical data from different groups involved in the teaching process, including teachers, administration, and students, through interviews, focus groups and a questionnaire. Results show that the necessity of teaching online from a distance took most Arab universities by surprise. A lack of infrastructure and financial means proved to be the most relevant problem in conflict-ridden countries like Iraq and Yemen, but also in Egypt and Tunisia. Given their low expectations, students were generally satisfied with the digital tools used in their institution, even though in some countries, the skills of the teachers were underdeveloped, and the infrastructure was lacking. The teaching staff, however, highlighted that they saw these changes as a move toward the modernization of their teaching.

Introduction

Mass media and communication studies is a unique field of interest for learning more about the strategies and perceptions related to distance teaching during the pandemic. This is because, first, communication and media studies students can be considered particularly open to new technologies and means of communication, as they have to adopt them in their future careers. Thus, their adaptation to and evaluation of online teaching during the pandemic is of particular interest. Second, teaching communication studies and journalism includes many practical aspects, and teachers need to instruct undergraduate students to develop their practical skills. A transition of these techniques to the online realm is especially challenging.

In previous decades, teaching communication studies and journalism in the Arab world focused mainly on face-to-face methods and rarely adopted online or distance learning methods (Arafat, 2017; Alseady, 2019; Helmy, 2020). Thus, mass media departments and journalism schools in the Arab world faced a real challenge once the COVID-19 pandemic broke out in early 2020. Although journalism schools all over the Arab world faced the same challenges, they varied in their responses depending on the country-wide regulations imposed, their resources and technical capabilities, and their previous experiences with online learning and infrastructure. The present study aims to describe, assess, and compare the experiences of distance teaching in the media and communication departments in six Arab countries, including Egypt, Tunisia, Iraq, Yemen, Oman, and Qatar, during the early phase of the COVID-19 pandemic in the spring of 2020. We formulated three research questions that will be answered through a cross-country comparison. We rely on the empirical data of different groups involved in the teaching process, including teachers, administration, and students:

RQ1: Which organizational steps and arrangements had to be taken by the administration and teaching staff to transition to distance teaching?

RQ2: How was distance teaching perceived by students in the six countries?

RQ3: How was the transition evaluated by the teaching staff, and which suggestions can be made for the future?

After briefly introducing a theoretical framework and reviewing the literature on the status quo of online teaching in the Arab region, we will then answer the three research questions consecutively. To do this, a combination of qualitative and quantitative methods for data collection was chosen, including interviews, focus group discussions, and a questionnaire. The results will be presented in a comparative way with the six country cases.

Literature review and conceptual framework

Although the transition to distance teaching was a harsh and massive change in early 2020, distance and online learning are not completely new to Arab countries. For example, Arab countries with large populations and high enrollment rates in their universities consider online learning to be a solution to prevent overcrowded classes. Yet, based on higher education laws and regulations in many Arab countries, pre-COVID 19 online education was not recognized as an official teaching method.

In contrast, the economically better-off Arab Gulf countries perceive online learning as a way to strengthen their competitive advantages, yet only used certain tools such as Blackboard as additional means in the pre-COVID era. Many Arab countries had thus already tried to adopt online means of education even before the pandemic, either in their open education programs or in their undergraduate programs, but very cautiously and never with full force (Arafat, 2017; Alseady, 2019; Helmy, 2020).

However, we also need to be clear on how we define "distance teaching." We support a definition of distance teaching that refers to a form of education in which the main elements include the physical separation of teachers and students during instruction and the use of various technologies to facilitate student-teacher and student-student communication (Saykılı, 2018). Distance teaching is broader than "e-teaching" or "e-learning," which refers to students educating themselves remotely (Tophat, n.d.) in a process that is usually completed on an online platform, with the possibility of returning to the instructor whenever needed and not on a scheduled basis. Blended e-learning combines forms of remote learning and contact with a teacher. In the literature before the pandemic, the focus was mainly on e-learning and blended learning. In our study, we emphasize the notion of "distance teaching," which could include e-learning and blended forms, but strongly refers to the usage of digital tools.

So far, only a few studies on e-learning and distance teaching have been conducted on the Arab region when it comes to media and communication studies. In the field of media studies, some scholars have been interested in exploring, assessing, and experimenting with how e-learning methods would positively affect media education quality. Alseady (2019), for example, examined the effectiveness of a blended e-learning program in developing the cognitive and practical skills of mass communication students in journalism photography. Helmy (2020) designed an online curriculum for a "Writing for the Radio" course. Another objective was to measure media students' attitudes toward e-learning compared to traditional learning (Arafat, 2017). Others have looked to determine how online learning can help in building skills of self-learning (Salem, 2016) and increase learning motivation (Abdel & Helmy, 2018) and even self-determination among female students in Saudi Arabia (Alkahky, 2016). Most results have revealed the privileges of online learning, but the experiences described were measured on small-scale samples in Arab countries pre-COVID-19.

The massive breakout of the COVID-19 pandemic and the announcements of lockdowns all over the world resulted in prohibiting more than 1.5 billion persons from accessing educational institutions (UNESCO, 2020). All higher

education institutions had no choice but to transition to distance education as the only available alternative.

Shortly after the lockdowns, several scholars tried to document the process of transformation in teaching and the procedures implemented in different universities. Through a desktop review analysis, Crawford et al. (2020) provided a timely map of the higher education responses to COVID-19 across 20 countries, which included the three Arab countries of Egypt, Jordan, and the United Arab Emirates. They concluded that Egyptian universities utilized various tools to deliver online classes, including Blackboard, Moodle, e-mail, and Zoom. Jordanian institutions used e-mail, videoconferencing, high-speed internet access, and online legal libraries. Higher education institutions in the United Arab Emirates utilized Adobe Connect, Blackboard, and a virtual learning tool called Vision. In a related study, Alterri et al. (2020) explored how five higher education institutions in the UAE faced the challenges of this transformation. In addition, a total of 15 media faculties in Egyptian universities documented their experiences through separate reports, highlighting the opportunities and challenges they faced at the beginning of the transition period (Al-Samir et al., 2020). In another vein, qualitative research employing a phenomenological approach was used to study the lived experiences of three university teachers using e-learning during the COVID-19 pandemic, including two in Bangladesh and one in Saudi Arabia (Islam et al., 2021). The teachers reported acceptance, struggles, and negotiations at both the macro-level of policy decision-making (institutional) and the micro-level of online classroom practices (individual).

When reviewing media studies literature focusing on the experience of transitioning to distance teaching during the COVID-19 imposed lockdowns, one can conclude that scholars were mainly interested in assessing and measuring professors' and students' attitudes toward the transformation process (Salem, 2020; Darweesh, 2021; Gameel, 2021; Gabr, 2020; Lily et al., 2020). Gameel (2021), for example, measured Egyptian staff's attitudes toward using digital communication technologies. The results indicated partial satisfaction with distance learning.

Concerning the future of distance teaching post-COVID-19 in the Arab world, the results have pointed to the need to set up an educational strategy that includes distance teaching (Badr & Elmaghraby, 2020), designing online curricula (Mohamed, 2020), and enacting continuous training for both professors and students (Badr, 2020). At the same time, certain challenges have been found to be related to the lack of technological and organizational infrastructures (Younis, 2020), social and psychological pressures due to confinement regulations (Ahmed, 2021), and the diverse cultural predispositions of distance learning in Arab countries.

Our research has taken this as a starting point for further investigation. We rely on the socio-cultural analysis model to explain adaptation processes. This model is mainly concerned with social structures in the context of multiple changes. The focus on social structures helps highlight existing contradictions between various principles of structuration and organization, as well as existing gaps between the "official" features of society and social behavior (Balandier, 1985). This approach allows us to understand how dynamic factors within media schools shaped the transition from one teaching model to another. It can help explain how professors perceive their roles and the relationships between different generations of media professors, and it can explain how professors and faculty administrators have cooperated or not, and how well students and professors adapted to this period of massive changes.

Status quo of online teaching in six Arab countries before the pandemic

While reviewing the literature, one has to be clear that we cannot draw a homogeneous picture of the "Arab world" as a whole. Instead, we need to differentiate between different countries and their preconditions. The ways in which distance teaching has been adopted differ from one Arab country to another. All the selected Arab countries in this study operate governmental and private universities, yet they all function under the umbrella of the executive authority represented by either the Ministry of Higher Education or the Ministry of Education. Thus, our sample reflects the specific national and political–economic characteristics of different Arab countries that shape the modes and perceptions of distance teaching.

We can group the six countries into three different categories. The first category includes schools from Egypt and Tunisia. Despite their long history of teaching media studies, both countries are unable to provide the most recent software and hardware applied in media studies teaching methods. Also, Egypt has lagged behind in adopting a legal framework for online teaching.

Egypt was the first Arab country to establish a journalism and media studies department in 1939. The mass communication faculty of Cairo University was considered for decades to be the "mother faculty" in most Arab countries (Richter & Badr, 2017). Nevertheless, it was not until 2005 that an e-learning unit opened in one of the regional universities in Egypt. The mass communication faculty at Cairo University began its complete online master's program in 2008, though the faculty board refused to consider it a master's degree that qualifies graduates to apply for a PhD. It was not until March 2020 that the Minister of Higher Education agreed to embed distance learning as a recognized method of education and encouraged universities to adopt a hybrid teaching methodology.

The Tunisian experience differs from Egypt with regard to the legal framework for e-learning, but not regarding practice. Regulations existed well before the pandemic. In 2008, the law of higher education no. 19 was issued, including e-learning, among other educational methods (Virtual University of Tunis, n.d.). Even before that regulation, a virtual university was launched in Tunis in 2002 to enhance distance learning. However, because of financial and technical challenges among the diverse body of students, distance teaching was not fully activated until the pandemic crisis.

The second category includes Arab media schools' experiences in conflict zones, which are represented by Iraq and Yemen. These countries are not only suffering from a lack of infrastructure, but also from long-term political conflicts and armed disputes, which add more challenges to establishing distance teaching programs. Sana'a University in Yemen adopted e-learning as a method in 2004, and the council of ministers agreed to establish the public administration of e-learning in 2012 (Al-Qobati, 2014). However, distance teaching was not activated until the pandemic in mid-2020. In Iraq, there was no training in any online methods prior to the pandemic (Taher, 2020).

The third category includes media schools in stable Arab countries with a generally good technical infrastructure; these include Qatar and Oman. The two cases reflect typical examples of Gulf media schools that have achieved much technical and program development. Nevertheless, they still mainly depend on professors from many countries who often rely on the methods they were trained in abroad. For example, at the Mass Communication department at Qatar university, there are only six professors of Qatari origin, while 22 come from many different Arab countries (Mass Communication Department at Qatar University official website, 2022).

In the Gulf area, e-learning platforms already existed before the pandemic. The selected university in Qatar used the Blackboard platform (Qatar University, n.d.). In Oman, Al-Bayan College used the Canvas platform (Al-Bayan University, n.d.). The second university in Oman used the Blackboard platform (University of Technology and Applied Science Nizwa, n.d.). Before the crisis, these platforms were mainly utilized as an assisting teaching tool to upload course materials, reports, projects, and assignments and to post announcements to students, but not as the main tool in the learning process. The platforms were not used in delivering lectures, quizzes, or exams.

Data collection and methods of analysis

The study employed both qualitative and quantitative tools and methods of analysis to collect data and used questionnaires, interviews, and focus groups to address the three RQs. Our sample consisted of 11 universities from six Arab countries, including Egypt, Tunisia, Iraq, Yemen, Oman, and Qatar. Sample selection methods varied, reflecting the complex situation in each country. In Tunisia and Qatar, for example, only one university in each country was selected due to the concentration of media and journalism education in these institutions (Institute of News and Journalism at Manouba University and Faculty of Arts and Science at Qatar University). In Egypt, two universities, one public and one private institution, were chosen (mass communication faculties at Cairo University and Ahram Canadian University). In Iraq, two public universities were selected because there is no private mass communication department in Baghdad. Due to restrictions of movement, we focused the sample on Baghdad (mass communication faculties at Al-Iraqia University and Baghdad University). In Oman, two private universities under the supervision of the Ministry of Higher Education were selected (mass communication department

at Al-Bayan College and the Faculty of Applied Science at Nizwa University) because of restricted access to students and staff in the public university. In Yemen, major problems with the internet and political instability required that the Yemeni researcher applied both online and face-to-face interviews in media departments in different universities, including Sana'a University, University of Modern Science, and the University of Science and Technology.

To answer RQ1 (Which organizational steps and arrangements had to be taken by the administration and teaching staff to transition to distance teaching?), we conducted between four and 13 qualitative interviews in each country with academic staff (assistant professors and above) who were involved in teaching during the pandemic. The interviews focused on their description and evaluation of the transition to distance teaching during the first lockdowns, including the organizational arrangements, technological competencies, teaching methods, and strategies. With this qualitative tool, we were able to get first-hand information and personal evaluation from those strongly involved in planning and conducting the teaching under pandemic conditions. In addition, some of the information gathered in the focus groups for RQ3 also helped to answer RQ1.

To answer RQ2 (How was distance teaching perceived by students in the six countries?), we developed an online questionnaire that was distributed to the students of the respective universities in the sample. The online survey was divided into three parts. The first part investigated the learning tools and methods used by the students in the six countries. The second part was to measure students' satisfaction with distance learning experience during the first wave of the pandemic. The third part was devoted to future suggestions and their potential support to the use of online educational methods in the future even after the pandemic. In Iraq and Yemen, face-to-face interviews using the questionnaire were also conducted, as the researchers recognized difficulties related to internet access among many students. The respondents amounted to 1,063 students, including 68 students in Tunisia, 84 students in Qatar, 161 students in Oman, 184 students in Yemen, 265 students in Egypt, and 301 students in Iraq.

To answer RQ3 (How was the transition evaluated by the teaching staff, and which suggestions can be made for the future?), we aimed to organize at least one focus group in each country, including the deans and vice deans of the departments, heads of committees, and professors who were part of the distance teaching process to incorporate different perspectives. In some cases, focus groups could not be organized, so more individual interviews were conducted. Evaluations from the individual interviews in RQ1 thus also informed parts of the results in RQ3.

Table 1: Overview of sample distribution.

Country	Universities	Student sample	Staff Sample
Egypt	• Cairo University (state) • Ahram Canadian (private)	Survey: 265	Interviews: 7 Focus group: 9
Tunisia	• Manouba University – (state)	Survey: 68	Interviews: 4 Focus group: 4
Iraq	• Baghdad University (state) • Al-Iraqia University (state)	Survey: 301	Interviews: 4 Focus group: 5
Yemen	• Sana'a University (state) • University of Modern Sciences (private) • University of Science and Technology (private)	Survey: 184	Interviews: 13
Oman	• Bayan College – (private) • The College of Applied Sciences Nizwa (CAS Nizwa) – (state)	Survey: 161	Interviews: 6
Qatar	• Qatar University – (state)	Survey: 84	Interviews: 6
Total	11 Universities (7 State - 4 private)	1063 students	58 interviewees

Results

1) Which organizational steps and arrangements had to be taken by the administration and teaching staff to transition to distance teaching?

The core question in our interviews concerned how the various faculties managed to technically, administratively, and educationally adjust to the transition.

In Egypt, both Cairo University and Ahram Canadian University adopted open source software on the internet as quickly and freely available tools. Neither department had any online learning management system (LMS) at hand, such as Blackboard. Although both departments shared the same vision, they took different paths of implementation.

The mass communication faculty at Cairo University gave staff members the freedom to choose whatever tools were suitable for them. As the dean justified, "We did not want to panic the staff by imposing a specific online source on them" (Mustafa, 2020). The first steps included recording videos of lectures and uploading them on YouTube. "This was the most efficient and quickest way, since our studios are available and professors from any age range can come and record their lectures, then younger generations of assistant professors would upload the material on YouTube" (Awadely, 2020). Interactive methods differed among the staff, who mainly selected WhatsApp and Facebook groups to communicate with the students. As the dean reported, "They preferred to choose tools they are familiar with." (Mustafa, 2020). Younger generations of professors used Zoom and Schoology because "they can easily master these applications", explained one assistant professor (Zaki, 2020); others refused to use any direct communication methods and relied on video and audio recordings of the lectures. "As the oldest school of media in the Arab world, we have especially older generation professors who were not convinced at all of distance learning as an educational method", added the vice dean (Awadely, 2020).

In contrast, Ahram Canadian University's department adopted one method to be applied by the entire faculty. They used Google Classroom for uploading lectures, assignments, and evaluations and utilized Zoom as an interactive tool to meet students in synchronous lectures mirroring the old face-to-face schedule. As the dean explained, "We were able to transition to Google Classroom the next day. The decision was made because we had experience using Google Drive to upload materials and lectures for students, so somehow our students were familiar with the platform" (Abou Youssef, 2020). The vice dean added, "Several training sessions were given to full-time professors, teaching assistants, and part-time professors. It took one-to-one training on how to use Zoom and Google classroom" (Khoraby, 2020).

In Tunisia, Google Classroom and Google Meet were selected as open source tools on the internet to be used as an alternative to face-to-face courses. Yet, professors and students preferred to use WhatsApp and Facebook groups as an easier method, even though these are not considered educational platforms. Professors were used to Facebook groups, so they interacted with their students in these groups; others continued using e-mails as a method of communication.

The above results show that both of these Arab countries that resemble each other in their economic problems and educational experiences took similar paths, which can be described as a laissez-faire attitude that allowed for a quick and unregulated transition to distance teaching. This shift relied heavily on self-organization and personal commitment, while it lacked a systematic pedagogical approach and a long-term strategy.

In Iraq, university staff were not ready for the transition process and were taken by surprise. The universities never had previous training in distance learning. As the dean of Baghdad University explained, "We did not have enough time to transition to distance learning. It was a method we had never applied in our universities before" (Taher, 2020). Communication and media faculties and departments faced "a real obstacle teaching practical courses on the Internet, like editing and videography, especially professors who were not familiar with these methods", recalled a professor for journalism (Sobeih, 2020). The Iraqi Higher Education Ministry suggested utilizing Google Classroom or Edmodo as free resources on the Internet, but then allowed the universities to choose whatever suited them. This situation led to great confusion among universities, "especially after the ministry obliged all faculties to grant 50% of the grades to all students despite the average of their attendance, which led to weakening the outcome of the educational process during this semester," said a member of the exams committee (Abd Elgabar, 2020).

In Yemen, the transition to distance teaching was disrupted by unforeseeable political decisions and technological problems, although many attempts were made to provide suitable infrastructure. Sana'a University began the transition to distance learning by mid-March 2020, utilizing the Zoom application on the Sana'a University platform. Sana'a University has had previous agreements with Google since 2019 to provide the university with 80,000 free accounts for professors, students and employees and many other free services (Sana'a University Website, n.d.). The university tried to benefit from this agreement when the decision to transition online was made. The first measure taken was creating official e-mail accounts for the staff, administrators, researchers, and students through the IT department, which amounted to 45,000 accounts. The second measure was to introduce training sessions organized by IT employees for 40 staff members and upload electronic brochures to raise

awareness among students. Faculty staff were advised to upload their materials and lectures online and send their official e-mail addresses to the students (Sana'a University Website, n.d.).

The University of Science and Technology had its own open education program that was used as an LMS, and they also employed Google Classroom and Zoom as interactive tools. Unfortunately, the program was suspended for political reasons after Ansar Allah, a militant group, took control of the region. The decision to transition was only made after 80% of the semester was over; the situation encouraged many faculty members to end their classes rather than experiment with online platforms.

The University of Modern Science is a private university in Yemen that had already utilized an LMS until the Higher Education Ministry suspended all online programs in private universities. The university took advantage of the pandemic and retrieved its program, creating official e-mail accounts for professors and students to communicate through their LMS. Prerecorded video lectures were designed and uploaded, but no online lectures were given. Professors and students communicated through WhatsApp and Facebook. Yet, a professor explained the confusion when "the faculty insisted that students should attend classes with practical journalism training along with taking all necessary precautions" (Howdy, 2020).

One can conclude that Arab countries in conflict zones, even though there were, even though there were some technical capabilities, did not benefit from them because of problems concerning infrastructure and the lack of training of staff and students, and in particular in Yemen from political confusion. The Gulf countries' transition experiences were smoother because universities in both Oman and Qatar had operated LMS technology before the pandemic. In Oman, the two departments adopted the same track, although they had different learning platforms. At Al-Bayan College, the administration organized training workshops to evaluate the best options for transitioning to online teaching and assessment. The faculty uploaded videos explaining how to attend online lectures. The transition was easy because the students were used to the Canvas platform for uploading their assignments and projects and accessing class material. Having partially used Canvas before, it was not difficult to fully operate in this way during the pandemic. The staff, however, had to modify their teaching methods and used PowerPoint presentations, smart boards, and displayed videos to explain parts of topics, such as camera usage or online editing. In Nizwa, the faculty tried to find supporting tools for the Blackboard platform. Staff began using Google Classroom, Google Meet, and Google Hangouts to cover some features not included in Blackboard. They also utilized new teaching methods, such as combining live and recorded lectures, uploading videos, and enriching their material with online activities and exercises.

In Qatar, the interviewees reported some confusion at the beginning, as the professors were not used to that type of teaching. However, as time passed, the professors began to gain more control and become more familiar with online tools. The reasons behind this enhancement were continuous

training sessions conducted by the university and peer training among professors. The university was also keen to update its staff with new methods to enhance their online teaching. The easy transition for students and professors was also due to the university's use of the Blackboard platform. The last reason, from the faculty's point of view, was that workshops were conducted by IT experts to resolve any problems that might occur so that they could move along with the educational process. Longer experiences with some e-learning tools and continuous support and training thus allowed for the smoothest transition to online teaching in the two Gulf countries.

2) How was distance teaching perceived by the students in the six countries?

After learning about the different experiences of transitioning to distance teaching from a faculty point of view, we surveyed 1,063 students from six Arab countries to explore their evaluations of distance teaching strategies and platforms. A cross-country comparison is provided below regarding the digital tools they relied upon in their learning activities. We were also interested in their satisfaction with, and assessment of, the different distance teaching strategies. We further asked whether they would like to continue with distance learning post-COVID-19 and inquired about future suggestions to improve the distance learning experience in their countries.

The first question on the use of different digital tools revealed a diversity of preferences in the different countries that reflect the above-described strategies taken by the various universities (Table 2).

Table 2: Digital tools used in distance teaching according to students (multiple answers possible).

Country	Video conference systems (such as Zoom/ WebEx/ MS Teams)		Google Classroom		Facebook		Google Drive		LMS (such as Blackboard)		Instant messaging service (such as WhatsApp and Telegram)		YouTube	
	N	%	N	%	N	%	N	%	N	%	N.	%	N	%
Egypt	183	69.1%	149	56.2%	94	35.5%	172	64.9%	19	7.2%	65	24.5%	63	23.8%
Tunisia	49	72.0%	28	41.2%	43	63.2%	11	16.2%	7	10.3%	1	1.4%	5	7.3%
Iraq	15	4.8%	292	97.0%	45	14.9%	32	10.6%	9	2.9%	116	38.5%	25	8.3%
Yemen	31	16.7%	107	58.1%	36	19.5%	26	14.1%	30	16.3%	133	72.2%	46	25.0%
Oman	28	17.4%	12	7.5%	3	1.9%	20	12.4%	133	82.6%	97	60.2%	23	14.3%
Qatar	70	83.3%	3	3.6%	0	0	2	2.4%	83	99.0%	7	8.3%	7	8.3%

The usage of video conference systems, with their ability to allow for direct and synchronous interaction, was particularly strong in Qatar, but also in Egypt and Tunisia. In those countries with rather low bandwidth capacities (i.e., Iraq and Yemen), Google Classroom was used as an asynchronous alternative (as mentioned by 97% of the interviewed students in Iraq and by 58% in Yemen). As the two Gulf countries had already established LMS such as Blackboard, these LMS were used by the students intensely (more than 82% of the interviewed students in Oman and 99% in Qatar mentioned this). An interesting observation is that in both Yemen and Oman, instant messaging services such as WhatsApp and Telegram (as mentioned by more than 72% of the interviewed students in Yemen and more than 60% in

Oman) were used as the main communication tools among students and teachers, according to the students.

Very low levels of social media use, such as Facebook, in some countries (i.e., Oman and Qatar) or instant messaging services in others (i.e., Qatar and Tunisia) indicate that certain communication routines had already been established during the early days of the pandemic. At the same time, it is notable that social media networks, such as Facebook and YouTube, which were not mainly designed for educational purposes, were utilized in many countries by students and instructors as a quick, easy-to-use, and familiar tool. This was observed especially in countries with large numbers of students, where it seemed risky to many to use unfamiliar platforms in uncertain times, and where instructors had never experienced online teaching before, such as Egypt.

We also asked the students to choose those distance teaching-related features where the digital tools used proved most effective (Table 3).

Table 3: Most effective teaching-related features according to students (multiple answers possible).

Country	Providing recorded videos		Managing online meetings		Sharing resources		Providing audio recordings		Managing virtual classes		Providing e-libraries and databases	
	N	%	N	%	N	%	N	%	N	%	N	%
Egypt	117	44.2%	114	43.0%	60	22.6%	37	14.0%	49	18.5%	14	5.3%
Tunisia	18	26.4%	46	67.6%	7	10.7%	10	14.7%	21	30.8%	2	2.9%
Iraq	75	24.9%	37	12.3%	70	23.3%	79	26.2%	167	55.5%	9	3.0%
Yemen	81	44.0%	55	29.8%	43	23.3%	62	33.6%	64	34.7%	26	14.0%
Oman	103	64.0%	70	43.5%	20	12.4%	17	10.6%	24	14.9%	11	6.8%
Qatar	73	86.9%	50	59.5%	2	2.4%	6	7.1%	2	2.4%	4	4.8%

According to the students, the digital tools used by the teachers were most helpful by providing recorded videos. The reasons behind this are user control over retrievable content as well as the effectiveness of video tutorials as suitable alternatives to practical training in studios and labs. Also, students acknowledged, to some extent, the effectiveness of managing meetings. In most cases (except in Iraq and Yemen), students found the digital tools used by the teachers to be more effective in managing meetings than actually conducting virtual classes. Here, more inquiry needs to be made regarding how effective the digital tools are being used not to simply meet the students' needs, but also to engage them and provide interactive features.

The effectiveness of providing e-libraries and databases was hardly indicated in the six countries, which may reveal the poor availability of online sources in Arabic and in Arab countries and the students' need to be trained on using international databases and employing them in learning activities. We also asked the students to determine the suitability of the e-resources used to substitute for typical teaching strategies they knew from the classroom. A five-point Likert scale was designed, with responses ranging from strongly suitable to strongly unsuitable. The relative weights were calculated to identify the attributed degree of suitability in general and for each teaching strategy separately (Table 4).

Table 4: Suitability of digital tools for certain teaching strategies according to students (multiple answers possible).

Country	Information & knowledge	Practical training	Projects	Self-learning	Team work	Participation and discussion	Overall suitability
	%	%	%	%	%	%	%
Egypt	70.0%	48.4%	57.2%	67.6%	61.0%	61.2%	60.6%
Tunisia	65.0%	47.6%	55.8%	70.6%	52.4%	61.8%	59.7%
Iraq	68.0%	56.0%	64.0%	68.0%	70.0%	68.0%	66.8%
Yemen	62.2%	50.0%	54.2%	69.8%	57.4%	62.0%	59.7%
Oman	72.0%	61.4%	66.2%	74.6%	62.8%	69.8%	68.6%
Qatar	78.0%	64.0%	64.0%	80.4%	62.0%	70.0%	71.4%

In general, a substantial percentage (between 59.7% to 71.4%) of students acknowledged that e-resources seem to be suitable for transitioning typical teaching strategies to distance teaching. In particular, receiving theoretical knowledge and information from the teachers and self-learning were found to be done well online. Teamwork and project work, however, were rated less positively, indicating that this seems to be more difficult to do online. The most problematic item, according to the students, was practical training. This was found to be least suitable in all six countries, indicating the difficulty of implementing distance teaching strategies to compensate for studio training, using cameras, editing, creating animation, and developing graphs, because such skills require practice on the ground. Nevertheless, on average, for half of the students it seemed to be suitable to conduct practical training online.

Finally, we asked students whether they would like to continue distance online learning in the future after returning to normal life (Table 5).

Table 5: Students' acceptance of the continuity of distance teaching post-pandemic.

Country	Yes		Maybe		No	
	N	%	N	%	N	%
Egypt	51	19.2%	74	27.9%	140	52.8%
Tunisia	20	29.4%	23	33.8%	25	36.8%
Iraq	71	23.6%	93	30.9%	137	45.5%
Yemen	18	9.8%	51	27.7%	115	62.5%
Oman	53	32.9%	35	21.7%	73	45.3%
Qatar	29	34.5%	15	17.6%	40	47.6%
Total	242	22.8%	291	27.4%	530	49.9%

The results indicated that 49.9% of all students would have preferred not to continue distance learning in the future after the pandemic was over, compared to 22.8% who answered with a clear yes, and 27.4% who were undecided. Given their experiences with a poor and unreliable technological infrastructure, Yemeni students were the least interested in continuing distance teaching (62.5%), before Egyptian students (52.8%). Omani students (45.3% said no, while 32.9% said yes) and Qatari students (47.6%, while 34.5% said yes) were torn between continuing and abolishing distance teaching. In both countries, the best technical infrastructure

among the six was found, and the relevant resources were widely available. Iraqi students (45.5% said no) and Tunisian students (36.8% said no) were the most undecided. One can argue that insufficient training of the professors and technical difficulties were not the only reasons for students disliking distance teaching, since they also missed the faculty and student life, as well as face-to-face communication with their fellow students and professors.

When asked about suggestions for improvement, the students focused, in particular, on the administrative and technical aspects. They demanded that the government secure high-speed internet and improve the infrastructure to enable students not living in big cities to have access to the Internet. In addition, students asked for improvements to the departments' online sites, and in Egypt and Iraq in particular, students demanded the establishment of an LMS. Finally, they also suggested that more training be provided to the teaching staff on new applications so that they could adopt more interactive teaching strategies, such as chat rooms and quizzes, to enrich online learning.

3) How was the transition evaluated by the teaching staff, and which suggestions can be made for the future?

In the focus groups and the individual interviews with staff and teaching faculty, many of the concerns of the students were mirrored, especially the necessity of getting cheaper and more stable internet connections and a better infrastructure. These concerns were mainly raised in Yemen, Iraq, and Egypt. Our respondents affirmed that measures should be taken to renew and strengthen the infrastructure. Concrete suggestions were to prepare a central site through which universities could access the Internet free of charge and through which free or discounted internet accounts for students could be provided. In addition, it was suggested that the necessary devices such as laptops or computers for low-income students or those living in remote areas should be provided.

At the same time, ministries and decision-makers were also addressed regarding the legal problems of online teaching. Respondents demanded that colleges' bylaws be updated to provide a legal framework for distance education and its procedures. During the pandemic, the existing regulations of many media schools conflicted with distance education. For example, in Egypt, up until the pandemic, students were required to attend 75% of classes and were obliged to complete final exams face-to-face. Also, issues of plagiarism or problems with unstable connections during online exams need to be taken care of by providing a legal framework, according to our interviewees. The ad hoc decisions and exceptions made during the pandemic were considered insufficient.

In general, the demand was strong to integrate distance education into future development plans for higher education. It turned out that the crisis had accelerated a transformation process that many had been waiting for. Participants highlighted that going (more) online was a goal that many universities in the Arab world were trying to approach but had hesitated with and were now forced to

act upon. A proposal that seemed most applicable among faculty staff in the six Arab countries was adopting a hybrid system by merging face-to-face education (50–60%) and e-learning (40–50%). This would also help to solve long-lasting problems, such as dealing with the ever-increasing student numbers, particularly in Egypt and Iraq. It could also help the departments gain more international recognition by organizing joint educational programs in cooperation with other universities or international bodies that can be implemented remotely. This would require a comprehensive framework to redesign courses, adopt new learning strategies and evaluation tools, and strengthen the administrative and technical units in the respective universities. One small step that Cairo University has taken is the inclusion of Blackboard into regular teaching and its recognition as an examination tool.

The participants in the focus groups highlighted that these changes would have to be accompanied by continuous staff training and peer-to-peer learning. When reflecting on their experiences during the pandemic, the staff interviewed in the focus groups concluded that the experience of applying online teaching had forced them to overcome obstacles and find immediate and practical solutions. In the end, this gave them more confidence to adapt to online teaching. They also admitted that the experience proved that the younger staff is more ready to transition to online education. The pandemic had fostered cooperation among staff members, as some had previous experience utilizing digital tools in teaching or uploading videos or e-books and took over these tasks to train their colleagues who were unfamiliar with those tools. Peer-to-peer training thus became a new asset that, at some points, also helped overcome generational hierarchies.

At the same time, a new communication and work culture needs to be established when continuing with distance online teaching. Since communication between students and teachers was often transitioned to social media like Facebook or instant messaging services like WhatsApp, students used these tools in the same manner as with their peers. They felt free to contact their professors 24/7, ignoring their right to personal life. This disrespect of boundaries was also one argument that older professors used to make their stand in resisting the change of methods. At the same time, Facebook and WhatsApp might not be the right tools for educational purposes in which assignments need to be submitted and graded, and feedback needs to be given. A dream of many participants in the focus groups was, therefore, to develop (or adapt) a nationwide online system for managing the educational process, which would include space for sharing scientific material, as well as channels for communication between students and faculty members, calendars, broadcasted lectures, and other activities related to the educational process. This might also help to address the problem of faculty members' intellectual property rights being violated when scientific material is being shared for free on social media networks.

Finally, the need for cooperation between different media schools, including those in the same country but also internationally, was highlighted. Only through cooperation can a meaningful, comprehensive strategy be found that does justice to the needs of the students, administration,

and teachers with regard to distance teaching.

Conclusion

The necessity of teaching online from a distance took most Arab universities by surprise. In most cases, neither the infrastructure nor the legal framework was prepared. In our study, we observed, however, great flexibility and willingness to make distance teaching work, even without the proper frameworks. A lack of infrastructure and financial means proved to be the most relevant problem in conflict-ridden countries like Iraq and Yemen, but also in Egypt and Tunisia. Nevertheless, in these four countries, creative ideas were used by the staff to overcome this problem to some extent. From a socio-cultural point of view, it became clear that, in particular, the older generation of teachers needed a push to accept new forms of teaching as appropriate methods. In all cases, peer training and consultations helped to transfer skills, albeit this seemed to be an ad hoc measurement and has so far not been institutionalized by the universities. Students were generally satisfied with the digital tools used in their institution, even though in some countries, the skills of the teachers were premature, and the infrastructure was lacking. Most likely, this general satisfaction reflects the different expectations the students had initially given their knowledge about the conditions and infrastructure available in their countries.

While the students were undecided about whether they would like to continue with distance teaching, the staff seemed to be more inclined to push it to the next level. In our focus group discussions, the participants highlighted that they saw these changes as a move toward the modernization of their teaching. They also expected a further change in the internal communication culture and the inclusion of peer training among staff.

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Lessons learned from implementing a virtual flipped classroom during COVID-19: An autoethnography

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Abstract

The virtual flipped classroom has become a common practice in higher education during the COVID-19 pandemic. I used autoethnographic research to explore my personal teaching strategies and the challenges encountered while implementing a virtual flipped classroom during remote teaching in a higher education institution in Oman. A thematic analysis of the autoethnography account and interviews with two university teachers identified three themes: benefits of the virtual flipped classroom, challenges of the virtual flipped classroom and strategies for implementing the virtual flipped classroom. A framework for implementing this classroom style is proposed to guide higher education instructors when employing a virtual flipped classroom.

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1. Introduction

I have implemented various teaching methods throughout my journey in teaching English as a Foreign Language (EFL), including the flipped classroom. Adopting a flipped classroom requires a redesign of the classroom paradigm; teachers share instructional content with students before the class, and students are interactively engaged in different practice tasks during the class (Tang et al., 2020). In class, students have teacher guidance while working collaboratively on activities that support the development of higher thinking skills. After the class, students complete follow-up activities to consolidate learning (Andujar et al., 2020; Marshall & Kostka, 2020; Turan & Akdag-Cimen, 2020). A flipped learning methodology involves home video lectures, followed by meaningful classroom activities and formative and summative assessments to monitor students' learning (Milman, 2020). This instructional approach differs from traditional and linear approaches that were unable to meet the individual needs of students and support active, deep learning (O'Flaherty & Phillips, 2015). Bishop and Verleger (2013) described flipped learning as a methodology that strives to meet these characteristics: individual accessibility of content, adjustment of study time and pace, and teacher facilitation of students' active learning. The synchronous and asynchronous communication and collaboration possibilities in virtual environments enable teachers to implement a virtual flipped classroom (Ismail & Abdulla, 2019). Before attending the virtual class, students receive digital pre-class resources and activities. During the virtual class, they are involved in group-based and collaborative activities (Ismail & Abdulla, 2019). In ESL/EFL settings, previous research identified the effectiveness of this methodology in developing students' active learning, collaboration and teamwork (Ansori & Nafi, 2018), time management skills (Gough et al., 2017), grammar skills (Al-Naabi, 2020; Fauzan & Ngabut, 2018) and writing skills (Alghasab, 2020). Ngo and Yunus' (2021) conducted a systematic review of literature on flipped learning and ESL between 2016 and 2020. They reported positive perceptions from both teachers and students towards using flipped learning in ESL/EFL settings.

Implementing the virtual flipped classroom was challenging for me during emergency remote teaching (ERT). Students' participation in virtual pre-class and in-class activities was minimal. Additionally, adapting the curriculum for flipped learning was intimidating because of the other administrative tasks and responsibilities caused by the shift to online instruction.

Although ERT assisted higher education institutions in the continuation of education during the pandemic (Abou Youssef & Richter, 2022; Hodges et al., 2020), this instructional style has been associated with various challenges, such as teachers' readiness to shift to online teaching and their inability to create and deliver online instruction (Alterri et al., 2020; Crawford et al., 2020; Hodges et al., 2020; Sam, 2020). Although remote teaching during COVID-19 enabled teachers to try virtual flipped learning (Al-Nabbi et al., 2022; Andujar et al., 2020; Jia et al., 2020; Marshall & Kostka, 2020; Mursyidah et al., 2021; Singh & Arya, 2020; Tang et al., 2020; Veldthuis et al., 2020; Yen, 2020; Zawilinski et al., 2020), it was challenging to engage students in flipped learning activities

(Turan & Akdag-Cimen, 2020; Umar & Ko, 2022). Hence, Mursyidah et al. (2021) called for scholarly endeavours to investigate challenges and issues faced by institutions, faculty and students in implementing virtual flipped learning classrooms during the pandemic.

This paper aimed to investigate strategies and challenges I encountered when implementing virtual flipped learning in ERT during COVID-19. The paper compares my experiences with those of other teachers to inform the design of pedagogical approaches suitable for implementing the virtual flipped classroom in higher education. The following research question guided the study:

RQ: What were my experiences preparing and implementing a virtual flipped classroom during COVID-19?

The research question was branched into four sub-questions:
RQ1: How did I create a flexible learning environment, and what were the associated challenges?

RQ2: How did I establish the learning culture, and what were the associated challenges?

RQ3: How did I develop intentional content, and what were the associated challenges?

RQ4: How did I become a professional educator, and what were the associated challenges?

The study was conducted in a three-credit hour undergraduate EFL course (Technical Writing 2) in a higher education institution in Oman. Students take the course after completing a one-year foundation programme that aims to develop their language proficiency, study skills, mathematics and IT skills. Students must complete the foundation programme to progress to their degree courses. In addition to developing linguistic competence, the course teaches students how to write technical reports and describe multiple graphs. The course was face-to-face, but it was shifted online during the COVID-19 pandemic by digitalising content (videos, presentations) and assessments (online formative and summative assessments). Students were provided with presentations, handouts and activities in Moodle, and they attended two two-hour virtual sessions weekly on Microsoft Teams for twelve weeks. In addition, students interacted with their peers and teacher after class through Moodle discussion forums and e-mail. Students' learning was assessed through continuous assessment (online writing tasks, short online quizzes and virtual class participation) and summative assessment (centralised online mid-semester and final exams).

In addition to contributing to literature, the study will have significant importance for guiding EFL/ESL teachers in implementing virtual flipped learning. The study will help teachers overcome difficulties encountered in implementing a flipped learning methodology. Additionally, the study will guide teachers in creating content and flexible environments for flipped learning. Finally, the study will provide implications for higher education institutions to adopt a virtual flipped learning and teaching methodology.

2. Literature review

This section reviews previous research on strategies and issues when implementing flipped classrooms. This literature review sheds light on implementing the virtual flipped classroom during the pandemic, aiming to highlight the gaps in the literature and situate research within a larger body of knowledge.

2.1 Implementing flipped learning methodology

Previous research has identified a set of strategies and guidelines for the successful implementation of flipped learning. The Flipped Learning Network suggested the Four Pillars of F-L-I-P: flexible environment, learning culture, intentional content, and professional educator. Creating a flexible environment can assist teachers in implementing flipped learning (Flipped Learning Network, 2014). This pillar entails providing a non-restrictive and safe environment for students to foster independent learning skills and group work dynamics (Flipped Learning Network, 2014). A safe and relaxed environment eventually encourages learners' active engagement in the class (Faja, 2013; Umar & Ko, 2022). Therefore, a motivational and supportive environment can develop agentic engagement in the course and the class. This type of environment provides students with opportunities to constructively contribute to the flow of instruction through various strategies, such as providing content based on their background knowledge, asking questions, offering suggestions, recommending a goal to pursue, communicating their level of interest, soliciting learning resources, adding personal relevance to learning experiences, and generating options for further learning (Reeve, 2013). To create a flexible environment, the Flipped Learning Network suggested establishing spaces and time frames for interaction, observing and monitoring students to make teaching adjustments, and providing students with different ways to learn and master content (Flipped Learning Network, 2014).

Establishing spaces and time frames can be achieved through a well-planned and developed course syllabus, as supported by Hutchinson's (2007) argument that a clear course outline is essential to ensure collaboration in virtual environments. MacDonald (2003) categorised collaborative learning in online courses into process-oriented collaboration and product-oriented collaboration. Process-oriented collaboration includes structured discussion on a topic that may not necessarily lead to a product. In contrast, product-oriented collaboration leads to a product, such as a project, essay, or presentation (MacDonald, 2003). A product-oriented collaboration can be assessed using a common grade for the group product and an individual grade for each student's contribution (Wang, 2007).

In addition to identifying learners' strengths and weaknesses to guide their learning, monitoring students' learning helps teachers adjust their instruction (van Gog et al., 2010). Compared to face-to-face environments, virtual environments provide different methods of formative assessment and immediate and ongoing feedback, such as quizzes with immediate feedback, weekly assignments, and collaborative wikis (Gikandi et al., 2011). Gaytan and McEwen (2007) reported that an effective online assessment should include "a wide variety of clearly explained assignments on a regular basis," very supportive feedback, and must be meaningful and timely (p. 129).

One way to ensure a flexible learning environment is to provide students with different learning strategies to master the pre-class and in-class content. In addition to videos, teachers can assign readings, audio files, infographics and URLs for various resources (Kvashnina & Martynko, 2016; Mehring, 2017; Ozdamli & Asiksoy, 2016). For in-class activities, teachers can use a variety of strategies that foster collaborative and constructive learning, such as discussions, debates, problem-based learning and project-based learning (O'Flaherty & Phillips, 2015).

The Flipped Learning Network essentialised the creation of a learning culture. The instructional shift to student-centred teaching shapes a learning culture centred around students' development and in-depth exploration of concepts (Flipped Learning Network, 2014; Umar & Ko, 2022). The teacher provides students with learning opportunities and scaffolds instruction by facilitating learning and providing feedback (Flipped Learning Network, 2014).

To implement flipped learning, teachers develop intentional content that helps students develop conceptual understanding and procedural knowledge (Flipped Learning Network, 2014). This process involves highlighting the concepts required for self-access before class and searching for or creating relevant content based on students' needs (Ozdamli & Asiksoy, 2016). Creating intentional content helps teachers create a flexible environment and establish a positive learning culture.

Finally, this methodology requires professional educators who can handle diverse teaching strategies, content selection and creation, student assessments, and student issues (Umar & Ko, 2022). Hence, teachers adopting flipped learning should actively engage with other teachers through collaboration, reflection, and communities of practice (Flipped Learning Network, 2014; Hilliard, 2012).

2.2 The virtual flipped classroom in Emergency Remote Teaching

The abrupt and unplanned shift to ERT caused overwhelming consequences for faculty, students and IT departments in higher education (Hodges et al., 2020; van Veldhuizen et al., 2020). Nevertheless, a plethora of research on virtual flipped classrooms during COVID-19 indicated the importance of this method in ERT (Andujar et al., 2020; Jia et al., 2020; Marshall & Kostka, 2020; Mursyidah et al., 2021; Singh & Arya, 2020; Tang et al., 2020; Veldthuis et al., 2020; Yen, 2020; Zawilinski et al., 2020). Veldthuis et al. (2020) regarded the virtual flipped classroom methodology as a potential option for meeting the demands of ERT. Although these studies outlined that virtual flipped classrooms promoted active learning, self-efficacy, independent learning and motivation, their implementation was a challenging task. Turan and Akdag-Cimen's (2020) systematic literature review

summarised the barriers of flipped classrooms, including the workload for students, technology or internet-related problems, and the extra workload for teachers in creating instructional content.

When implementing a virtual flipped classroom during COVID-19, Singh and Arya (2020) provided students with slides, questionnaires, and links to web resources 24 hours before the virtual class. In the virtual class, they tried out four modes: mode 1 involved a conventional audio-delivery with PowerPoint slides on live sessions; mode 2 used video and audio with animated graphics in live sessions; mode 3 involved recorded videos with audio and video support; and mode 4 used an audio-visual one-to-one discussion and problem solving with conceptual understating during live sessions. Based on students' feedback, Singh and Arya (2020) suggested using a mixture of the four modes to meet students' needs and solve poor internet connectivity and accessibility. Likewise, Fogg and Maki (2021) considered major changes when redesigning their course to suit the virtual flipped classroom. Instead of traditional lecturers, they provided 10-minute pre-recorded lectures with handouts and questions prior to the virtual class. Students' participation was not evaluated based on attendance but on the completion of group-based activities conducted in breakout rooms during live sessions (Fogg & Maki, 2021). Although Alghasab (2020) reported sociocultural and contextual factors influencing students' interaction, she found that virtual flipped learning improved students' writing skills, especially planning and writing thesis statements.

These studies highlighted the usefulness, strategies and issues involved in implementing a virtual flipped classroom. Previous research used an outsider lens when examining this phenomenon, so a study taking an insider approach – such as this endeavour – could add valuable information to the existing body of knowledge.

2.3 Theoretical framework

The Pillars of F-L-I-P suggested by the Flipped Learning Network include the four pillars – *flexible environment, learning culture, intentional content,* and *professional educator* – and a set of indicators (Flipped Learning Network, 2014). *Flexible environment* indicates a change in teaching mode to allow independent learning and group work (Flipped Learning Network, 2014). This pillar encompasses flexibility in time and place (Flipped Learning Network, 2014; Ozdamli & Asiksoy, 2016). Creating a *learning culture* requires a shift of instruction to a student-centred approach, where students explore new ideas and practice different skills with the teacher facilitating learning and providing feedback (Al-Naabi, 2020; Flipped Learning Network, 2014). Teachers use *intentional* content to develop students' understanding and procedural fluency (Flipped Learning Network, 2014; Ozdamli & Asiksoy, 2016). Finally, teachers – as key players in implementing flipped learning – must be *professional educators* who can reflect on their practices, connect with other educators, accept criticism and tolerate differences in class by being the main player in implementing flipped learning (Flipped Learning Network, 2014; Fryling, 2020; Mursyidah et al., 2021; Ozdamli & Asiksoy, 2016).

The Flipped Learning Network identified a set of criteria for each pillar (see Figure 1). The indicators associated with 'flexible environment' centre around setting time/space for learning, class observation to inform teaching adjustments, and ways of teaching. 'Learning culture' indicators focus on providing and scaffolding engaging activities. Indicators regarding 'intentional content' guide teachers to prioritise ideas for students, create relevant materials and utilise different methods for accessibility and relevance of content. Regarding the 'professional educator', the indicators indicate teachers' availability to provide timely feedback, ability to design formative assessments to inform future instruction, and collaboration with other educators for practice transformation (Flipped Learning Network, 2014).

Flexible Environment	F. 1	☐ I establish spaces and time frames that permit students to interact and reflect on their learning as needed.
	F. 2	☐ I continually observe and monitor students to make adjustments as appropriate.
	F. 3	☐ I provide students with different ways to learn content and demonstrate mastery.
Learning Culture	L. 1	☐ I give students opportunities to engage in meaningful activities without the teacher being central.
	L. 2	☐ I scaffold these activities and make them accessible to all students through differentiation and feedback.
Intentional Content	I. 1	☐ I prioritise concepts used in direct instruction for learners to access on their own.
	I. 2	☐ I create and/or curate relevant content (typically videos) for my students.
	I. 3	☐ I differentiate to make content accessible and relevant to all students.
Professional Educator	P. 1	☐ I make myself available to all students for individual, small group, and class feedback in real time as needed.
	P. 2	☐ I conduct ongoing formative assessments during class time through observation and by recording data to inform future instruction.
	P. 3	☐ I collaborate and reflect with other educators and take responsibility for transforming their practice.

Figure 1: The Flipped Learning Pillars and indicators.

3. Methods

3.1 Research methodology

This investigation was conducted based on a relativist ontological basis holding that people interpret the world differently based on their social beliefs, assumptions and everyday experiences. Therefore, autoethnography was deemed a suitable research methodology because it uses personal experiences to critically narrate and critique practices (Adams et al., 2014; Ellis & Bochner, 2006). Autoethnography is situated in an interpretive paradigm, helping reach interpretations that came from the inside, as a researcher, in a specific context and experience, employing reflexivity to reflect on one's own and others' experiences (Adams et al., 2014). This research methodology helped connect my own experiences and understandings to a wider discussion (Chang, 2008). The paper was structured to describe the educational phenomenon and, through interviews, explore its meaning in the educational context and everyday practices. Interviews, when applied to autoethnography, help contextualise, confirm and complement the generated self-data (Chang, 2008). The use of the researcher's experiences of the topic in the data collection and analysis allowed for thoughtful and iterative

reflections.

3.2 Data collection

I depended on my recollections and memories of incidents and events, "personal memory data," (Chang, 2008) as a data source. Using the autoethnographic timeline technique helped me gather data at different milestones in my experience (Chang, 2008).

Another dataset was produced by interviewing two teachers from similar cultural backgrounds and settings who implemented the virtual flipped classroom during the pandemic. The similarity in backgrounds and situations allowed possible comparisons between the experiences to facilitate a wider discussion. Both teachers have master's degrees in language education. Teacher A has 16 years of teaching experience, while Teacher B has 11 years of experience. Both teachers taught the course online during the pandemic.

An interview protocol was developed and validated for content validity by the module convenor and two teachers. This process has ensured the collection of relevant data required to answer the research questions and follow the chosen theoretical framework. The interviewees signed a formal consent form for participation in the study. The interviews were conducted virtually on Microsoft Teams for ease of archiving and transcribing. The data was stored in the researcher's virtual drive provided by the institution, and the data was discarded upon the completion of writing the report.

3.3 Data analysis

The study followed a deductive thematic analysis approach grounded in the chosen theoretical framework, the Four Pillars of F-L-I-P (see Figure 1). The thematic analysis followed Braun and Clarke's (2006) six steps: data familiarisation, coding data, searching for themes, reviewing themes, defining and naming themes and writing up. Data familiarisation was achieved through successive readings of the data. Subsequently, the data were coded based on the theoretical framework. It guided the iterative readings and coding of the data. Next, a potential set of themes were drawn from the coding outcomes. The identified themes were reviewed and named. ATLAS.ti was used to facilitate the analysis process.

I employed the "critical friend" method to ensure credibility and trustworthiness. A critical friend is a trusted friend who critiques someone's work as a friend by providing reflection and analysis from different perspectives (Kember et al., 1997; Swaffield, 2004). The critical friend helped reflect and improve the quality of the study through "listening, prompting, and recording our insights throughout the process" (Milles & Gay, 2016, p. 575). Since the autoethnography method is subjective in nature, employing the critical friend method ensured less subjectivity in data analysis, data interpretation and report writing. A Ph.D. academic and researcher in education served as a critical friend, providing comments on data analysis and interpretation. A meeting with the critical friend was held to review the data analysis.

4. Findings

The thematic analysis identified three main themes: *challenges of implementing the virtual flipped classroom, benefits of implementing the virtual flipped classroom and strategies for implementing the virtual flipped classroom*. This section presents the results of the autoethnographic data and compares it with the interview data, noting differences. The results are presented based on the themes. Participants are identified as Teacher A and Teacher B.

4.1 Challenges of implementing the virtual classroom

The results indicated some challenges associated with implementing the virtual flipped classroom. It was time-consuming to prepare the activities, as the course materials were designed for offline delivery. Additionally, I spent time searching for and preparing the materials because I had to adapt the course materials, design some pre-class activities in Moodle, or edit some videos from YouTube. In addition to the administrative duties, this increased my workload.

Learning new video editing and production skills challenged our content-creating abilities, but we overcame it by forming a gradual self-experience. Teacher A watched YouTube videos on converting PowerPoint slides into videos and editing YouTube videos. Teacher B invited a video designer from the IT department to help produce course videos.

The large class size (35 students) posed another challenge for me, negatively impacting students' participation in virtual flipped classroom activities. Students did not complete all the assigned tasks at home and in class, and they did not participate in whole-class discussions. Their participation in whole-class activities was minimal compared to individual virtual activities. Additionally, the short time assigned for the pre-class activities, less than a day before the virtual class, meant I was unable to comment on students' written work before the class and could not provide sufficient feedback for pre-class and post-class activities.

Our colleagues' time constraints, busy schedules, and insufficient knowledge of and skills in the virtual flipped classroom were challenges for us in becoming professional educators. However, their informal help and guidance were beneficial.

We all experienced lack of institutional support and poor training opportunities in implementing the virtual flipped classroom. Although my institution provided some training sessions, most were theoretical or about using different platforms my institution did not have access to. Teacher A reported that the course leader encouraged her to implement virtual flipped learning, but he did not provide any guidelines or materials. Teacher B found some sessions useful because they guided him on video design for the class, but there were no follow-up sessions to clarify his doubts.

4.2 Benefits of the virtual classroom

Despite the challenges, the analysis revealed various benefits of adopting the virtual flipped classroom in ERT during COVID-19. The virtual flipped classroom saved class time because students had studied and explored the content before the class, allowing me to focus on developing students' language skills. Despite the difficulty in providing feedback on pre-class activities, involving students in various skills-oriented activities helped to provide constructive feedback in the class on language use. For example, I identified and explained students' issues in writing through Microsoft Teams Whiteboard or by annotating their work in Microsoft Word. Due to sufficient time for language practice in the class, I could better identify students' strengths and weaknesses and eventually focused more on weak students. Furthermore, the materials provided to students served as a rich "resource bank" that they referred to frequently throughout the semester.

Additionally, the participants expressed two further benefits. Teacher A stated that the virtual classroom helped continue students' education during COVID-19, saying, "without flipped learning, it would have been a challenge to keep on teaching students during the lockdown period." Teacher B added that following the flipped approach allowed him to "be exposed to more free online resources that can supplement the existing teaching materials".

4.3 Strategies for implementing the virtual flipped classroom

The dataset revealed different strategies for implementing the virtual flipped classroom. This theme has been divided into four subthemes based on the theoretical framework.

4.3.1 Strategies for creating a flexible environment in the virtual classroom

A flexible environment was created by allowing students time to view the pre-class content and providing various resources for the same content, such as pre-recorded videos, reading passages, and grammar infographics. Moodle enabled the creation of different virtual synchronous and asynchronous activities for students, such as wikis and discussion forums, in which they could reflect on their learning and interact with peers. Additionally, I used observation checklists and notes to record students' performances in class in terms of frequency, the number of times they participated, accuracy, and the correctness of their answers. This technique helped ensure a flexible environment, allowing adjustments to instruction and planning for forthcoming activities and lessons. Finally, I used breakout rooms in the virtual class to allow students to interact with their peers and work collaboratively.

Teacher A's strategies included sharing pre-class teaching materials on WhatsApp because it was "common and accessible to students on their smartphone". She shared links to pre-class Moodle activities on WhatsApp. Teacher B shared pre-class materials through Moodle and e-mail to ensure flexible access to the materials before the virtual class. The two teachers gave some time for students to do the activities, but both reported that the time was insufficient for some classes.

4.3.2 Strategies for establishing a learning culture in the virtual flipped classroom

I created a collaborative learning culture by allowing students to participate in class and collaborate to enhance their learning. I gave a chance for all students to participate and unmute their microphones whenever they wanted. I monitored their participation through observation notes, noting how many times each student participated. During class activities, I grouped students using breakout rooms and monitored their participation by joining each group to guide and facilitate learning. To encourage and reward their participation, I assigned participation marks as part of the course's continuous assessment marks. Moreover, I used a peer-correction strategy by asking students to do peer correction virtually. For virtual peer correction, students shared their screens and used annotations in Microsoft Word. Additionally, I made activities accessible to all students by providing constructive feedback. The dataset identified four types of feedback: instant, delayed, individual and group feedback. I gave students instant feedback during their performance to maintain the flow of the task being administered. Conversely, I provided delayed feedback when the error did not impede the completion of the task. Individual feedback was given to students on specific errors, and group feedback was given to the whole class on common issues. I gave feedback during the virtual class or through e-mail and responses to students' discussions. I scheduled individual virtual meetings with some students to provide in-depth feedback on their work, and some of these individual meetings were requested by students. Individual feedback was more convenient, as poor internet connectivity hindered some students from attempting pre-class activities or attending the sessions.

The other teachers created a similar learning culture following related strategies. However, Teacher A used voice notes and Padlet – a digital web-based platform for sharing materials and collaboration – to provide students with individual feedback. Teacher B shared his screen during the class to provide feedback on students' writing in Microsoft Word.

4.3.3 Strategies for providing intentional content in the virtual flipped classroom

The analysis revealed that we either searched for online content or prepared content for the virtual class. I used YouTube videos for some lessons, but it was often challenging to find suitable videos. Consequently, I adapted some videos to suit my students' level and meet the lessons' objectives. To check the difficulty level of a video, Teacher A selected a student and asked him/her to view and comment on the materials. Alternatively, Teacher B consulted the course leader about the difficulty level and content suitability.

I created my own videos for unavailable content. My colleagues and I used PowerPoint narrations to create educational videos. I also used H5P – a Moodle plugin for creating interactive content – to produce interactive videos in which students were asked comprehension questions and provided instant feedback. I did not rely on videos for pre-class resources. Instead, I sometimes provided students with readings (sample essays for writing analysis) and infographics (grammar explanations). I also supplied students with additional resources through links to websites.

4.3.4 Strategies for becoming a professional educator in the virtual flipped classroom

The participants and I were available for students during virtual meetings, through e-mail exchanges, and by individual meetings in the office. I joined the virtual meeting five to ten minutes prior to the class start time, and I left five minutes after the end of the session to allow students a chance to voice their concerns. We provided students constructive individual and group feedback before, during, and after the class.

My ongoing monitoring and assessment of students' learning through observation checklists and notes aided me in continuously adapting my instruction. Similarly, Teacher A noted her students' participation in the pre-class, in-class, and post-class activities to help her identify students' strengths and weaknesses. Teacher B issued weekly quizzes to monitor students' progression. Based on students' performance on these quizzes, he adapted the course materials and provided extra support to weak students.

Our peer collaboration was minimal due to our colleagues' insufficient knowledge and skills regarding virtual flipped classrooms, time constraints, and busy schedules. Teacher B and I only asked a few colleagues to review some of the videos. Teacher A had several informal conversations with colleagues about teaching approaches.

5. Discussion

5.1 Virtual flipped classroom: benefits and challenges

The study demonstrated that using flipped learning during COVID-19 helped me provide greater attention to students and use class time for language practice and providing feedback. This finding agrees with previous research, which stated that virtual flipped learning supported skills enhancement and engagement (Alghasab, 2020; Al-Naabi, 2020; Marshall & Kostka, 2020; Murillo-Zamorano et al., 2019; Yen, 2020). This additional support was achieved because the pre-class activities prepared students for the class. This finding can also be attributed to social learning principles that occurred in the virtual class. Reed et al. (2010) argued that social interaction in class leads to changes in students' behaviours and practices. The virtual flipped classroom offered students flexible accessibility to various resources.

The study confirmed the challenges faced, including workload, lack of time to create content, difficulty in motivating students throughout the semester, and students' poor internet connectivity. Similar issues were addressed in the reviewed literature (Turan & Akdag-Cimen, 2020). However, the dataset highlighted some initiatives for addressing these challenges, such as searching online for resources, redesigning and adapting existing materials, rewarding students' performance, and following a student-centred instructional approach.

5.2 Guidelines for implementing the virtual classroom

Based on the results, this study proposes a framework to guide the effective implementation of the virtual classroom (see Figure 2). The framework includes two main phases: teacher strategies and institutional support. Teacher strategies include four categories based on the Four Pillars of F-L-I-P: creating a flexible learning environment, establishing a collaborative learning culture, providing intentional content, and becoming a professional educator. In addition to teaching strategies, four institutional support considerations should be addressed simultaneously to ensure a successful and effective implementation of the virtual flipped classroom. These considerations include enhancing and establishing institutional policies and guidelines, providing professional development for teachers, reforming curriculum for online delivery, and providing technical support.
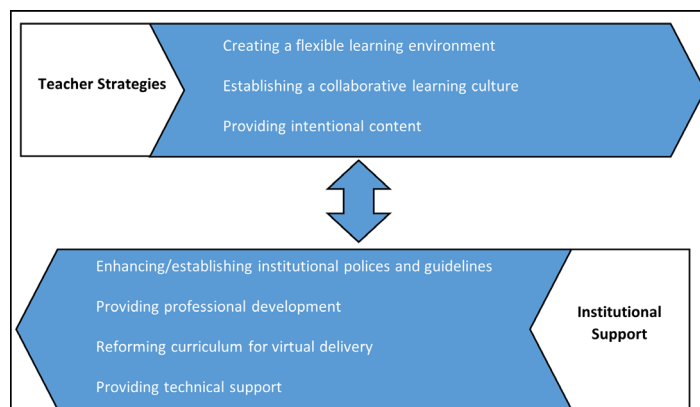
Figure 2: Framework for implementing the virtual flipped classroom.

Teachers should create a flexible environment to engage students in the virtual flipped classroom (Umar & Ko, 2022). Teachers can provide opportunities for students to interact in class using breakout rooms, enhancing their agentic engagement (Reeve, 2013). Moreover, teachers should involve both process-oriented and product-oriented discussions in class (MacDonald, 2003). Teachers should also observe students' learning to inform future instruction and create a collaborative learning culture (Flipped Learning Network, 2014). A collaborative learning culture can be fostered by a student-centred approach, in which students are the centre of the learning process and the teacher is a facilitator, and by providing learning opportunities to scaffold learning (Flipped Learning Network, 2014; Phillips,

2017; Umar & Ko, 2022; Yen, 2020). Additionally, Faja (2013) claimed that collaborative learning is enhanced in virtual settings when students are provided with a safe environment for collaboration. Therefore, using breakout rooms for group work is essential in the virtual classroom. Furthermore, teachers' presence is crucial in virtual environments, helping to create a suitable learning environment and establish a collaborative learning culture. According to Pelz (2010), this teaching presence can be achieved through two methods: facilitating the discussion and providing direct instruction. To facilitate the discussion, the teacher should identify areas of agreement and disagreement, seek to reach an understanding, encourage, acknowledge and reinforce students' participation, set the learning environment, and assess and evaluate the learning process (Pelz, 2010). Regarding direct instruction, Pelz (2010) proposed different strategies, including delivering content and questions, facilitating the discussion, summarizing the discussion, diagnosing misperceptions, providing knowledge from different sources, and responding to technical issues.

It is essential for educators to prepare intentional content, prioritise main concepts in pre-class resources and adapt the activities, linking them to the three stages of the virtual flipped classroom. Without developing intentional content, teachers may face difficulties creating a flexible environment and a collaborative learning culture (Ozdamli & Asiksoy, 2016). Finally, teachers should become professional educators who can reflect on their instruction to enhance their teaching skills. Being professional educators assists teachers in providing constructive feedback to students (Gaytan & McEwen, 2007), and is available to address their concerns (Umar & Ko, 2022).

Higher education institutions should enhance or establish policies and guidelines for implementing the virtual flipped classroom. These policies and guidelines could include criteria for selecting appropriate courses for virtual flipped learning. They could also contain standards for assessing students in virtual classrooms. Moreover, policies could provide guidelines on timetabling courses to suit virtual flipped classrooms, providing sufficient time for teachers to prepare activities and guide and provide feedback on pre-class activities, and for students to view and complete the pre-class activities.

Providing teachers with professional development will guide them in implementing the virtual flipped classroom. In addition to delivering theoretical knowledge, these programmes should provide applied and institutional knowledge (Elliott, 2017). Also, they should be based on social learning that occurs in social interactions (Reed et al., 2010), lead to changes in behaviours and practices and foster mutual relationships among the teachers (Dysart & Weckerle, 2015). Furthermore, professional development should be designed according to practice-based approaches, ensuring practical and contextualised context (Holland et al., 2018) and providing a safe environment for critiquing and endorsing practice (Fanghanel, 2013). Sam (2020) suggested training teachers on modifying readings and assignments and the teaching style for online instruction. Following the same line of thought, Abou Youssef and Richter (2022) raised a serious call for higher education to push older

generations of teachers to accept and adopt online teaching methodologies.

Higher education institutions should adopt or adapt the curriculum to suit online delivery and the virtual flipped classroom. The curriculum must include group-based activities and be underpinned by student-centred approaches (Porcaro et al., 2016). Additionally, instructional materials should be interactive and suitable for pre-class activities. Adapting the curriculum might also involve making necessary changes to assessments. Projects, portfolios, self-assessments, peer evaluations, presentations, weekly quizzes, and assignments with clear guidelines and supportive, immediate feedback are suitable for virtual learning environments (Gaytan & McEwen, 2007; Gikandi et al., 2011).

Higher education institutions should provide technical support to help teachers design activities for the virtual flipped classroom. Technical support is essential, helping teachers use learning platforms, video conferencing platforms, and software. In addition, institutions could provide teachers with funds for subscriptions to various learning platforms that could assist in designing and delivering content for virtual flipped classrooms (Eliason & Holmes, 2010).

Teacher strategies and institutional support are connected and should be addressed simultaneously. Failing to focus on these areas or compromising one over another could hinder the effective and successful implementation of a virtual flipped classroom.

6. Conclusion

The evidence from this study confirms that virtual flipped classrooms can enhance students' learning in higher education during ERT when teachers follow various strategies. The study proposes a framework for implementing the virtual flipped classroom. Teachers might be unable to successfully implement the virtual flipped classroom if they do not employ certain strategies. These strategies include teachers' abilities to create suitable content for the flipped classroom and establish a flexible learning environment in the three stages of the flipped classroom (pre-class, in-class, and post-class activities). Teachers should follow different methodologies to engage their students throughout the process. Another essential requirement for implementing flipped learning methodology is being a professional educator who can reflect on and improve his/her practices based on collaboration with other teachers. Additionally, the benefits of flipped learning will be realised more effectively with institutional support. This support can be achieved through establishing policies for online learning and teaching that encompass methods and regulations for implementing virtual flipped classrooms. Further, there might be a need to redesign or adapt the curriculum to suit this teaching methodology, and eventually, this might also require a restructuring of course assessments. Additionally, administrators must provide practical and contextualised professional development for teachers with hands-on practice sessions. Finally, technical support can enhance the implementation of this strategy by providing teachers with tools and equipment for creating content and administering

activities in the virtual flipped classroom.

Although this study has focused on one specialisation (ESL context), the findings and proposed framework are not subject-specific. Teachers in an ESL context and other situations should follow the suggested framework when implementing the virtual flipped classroom.

The current study only examined my teaching experience through an autoethnographic research design that included two interviews for data triangulation. Therefore, the subjectivity of this method should be acknowledged. This method was not specifically designed to evaluate the success factors of implementing virtual flipped learning. Rather, it demonstrates how the teaching approach was implemented during COVID-19.

Future work might consider a collective autoethnography research design to provide an in-depth understanding of the phenomenon. There is a scholarly need for case study research that investigates the design and development of virtual flipped learning content and considers factors attributed to the design and implementation of virtual flipped learning. The framework provided in this study is subject to further validation research.

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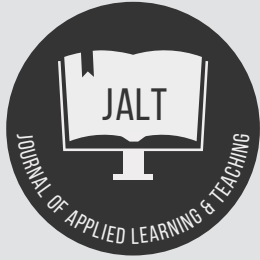Fanghanel, J. (2013). Going public with pedagogical inquiries: SoTL as a methodology for faculty professional development. *Teaching & Learning Inquiry, 1*(1), 59–70. https://search.proquest.com/docview/2093181997?accountid=27575

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A reflection on evolving student support in a post-pandemic higher education environment

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Abstract

The COVID-19 pandemic had an impact on many facets of education and the education experience. This paper seeks to understand how it impacted the support in place for part-time, mature students studying at UCD College of Business. The concepts of learner-centredness and student engagement are explored in order to ask the question 'How has the model of part-time student support provision evolved since the COVID-19 pandemic?'. The Dowling and Ryan (2007) model of student support was used as a heuristic to look at what principle changes are evident in the post-COVID19 environment. This case study demonstrates that the model of part-time student support has evolved since the Dowling and Ryan (2007) model as a result of changing student needs, the external pressures due to the pandemic, and the modes of provision now available to students. In particular, the proliferation of technology has changed the way students ultimately engage with their programme of study. Four central tenets of student support for part-time mature students were identified, namely: 1) Day to day support and use of technology; 2) Feedback and learner progress; 3) Skills Development and 4) Orientation and learner integration. Looking to the future, technology and learner support are fundamental to understanding and achieving learner-centred and engaging student support models. This paper's reflection on the part-time student experience and how learner support might have been reshaped as a result of the pandemic will hopefully help to influence and shape policy-making in higher education and determine how practitioners provide support for part-time students. It also suggests the current concept of learner-centredness might also be expanded upon.

Introduction

The COVID-19 pandemic instigated a major change in programme provision for higher education institutions around the world. This paper intends to review the impact of the pandemic on the student support provision for University College Dublin's (UCD) Diploma in Business Studies (DBS) programme for part-time, mature students and how it might inform practice into the future. This programme was acknowledged previously as a programme with a robust support framework and a learner centred approach (Dowling & Ryan, 2007). When first reviewed in 2007, the DBS supports were built upon the five pillars of personal tutors, feedback, tailored induction, and learner integration, study skills development, and day-to-day support. The discussion here offers a reflection on the learnings of programme provision, particularly during the COVID-19 period, and how they now might shape student provision in the future. To best understand the needs of students, the concepts of academic engagement and learner-centredness are explored in order to consider the future of student support in a post-pandemic education environment at UCD. The paper seeks to address the question: How has the model of part-time student support provision evolved since the COVID-19 pandemic?

The reflection on learner support and learner-centredness is premised upon the case study at UCD during the period 2020-2022 and how the model of student support adapted to the needs of students during the COVID-19 period. The paper takes a reflective approach to the change in practices during this timeframe. The programme which is the focus of the case was the DBS programme for mature students. These students had unique needs as they were mostly working full time and studying part-time during the pandemic period. The exploration of the case study draws on on-site observations and illustrative materials, including programme resources, student online fora meetings, and evaluations, as well as the programme's website (www.ucd.ie/bbs) and student surveys.

Background and literature review

The context of COVID-19

This study is significant as it looks at the needs of a non-traditional set of students and how a programme of study responded to supporting them as the pandemic impacted their studies. Dowling and Ryan (2007) had previously suggested a model of student support. This paper's study is relevant not only by way of recording the impact of the pandemic on a non-traditional cohort but also the fact that the needs and expectations of students have altered during the period, suggesting policy and practice need to respond to these changing needs and expectations. The Dowling and Ryan model set out in the literature review is revisited by the author based on the experience of the students in the DBS programme.

The year 2020 brought one of the biggest global challenges to the provision of higher education with the COVID-19-pandemic. The pandemic was the catalyst for most higher education institutions (HEIs) to progress quickly to blended, digital, and hybrid models of teaching (Crawford et al., 2020). Although for some, this was not new, the accelerated pace with which online and remote delivery was implemented was a steep learning curve for many educators (Colasante et al., 2020).

The move to online provision by higher education globally has been well documented in the literature (Gopal et al., 2021; Pillai et al., 2021; Chakraborty et al., 2021). The additional stress and anxiety experienced by students as a result of the pandemic are also well documented (Fitzgerald & Konrad, 2020; Monzan & Mesa, 2020). While the move to a full online provision in order to allow students to continue their studies was regarded as flexible but stressful (Amameh et al., 2021), the demands of the COVID-19 situation on part-time students who work full-time and have additional home-schooling, caring and work responsibilities were disruptive.

This paper widens the discussion beyond just online provision to review the broadened student support for part-time students and how it has altered as a result of the pandemic. This discussion is intended as an opportunity to reflect on how the pandemic has helped to shape that support and, more importantly, to explore how we can learn from the experience to move to a more student-centred approach in the post-pandemic environment. It allows for contemplation on how institutions support academic engagement and reflection upon learner-centredness in this post-pandemic education landscape. The concepts of academic engagement and learner-centredness are two important concepts reviewed here, before the discussion of the key elements of student support is outlined.

Academic engagement and learner-centredness

The literature demonstrates that student success is often linked with academic engagement (Kahu et al., 2019; Senior et al., 2018). The concept of learner- centredness is premised upon the outlook and nurturing of the general learning environment with the needs of the student (or learner!) to learn as being paramount. Particularly when working with a mature student cohort, as in this case, the non- traditional student is not perceived to have a 'lesser' set of skills, but rather just a different set of skills. This concept of learner-centredness is explored again below.

To understand the idea of learner-centredness, we also need to understand the context that builds a successful environment for strong academic engagement. As mentioned above, part-time learners had a particularly unique experience during the COVID-19 pandemic. Such part-time students would be considered 'non-traditional' learners. In the last two decades, many 'traditional' HEI's have been attempting to grow the engagement of 'non-traditional' learners, including part-time students (Dowling & Ryan, 2007). To continue to successfully foster that academic engagement, it is important to understand the needs of part-time students. That understanding will influence how institutions attract, manage and support students as they embark on, and successfully complete, their studies.

Kim et al. (2019, p. 8) define students' academic engagement as "commitment to or effortful involvement in the context of academic learning throughout a student's entire school experience". Skinner and Pitzer (2012) outline academic engagement as the desire to actively participate in classroom and academic activities. Such academic engagement is deemed to be an effective signal of the quality of students' outcomes and learning experience (Redmond et al., 2018). The concept of academic engagement is very closely aligned with student success. Students who are successful with their studies tend to be engaged academically. Kahu et al. (2019) highlight the importance of exploring the immediate issue that individual students may be grappling with, but also the wider context of university learning and the range of factors, both internal and external to the university, which may be influencing how students successfully engage with their programme of study. Part-time student engagement with their programme of study was set against a backdrop of not just a change in their work arrangements but also may have included caring for young children when childcare facilities closed, home-schooling children, and caring responsibilities for older family members and neighbours. All of these pressures impact the delicate relationship supporting their part-time study and, therefore, the concept of academic engagement as defined above.

Understanding the pressures that affect part-time students' academic engagement, particularly during the pandemic, is directly linked to creating a learner-centred experience. Previous research emphasises the need for both academic and non-academic support, as well as technology to facilitate the progress of more flexible, personalised, and interactive learning environments that need novel ways of providing learning support for open and distance students (Sánchez-Elvira Paniagua & Simpson, 2018). Tait (2000) conceptualises learner support and how system change to accommodate the needs of these part-time learners must be acknowledged with the learner as the starting point. As a result, Tait (2000) recommends that course design, assessment, teaching methods, and the general learning environment must be reviewed with both the learner and their learning in mind. Crimmins (2020, p. 380) outlines that "learner-centredness is founded upon the concept that learners considered non-traditional do not have a 'deficit' identity or situation, or a 'lesser' set of skills, knowledges, or social and cultural capital but rather possess a different situation and set of capabilities from those considered traditional learners". Therefore, learner-centredness should incorporate the knowledge, interests, and preferred ways of learning in higher education of underrepresented groups.
It is not a deficit of knowledge, it is just a different situation and set of complexities. It is important to consider the needs of the part-time, mature learner in designing the assessment, mode of delivery, and the learning environment.

Learner support frameworks

In 2007, Dowling and Ryan explored the student supports for the Diploma in Business Studies Part-Time at UCD. Since 2007, it remains a useful framework to look at both the provisions for learner-centredness and, thereby, the academic engagement of a diverse student cohort. The student profile has remained constant during that time (see programme overview section below for student demographic overview). There were five pillars of effective student support suggested (Dowling & Ryan, 2007, p. 85):

a) Day-to-day support: Students can contact or meet with a qualified academic member of staff who can discuss their study queries.

b) Feedback and learner progress: Provision of student feedback on assessment and active monitoring of student progress during a study term.

c) Study skills development: Accredited academic skills modules to support students in developing academic skills needed at the tertiary level

d) Induction and learner integration: A tailored orientation programme to support students as they socialise and understand the expectations at the tertiary level.

e) Personal Tutors – A dedicated staff member who would provide the day-to-day support outlined above.

In order to consider learner-centredness in a post-pandemic world, we look at the specific case of the DBS programme Part-Time at UCD and how this framework has adjusted to a post-pandemic environment.

Methodology

This paper seeks to address the research question 'How has the model of part-time student support provision evolved since the COVID-19 pandemic?' based on the case of a part-time diploma programme offered by UCD College of Business. A previous paper on this programme and its follow on degree programme of the Bachelor of Business Studies programme was previously undertaken by Dowling and Ryan (2007). A case study methodology was selected for this review as it allowed for an in-depth investigation into learner-centredness and, therefore, academic engagement. The discussion here makes for a suitable case study drawing on on-site observations and illustrative materials (Yin, 1981), including programme materials, student for a, and evaluations, as well as the programme's website (www.ucd.ie/bbs) and student surveys. Using these resources and examining practices over the last two years, allows for the opportunity for productive reflection. Boud et al. (2006) propose the concept of "productive reflection" to address some of the complexities and some of the uncertainties that organisations encounter. Cressey (2006) outlines the advance of the concept of embedded collective reflection, which is associated with a progression from problem-solving within an organisation's setting, overseen by standardisation and control, to a greater emphasis on creativity and innovation through "reflective participation" in the workplace. The three authors here are directly involved in the delivery of the

programme and have taken this case as an opportunity for reflective participation in the programme's development.

The case study: re-exploring the UCD support framework for student part-time provision

Programme overview

The DBS Part-Time was launched in 1996, offering part-time students an accessible mode to return to education. After the first two years of study, students are awarded a DBS. Most students continue into the third and fourth years of the programme and are awarded a Bachelor of Business Studies (BBS) on successful completion of four years of study.

There are two entry routes for the programme. The first, and most common, is based on mature years (23 years of age), life experience, and academic aptitude. Students over 21 years of age, but under the threshold for mature years entry may join based on matriculation. Most students are in their '30s and '40s. The average age from the academic year 2021/22 was 33 years old. Students come from a very broad demographic, cultural, and professional background. Generally, they do not have any tertiary academic qualifications and are seeking a broad degree in business to allow them to prosper in either the field that they are in or move on to an entirely different career path. The programme is managed by the UCD Centre for Distance Learning (CDL), established in 2001 to manage the UCD College of Business portfolio of overseas and domestic part-time programmes. The delivery structure of the programme appeals to this diverse cohort. Students attend three weekends on campus per trimester (six in total per academic year), concurrently undertaking three five-credit modules at the Diploma level, and ten-credit modules at Bachelor level each trimester. The remainder of their studies is undertaken at home. Another key factor in the success of the DBS stage of the programme is two tailored academic skills modules that are offered in the first year. The CDL is cognisant that many students on the programme have not been in formal education for many years – most of whom have no tertiary level education experience at all. Therefore, students take part in the *Skills for Higher Education* module in the first trimester and the *Academic and Transferable Skills* module in their second trimester. These modules are specifically designed with the mature part-time learner at the centre of the learning environment, the assessment, and the teaching delivery. Thus, this learner group and programme make for a particularly interesting cohort to review the impact of COVID-19, their academic engagement, and the need for learner-centeredness.

UCD's immediate reaction to the COVID-19 pandemic

The onset of the COVID-19 pandemic brought about a sudden change in how tertiary education was delivered across the globe. In the context of the DBS, Friday, 13th March, 2020 had been scheduled to be a teaching weekend. While all classes were initially cancelled, an agile approach was immediately adopted and each individual lecturer was canvased to indicate their chosen date and mode of delivery for the content that had been planned to be delivered that weekend. As a business school, the approach was informed by agile project management (i.e. an approach underpinned by four key values: producing bespoke products, responding to uncertainty and change, a fusion of disparate technologies, and both intra-enterprise and inter-enterprise integration (Project Management Journal, 2013). The agile approach is well embedded within the philosophy of the College. With the ongoing dynamic nature of the COVID-19 situation, the agile principles were helpful to inform the approach the programme team adopted around collaboration with customers (i.e students here), regular reflections on the approach taken, providing regular updates on technology (e.g. such as online classroom deliveries) and teams maintain a reasonable and repeatable speed in the dynamic environment.

Within two weeks, all content that had been planned to be delivered in person on 13th and 14th March had been delivered online utilising a variety of platforms. Blackboard Collaborate Ultra proved to be the most common platform used for live webinar delivery as it was integrated into UCD's Virtual Learning Environment, Brightspace. Asynchronous content was also created, mainly in the form of narrated PowerPoint slides.

CDL, as a result of their programme management in China and South East Asia, had a range of resources already available such as video tutorials on how best to use Blackboard Collaborate Ultra in the UCD teaching context, with accompanying guidebooks, and template study guides for online provision of modules. These study guides provide a full overview of the module for students including weekly readings, assessment guides, and topic overviews. When the pandemic forced the closure of campuses all over the world, these resources proved invaluable for both the CDL's overseas programmes and, from March 2020, the DBS programme.

By the final teaching weekend of the academic year in April 2020, the intervening weeks had given lecturers greater experience in the online space, and they were far more comfortable in integrating question and answer sessions, and more bespoke content intended to reflect the virtual setting, as opposed to replicating face-to-face teaching in the online space which was more of a trend with March 2020 online delivery. Over the summer of 2020, a greater proliferation of Zoom for video conferencing solutions saw it become the platform of choice for the 2020/21 Academic Year.

Discussion: the case in action

We will now reflect on the five pillars of student support as outlined by Dowling and Ryan (2007) in light of learner-centredness and how the needs of learners may have changed post-pandemic.

Day-to-day support: the demands of part-time study during COVID-19 and the constraints afterwards on students demonstrated the pivotal need for them to have access to

daily support. The preference for this support has moved to online meetings and online accessibility for individual discussions with staff. In the 2007 version of the framework, this was about the personal tutor. This 2022 framework sees this role reimagined into a more holistic programme support role. The focus of this support is on student accessibility to the programme manager so that they can get clear guidance on the day-to-day running of classes, the content of the academic material, the demands of balancing study with life commitments, and the shift to support with technology. Students report the value of having someone who knows their name, knows their situation, and provides a social connection with the university:

> "Overall, I felt the support from the programme manager was exceptional and in the context of returning to education was invaluable" (DBS Student Survey, May 2022).

Connection is even more important as the students only have class on campus once a month. Some students may not have come to campus at all if they availed of online class provision during the COVID-19 period. Classes are now largely recorded and/or streamed where possible, to allow for students to review class material or view it after a session, should a student miss it through work requirements, attendance preference during COVID-19, or personal demands:

> "I liked how online classes were recorded. If there was any doubt or confusion on a topic, re-watching allowed another opportunity for understanding" (DBS and BBS Student Survey, December 2021).

The prominence of technology now to support students is valuable, but it can potentially disconnect the student from the university. On-campus attendance at the weekends is critical and most students have indicated a preference for this. However, the CDL also acknowledges the opportunities for greater learning and revision that recorded classes afford. Feedback and learner progress: the provision of student feedback on assessment and active monitoring of student progress remains of crucial importance. The two academic skills modules have re-designed the assessment to make it more accessible. The larger assessment elements were replaced with smaller components that allow for earlier and more regular feedback to students. For these modules, students get very detailed individual feedback to support the acquisition and development of relevant skills. This feedback provides insight to the programme staff on the level of skills development or academic ability in the class and where gaps might lie. It also helps to shape the modules and the levels of day-to-day individual or collective student support. The reference to feedback here also acknowledges the opportunities for students to give feedback on the programme such as student/staff fora or student surveys

Study skills development: the skills modules have shifted focus from more than just study skills development to include a more outward-focused approach on both academic and professional skills. The first trimester looks at key academic skills e.g. note taking, essay writing, time management, referencing, etc. In the second trimester, the focus has expanded to support growth within the programme, as well as career and professional development outside of the programme.

A further aspect of skills development that falls outside of the curriculum and for which demand grew during the COVID-19 period is the need to foster and support student wellbeing. Initiatives around student-focused wellbeing workshops, student mindfulness, self-care, and meditation have come to the fore and are being embedded into the additional programme experience to support part-time learners as they balance the demands of part-time study with other commitments. These have taken the structure of workshops, invited speakers, and the digital app Silvercloud which gives students access to Cognitive Behavioural Therapy programmes.

Induction and learner integration: an important pillar for student support remains the orientation programme as students become accustomed to the programme. The format has been reworked to ensure the introduction to programme concepts and academic skills is layered carefully on a just-in-time basis as students face new challenges. This ensures the on-campus orientation is about the development of key relationships and critical study kick-off information, such as how to study, how to take a set of meaningful study notes, and what academic writing looks like. In addition to this, there is an understanding that digital competence is also of importance to a student's programme experience. Key tools such as Brightspace, the UCD virtual learning environment, the UCD student registration system, and the applications for assessment presentations such as Word, PowerPoint, etc, are introduced on a need-to-know basis for the new students. Equally, there are instructions to navigate online teaching spaces such as Zoom, so students are introduced to the functionality and expectations of an online classroom:

> I believe the orientation/onboarding process supported me really well during the first weeks of the programme and also prepared me for the months later. In particular, the emails students receive with all recaps for next activities/deadlines/ modules' registrations, etc proved to be vital to not get lost in the system during the first months (DBS Year 1 Student Survey, May 2022).

Given the developments outlined above, the 2007 framework has been revised to four central tenets of student support that are suggested as critical in a post-pandemic environment for part-time university students (see Figure 1) below:
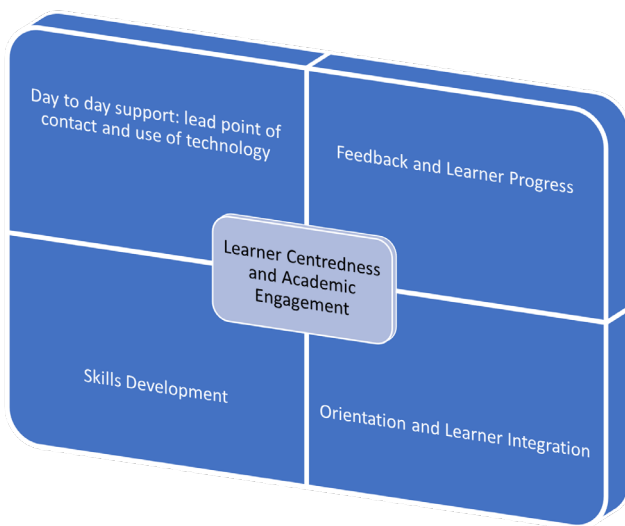
Figure 1: Student supports post pandemic.

Findings

How has the model of part-time student support provision evolved since the COVID-19 pandemic? It has to be acknowledged that the needs of learners have undoubtedly changed during the COVID-19 period and so too have their expectations. The discussion of practice above suggests a refined model of student supports based on Ryan and Dowling's (2007) original model. This revised framework, 'Evolving Student Supports in a Post-Pandemic Environment', provides a means to frame what some of the learner-centred programme features might be. While the model has been refined, it is clear that the points of student engagement have become more complex in recent years. What remains critical is that a learner-centred approach remains the starting point for the engagement and experience of this learner profile, in keeping with Tait's (2000) concept of learner support (see above).

In the 2022 model outlined, the pillar of 'day-to-day support and use of technology' is defined by the greater use of digital platforms for class provision and module material. Tait (2014) had previously called for reforming student support in the digital age to factor in both internal and external factors to the students and integrating student support with teaching. The virtual learning environment has certainly changed how students engage with their studies. The expectations in terms of the use of technology, particularly the opportunities for streaming or recorded sessions, provide programme teams with a unique opportunity to provide flexible provision. This flexibility brings with it an additional challenge to ensure that students remain engaged with their studies. Samson (2022) demonstrated some early indications that it is no longer the case that students who engage remotely with their studies are less successful. Samson's (2022) study shows that while there is no determinant between student performance and mode of engagement, what is clear is that students welcome flexibility in provision. Consequently, while the use of technology has become greater, it appears the need for student support has also become greater. The 'messy realities of students' engagements with digital technology is acknowledged in the literature and thus how this messiness

means students need additional support (Selwyn, 2016, p. 1006). In this case study, as technology is used more and more, be it in terms of class provision or as a tool for study, the students still seek tangible reassurance and support from the programme team.

A second observation is that the pillar of 'feedback and learner progress' remains at the heart of the learner-centred approach of the programme. Calvanti et al, (2021) completed a systematic literature review that demonstrated the importance of feedback in online provision and, more particularly, automated feedback. The need for feedback for DBS students in this COVID-19 online environment demonstrated the importance of feedback. The skills module feedback and programme evaluations, for example, were important in carving out the more external skill focus for this particular cohort. These feedback mechanisms supported the development of such skill modules, and their evolution is based on the multiple feedback modes outlined above.

A final observation is that learner-centredness as a concept has also informed student orientation and learner integration. The current scope of learner-centredness in the literature, as per Crimmins, above could be expanded to consider these two other aspects for students. The earlier concept of learner-centredness, discussed above, is based upon the development of a learning environment based on student needs. The current focus in the literature does not appear to really include the onboarding of students into the environment or how learners are integrated into the environment. Students can often report information overload at busy orientation times. The use of technology, in this case, Zoom, has facilitated both a decompression of the orientation programme as well as the opportunity to record sessions that can be revisited, as and when needed. This decompression of information at a busy time for students and recognition of the learner-centredness during the onboarding period has not yet been acknowledged in the literature. The orientation also provides an opportunity for that important social engagement amongst not only teaching and programme staff, but also the students and their peers.

In addition, the results of Heidari et al. (2021) indicate that students' digital competence could, directly and indirectly, affect their academic engagement in their programme during the pandemic. As academic material continues to be provided in multiple formats, digital competence remains a consideration. The orientation programme outlined above understands that students will need support not only with the curricular learning of the programme, but also the orientation to the digital skills which will support students in their learning. Taking a learner-centred approach here involved having a baseline of understanding of the skills within the group and working to support students, individually and collectively, to meet programme outcomes around technology. For example, the orientation to the virtual learning environment as a session as well as post-orientation individual sessions helped to support students. Equally supporting students, as an individual or a team, in the preparation of team-based assignments and orienting them to Google Docs (the selected online collaboration tool) and Google Meet. Such support does not revolve only

around technical applications but also the use of tools like Google Teams and Zoom for students to access student support meetings. Pre-COVID-19 students were invited to the university for meetings around not only areas of student support but also of progression, academic integrity, or leave of absence. Since COVID-19, such meetings are available online and more accessible to part-time students who are living often far from the university campus.

The pace of change in higher education is great and has necessitated an evolution of the model of part-time student support, in particular since the COVID-19 pandemic. The change is evident in the needs of students, the external pressures on the environment during the pandemic, and also the modes of provision now available to students. Never before has there been such an opportunity to explore different methods of delivery and student experiences for all student cohorts. This opportunity allows higher education practitioners to really consider learner-centredness and what might work best for diverse student cohorts. These opportunities also coincide with a change in student expectations about how programmes might be provided or supported. In the case study above, there is evidence that there are opportunities to reframe many aspects of the programme experience and student supports as a legacy of the pandemic where face-to-face classes are complimented with additional online supports, assessment becomes less traditional, more transferable, and professional skills are introduced, and the need for support for student wellbeing is recognised.

Student wellbeing has been an area that has grown tremendously, just as the related area of corporate well-being, particularly in the COVID-19 period. The concept of student well-being is not new but did come to the fore during the pandemic (Adams et al., 2000) recognised that student well-being generally refers to a state of psychological, intellectual, emotional, physical, social, and spiritual wellness. More recently, Sun and Shek (2014) suggest student well-being comprises eudaimonia indicators, such as fully functioning and positive development, and hedonic indicators of subjective well-being, such as the presence of positive affect, absence of negative affect, and life satisfaction. As student mindfulness, self-care and mediation have come to the fore in the COVID-19 period, they were embedded by the programme into the additional programme experience to support part-time learners as they balance the demands of part-time study with other commitments. Supports in this regard have taken the structure of workshops with occupational therapists, invited speakers, and the digital app Silvercloud, which gives students access to Cognitive Behavioral Therapy programmes. In 2023, a further focus will be added to look at building resilience within students and providing them with the tangible tools to manage the demands of the part-time student as a mature student.

In looking to the future and how higher education practitioners continue to think about academic engagement and learner-centredness, there are some inevitable considerations that arise. Two are discussed here: technology and learner support. First, this case study has identified the role of technology in all of the pillars described above. On-campus programmes have experienced a new space where technology has streamed, recorded or added additional online sessions to complement existing face-to-face provision. Students report that they see the value of on-campus delivery, but at the same time really enjoy the flexibility that technology can provide. A possible concern can be that where this flexibility is afforded, it dilutes the on-campus experience for students. While there is no clear solution, this model does suggest that if you consider the needs of your learner and how you wish them to engage academically, you can find a balance between online and face-to-face. For part-time students, the demand to attend on-campus appears strong, but is best leveraged when supported with some online or recorded provision. Additionally, the role of the programme manager in gathering student and other stakeholder feedback in this regarding is central to navigating this terrain.

Second is learner support. Crimmins's (2020) concept of learner-centredness, as already discussed, requires staff and structures that really understand the needs of students and, particular to this case study, the needs of part-time students. As this paper considers the concept of learner-centredness and what will encourage students to engage with their programme, there is a palpable change in the demand for more outward-facing skills from students. The two academic skills for year one students have been repositioned to ensure that external skills and competences are developed in the programme. Students welcome not only the traditional academic skills but also those of intercultural competencies, reflection, mindfulness, interpersonal, and communication skills.

In addition to a more external facing set of skills developed, there is also a place for a focus on student well-being. It is interesting to see in UCD, for the academic year 2021/22 alone, there are now three dedicated modules available to students on this topic across the university and there are a number of other more ad hoc supports available in this field*. While not traditionally or currently on the curriculum, the feedback to the programme team is that student wellbeing is of increasing importance. This is a result of the COVID-19 situation and the stresses students found themselves under. As things return to normal, there remains an opportunity to locate some programme or extracurricular opportunities to engage with students around their own well-being, being part-time students, and how to mind themselves.

Conclusion and recommendations

This paper has looked at an earlier model of student support and attempted to review how that model might be reframed as a result of the pandemic. The study was generated using a case study and it is acknowledged that the case study approach may have limited wider discernible learnings for a population, are non-generalizable, and can lack the precision of other research methodology (Yin, 1984). All the same it is useful to record some of the areas of student support evolution which has shaped student expectations at UCD and might inform future policy and practice at the university. While there is an abundance of papers reviewing the change in the practice of higher education institutions during the COVID-19 period, this appears to explore the less acknowledged area of student support and revisits

Dowling and Ryan's (2007) student support model in a post-COVID-19 world.

Some of the student support changes outlined here may well have evolved over time, but the exceptional circumstances of the years 2020 and 2021 provided a catalyst to students and higher education practitioners to reframe the student support needs of part-time business students. The COVID-19 pandemic certainly fuelled the proliferation of technology options and quest for increased flexibility, be that logistical flexibility with location, module flexibility, or spatial flexibility with the completion of the assessment. This ideally will help to build an environment to optimise students' academic engagement with their programme.

Of course, what remains central to the success of the student support model is essentially understanding the learners, their needs, and how this frames both the 'in programme curricular experience' (e.g. modules, classes, and assessment) and the 'out of curriculum experience' (e.g. learner support management, additional talks, workshops, opportunities to develop peer relationships). The revised new model of student support proposed above provides a more contemporary heuristic to consider student support for part-time students. This revised heuristic appears to be a more suitable reflection of the support needed by students at present. It will be exciting to see what the shape of student support will be in over the coming years. Will it be the case that the area of student support becomes technologically driven and accessible to students, or will a preference for more traditional, face-to-face support revert? Is it the case that the current demand for student well-being might be embedded into the curricula of primary and secondary level systems, and less needed at the third level? Regardless of the outcome, what is central is that institutions continue to engage with their student stakeholders and actively their models of support, especially as the student population becomes more disparate and prioritises student support services to ensure a quality student experience and high student completion rates.

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What's better than the asynchronous discussion post?

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Abstract

The "discussion post" has been a staple in higher education online classrooms for decades. While educators of online learning widely rely on asynchronous discussion posting to engage students using institutional learning management systems (LMS), discussion posting requires mediation and motivation to sustain participation, is considered task-oriented by students, and has been frequently criticized for inauthentic dialogue. The *Slides Strategy*, which utilizes a collaborative Google Slide deck in concert with Parallaxic Praxis, a knowledge-generating framework, creates an effective environment for meaningful engagement – demonstrating student understanding of material, creating classroom community, and provoking rich, critical dialogue. Collaborative slides used as a pedagogical tool in this way encourage value of all perspectives, diverse modality and thought, and inclusivity through a platform that allows different literacies to cohabitate, working toward decolonizing academia. This paper contextualizes reflections from five asynchronous online courses taught by different instructors, and provides evidence assessing the effectiveness of this strategy through instructor and student perspectives. As educational institutions continue to grapple with an increasing reliance on, and need for, innovative, dynamic, and supportive online learning environments in a post-pandemic landscape, the *Slides Strategy* moves the online discussion post to a more authentic and critically reflexive academic conversation.

Orienting the teaching method

In this paper, we describe a pedagogical strategy for enhancing the ubiquitous "discussion post" in asynchronous online learning spaces. Discussion posting is a widespread formative assessment used in higher education online classes (Lieberman, 2019) that utilizes Learning Management Systems (LMS) to deliver and manage online course content (LMS platforms used in higher education in Canada and the US include Blackboard and Desire2Learn(D2L). The *Slides Strategy* we propose uses Google Slides (a free online presentation software comparable to PowerPoint) to generate meaning-making through transmediation and online conversation. As an alternative platform for student engagement with course content, cohort peers, and the instructor, this strategy fundamentally changes the dynamics of the online discussion post in ways that inspire students, encourage academic risk-taking and creative exploration, and expand students' epistemological, and, at times even axiological lenses. Additionally, for post-secondary institutions that use Google products, moving between Email, Google Drive, and Google Slides is intuitive and user-friendly, with many benefits for managing course workflows. The platform easily allows the inclusion of images, audio, videos, and other media, and the real-time collaborative nature of the application provides whole or group class access to a shared co-constructed learning environment. Google Slides automatically saves and tracks a history so the instructor can readily determine who has contributed to the slide deck and when. Additionally, Google Slides boasts cross-platform availability on major devices and operating systems in contrast to other presentation software (Shrotkatewa, 2021).

Setting: a context for innovation

In a time where the effects of a global pandemic have occurred in tandem with major world movements for social justice, human rights, decolonization, and climate change action, and, as of the writing of this paper, military action in Eastern Europe, it is widely acknowledged that this period of destabilization and trauma has been felt by students in higher education campuses around the world. Gutkin (2022, n.p.) highlights how in these tumultuous and often polarizing contexts, the importance of the higher education classroom being a space "safe enough to be uncomfortable" is precisely where students can learn how to deal with other points of view, especially when confronting and talking about controversial and complex issues. Mouffe (2004) contends that "a good society" is not necessarily one where everyone agrees, but rather one where many conflicting views can be expressed and where different possibilities can be explored. Gutkin (2022, n.p.) further asserts that safespaces provide for the development of the "art of debate" and active listening skills – both of which are essential to develop as students progress through and beyond their academic careers.

A need to foster equitable, diverse and inclusive perspectives is also a pedagogical imperative for developing socially just ways of being, and yet, in the asynchronous classroom[1], a common assumption is that the LMS discussion board can provide such a space for encouraging these perspectives.

In practice, however, the classroom and online discussion forums specifically, can turn into spaces for increasing polarized views and where student voices that bring different perspectives and experiences may be silenced (Gutkin, 2022). In online classrooms, this is most apparent by the physical amount of space a more vocal student can take up in an LMS discussion board forum. Full acceptance of diversity in the classroom not only requires an understanding that morals and values differ among individuals, but also that there is an onus on the educator to provide equitable talking spaces so that the classroom's "turn-taking machinery" (Hitchcock & Hughes, 1989, p. 165) provides students equitable access to the very conversations they are engaged in. Inclusion in education is about learning what it means for people to dwell in difference together and co-presence in dialogue (Hitchcock & Hughes, 1989).

As educators, we believe that it is the pedagogical responsibility of instructors in higher education to build into their course design the environments and instructional strategies needed for this relational development to flourish. How can instructors move beyond assuming that including institutional code of conduct policies in course outlines will teach what it means to live and learn in and through diversity, respectfully? How can diverse student voices provide spaces for increased learning of course material? And how can the discussion post platform, following a successive, sequential posting format, be transformed into an opportunity for other critical and multimodal literacies to be articulated in the classroom?

> Google Slides offered us an opportunity to create a strong community despite our learning being asynchronous. Each week, I looked forward to the insight and creations of my peers through this digital platform. Along with this, I felt commenting on each other's work really provided that feedback loop we were missing asynchronously. In this way, I found… Google Slides to be so different from what I have experienced through virtual learning (asynchronous and not). It allowed us to have a safe space to create, reflect, and celebrate each other's differences and standpoints despite our distance and schedules. (Student from one of the classes.)

While once a novel way to replicate the "lively classroom discussion" in online spaces, in the decades since the advent of online learning, the discussion post has been criticized for its over-use and that it can be exhausting for instructors to effectively manage (Lieberman, 2019) and difficult for students to navigate, follow discussions, and stay motivated to post (de Lima et al., 2019). Overall, studies suggest that this format may not yield the depth of authenticity, reflection, and critical analysis expected at the post-secondary level (Sousa, 2021) and suggest that online course platforms can be challenging spaces for students to develop a sense of community, confidence, and belonging (Poquet et al., 2017).

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1 Asynchronous refers to either fully asynchronous online or hybrid courses where courses are taught in person, but discussion posts and peer interaction happen on the LMS discussion board.

In the following, we present an alternative or supplement to the traditional discussion post, which we refer to as the *Slides Strategy*. We discuss its pedagogical rationale and theoretical underpinnings, describe its integration into course design and assessment, provide an analysis of its contributions to student learning, and conclude with contributions to professional practice and transferability. Throughout, anonymized student perspectives from unsolicited course comments, mid-term feedback, and course evaluations are included. We are passionate about the *Slides Strategy*'s ability to express and render multiple perspectives and invite the complicated and necessary conversations that evolve socially responsible, democratic societies and to exist in difference, through its learner-centered pedagogical design. In using infrastructures that ensure all voices are valued, we build a space for critical consciousness into curriculum design.

> It behooves us as people in the academy to create a space where we can have a conversation about even potentially offensive ideas in such a way that we can get past the offense. Academic freedom is vital to help us deal with precisely the kind of contentious and difficult ideas that some people might want to shut down because they can cause harm or offense (Khalid, in Gutkin, 2022, n.p.).

Pedagogical rationale

Although Google Slides functions by meeting many of the same curricular objectives as discussion post forums on common LMS systems, it offers unique pedagogical advantages that foster compassionate classroom spaces that allow for authentic engagement, relational learning, and community building that acknowledge a diversity of perspectives, directly attending to the most widely held prerequisite for successful course completion – the quality of the online community (Nagel et al., 2009). Further, although the *Slides Strategy* was being used by Sameshima prior to the COVID-19 pandemic, this strategy is especially useful with an increasing reliance on, and need for, innovative, accessible, dynamic, and supportive online learning environments (Johnson, 2022) to address increasing levels of student disengagement (McMurtrie, 2022).

Theoretical underpinnings

Key theoretical underpinnings of this learning design use tenets drawn from the Parallaxic Praxis model (Sameshima et al., 2019a), the curricular concept of Ma (Sameshima et al., 2019b), and intentional relational connection building (Sameshima, 2018), each to be explicated here. "Making" is a key aspect of the *Slides Strategy*. Making inherently fosters embodied learning, creative aesthetics, and learning wholeness, which bring about increased receptivity and openness to learning, fosters skills of relationality, and models/shares learning-in-process (Sameshima, 2008).

The Parallaxic Praxis model involves the creation of multiple representations or response renderings of the same data from different perspectives using multi-modal mediums. In the *Slides Strategy*, students "make" their thoughts materially

in a slide. New knowledge is generated in the creation of an artefact that helps the learner understand the data (in this case, the readings). New knowledge is also generated when renderings are presented and juxtaposed with one another (when students see and respond to one another's works). Discussing the multi-modal renderings is a systematic comparative analysis process that helps the learner better understand the content they are learning about. Viewing the various slides (all responses to the same content theme readings) creates in the learner a negotiation of the self, until they are able to find their own positionality and personal view of the content being presented. The process of making a slide, an object, or an experience to respond to the content, is a means of materializing meaning. This process is a heuristic acculturating journey of the self (Djuraskovic & Arthur, 2010). "Identifying with the focus of inquiry, self-dialogue, tacit knowing, intuition, indwelling, focusing, and [creating] the internal frame of reference" (2010, p. 1573) are the sequential processes of meaning-making espoused in this process.

The concept of *ma* (Sameshima et al., 2019b) is also a key underpinning of the *Slides Strategy*. Ma is a Japanese concept that points to the attentive consciousness of the space of the not yet. Curriculum theorists have referred to it as the third space, the in-between, a burgeoning space of becoming. Plett (2020) describes this space as one of liminality, where both emptiness and openness exist together; where one story is ending and another just emerging. Ma can be imagined as the space between two far-apart stepping stones, and the "making" is the vehicle that mediates the space between the stones. The *Slides Strategy* involves making an artefact as a response to a reading, and this action operates within a ma space to generate a step between the far-apart stones. As educators, we believe that holding space for students to navigate the uncertain, complex, and ambiguous spaces of learning is the essence of the pedagogical task – and needed to support student transformation. Generating relational connections in the class can be intentional. Making and gifting (creating a slide and sharing it with the class) generate love. The construction of an artefact is an act of materializing thinking. The artefact (the slide, dance, song, etc.) can echo a feeling or resonate with someone who might have an idea or thought that needs a scaffold for meaning-making. This relational resonance is a form of communing, an acknowledgment of identities, and support for developing positionality (Sameshima, 2018). Puig de la Bellacasa (2017) asserts that a relational way of thinking, or "thinking with... creates new patterns out of previous multiplicities, intervening by adding layers of meaning rather than merely deconstructing or conforming to ready-made categories" (p. 72). The recognition of the self in the other creates connection and community, breaking the loneliness of continued separation and isolation in this pandemic and humanity writ large. Indeed, 70% of Millennials and Generation Z report being lonely (Cigna, 2020):

I feel this class has done a fantastic job in creating community by having students comment throughout the week and interact not only with thoughts but, because of the creative aspect which connects to the freedoms the course offers, also with feelings and personal connections... Engaging with peoples' thoughts on a reading is one thing and I think it's something many students have become more numb to as it's been a solution during online learning that is never quite the same as discussing in person. However, the addition of art brought an encouragement of personal connection and interpretation which regular discussion posts often have missing. (Student from one of the classes.)

Practice: the Google Slides strategy

This paper draws from using this pedagogical method in five separate, asynchronous, graduate-level fully online classes. The student demographics in these courses were adult, primarily in-practice K-12 teachers. The *Slides Strategy* was used specifically as a tool for students to generate meaning from their weekly readings and to discuss the reading content with one another. In these classes, Google Slides was not used in the traditional manner – as a presentation backdrop or reference while a speaker is presenting. Rather, each student was given the responsibility of making one slide each week as part of a weekly class deck[2].

Google Slides is used to collate learning on a topic, as well as integrate the functions of an annotations app (where one can add notes to a text) like Google Jamboard, where multiple people can add brainstorming content to a shared blank page and Twitter, where created content can be responded to in threaded conversations and annotations. The comments can be edited, deleted, or linked directly via a URL. While D2L (Desire2Learn, an LMS platform) has similar features, the Google Slides environment provides a much more intuitive non-linear discussion environment that presents students with an open canvas for creating and learning, as well as collating, threading, and organizing these interactions.

The use of Google Slides in teaching and learning is not unique; however, when this application is coupled with foundational tenets of embodied aesthetic learning (Sameshima, 2008), the generation of multiple perspectives of the Parallaxic Praxis model (Sameshima et al., 2019a) and *ma*, the Japanese concept of supportive creative space for knowledge generation (Sameshima et al., 2019b, 2019c); the possibilities for creating collective enhanced learning are unbounded. There has been consistent positive feedback from students that the *Slides Strategy*, as framed in these courses, provides strong organizational structure to "Reading Response" type activities; deep access and interaction with difficult content; reflective and reflexive engagement; compassionate relational building with peers; involved, authentic learning and communication; and the development of expanded views by seeing "into" others' perspectives.

2 In a 13-week course, students made 10 slides. Slides were submitted once a week in response to core assigned readings.

Prior to starting this course, I always knew it was important to gain knowledge from another person's perspective, but I did not know how critical it was until this course. After seeing the different perspectives of all the different pieces of art that were displayed on Google Slides, I truly understood why understanding another person's perspective is so important. Collaborating and discussing with others allows you to open up your mind and use your critical thinking skills in order to understand another person's viewpoint. (Student from one of the classes.)

Strategy integration into course assignments

This strategy is introduced in the course syllabus and in the first week of class. The instructor provides an example of what is expected using the example of the Johari Window model[3] (Luft & Ingham, 1961) and invites students to respond using a slide in the deck as a "risk-free" and trust-building introduction to the educational space. The instructional slide decks in the first few weeks of the course are led by the instructor, with students completing reading response slides.

Instructional leadership team

In the following weeks, a group of student leaders, called the "instructional leadership team" are designated to prepare opening slides for the assigned topic. They are asked to create the following presentation slides:

- A welcoming title slide

- A readings list slide (adding their suggested reading to the core reading(s) linked to the shared readings folder)

- A synopsis/summary of key points slide

- A selection of key quotes slide

- A leading questions slide and instructions

- An individual personal response slide to one of the key concepts

Based on the readings provided, every week, each student creates one slide, integrating any media or creative literacies (Gladwin et al., 2022; Orasi & Sameshima, 2022) they wish, as a content response to materially express their learning. They can make something that they photograph or video, or they can work directly on the slide with text and found images. Students are encouraged to use the Presentation Notes section below the slide to include an artist statement or abstract and applicable references to contextualize their interpretation for peers. Students often make info-graphic-

3 The Johari Window Model (Luft & Ingham, 1961) is a trust building tool that is used to improve the dynamics of communication between individuals in group settings. It is a heuristic device for developing human relationships.

like responses initially and branch out to include other forms of arts-integrated research such as poetry, painting, sculpture, performance, etc. The goal of the renderings is to share a personal response that provokes discussion. Based on the artefacts created, students then engage in conversation with an assigned group of peers.

> I appreciated the use of Google Slides rather than strictly using D2L. The layout of the slides offers the chance for us to reflect on the readings by sharing a visual representation. Having the visual solidified the theme of the week, and while some members chose to focus on the same texts, there were still different responses to the same text... I particularly enjoyed using Google Slides for the comment discussion board. At times there were multiple conversations occurring on one slide, where new discussion threads reflected different ideas, examples, and reflections. This would be a great tool to use in the elementary and secondary classroom for students to build on each other's thinking, or to pose a unique idea through their own thread. (Student from one of the classes.)

Strategy integration into evaluation

In a 12-week course, there are 10 weeks of reading responses where 10 percent of the grade is for creating a response and 10% for students engaging with their assigned peer group. Therefore, students have 20% of their full grade attached to engaging and responding to readings. To earn higher marks, students must demonstrate extensive engagement or interact with other students beyond their assigned group of five. They are free to comment on other slides made by students in the course. In this evaluation system, students who miss a full week of readings and responses only lose two percent of their grade. This grading system has promoted wellness during COVID-19, particularly for students who have encountered illness or COVID-related consequences during the term and have selectively opted out of a week of readings as necessary. Set up this way, this system intentionally creates value in learning for the sake of personal interest. While readings, slides, and responses are time-consuming for only two percent of the weekly mark, all these efforts filter into the other assignments for a much more sustained learning experience.

Analysis

Practical benefits of the application

Before the course begins, the instructor sets up a named slide deck for each of the assigned reading weeks – as the creator, the instructor can opt to receive notifications when students are engaged. Class and instructor discussions use the threaded comment and reply features in Google Slides. Students are notified when others comment in their threads – this feature supports ongoing asynchronous online conversations in real-time. Students are also able to use the @name feature to make linked connections between slides and ideas. Further, students can also link readings or other

resources within their chats or upload large files (Google automatically creates links for large files and other media). Google Slides compresses comments on the right so that many different conversations can take place simultaneously. This makes it easier to visually navigate and recall which conversation students are taking part in while also not being overwhelming (mentally and timewise) for students to have to scroll through continuous comments in order to engage where they wish, as they would need to, in traditional discussion posts.

> I really found that creating a slide as I read was powerful in helping me retain my readings! It was like creating an art piece that encapsulated my most important thoughts and takeaways from the readings. It seemed to imprint things deeper for me in my mind. Visually putting them on a slide was powerful in terms of engaging others in meaningful discussion. I enjoyed seeing how others interpreted the readings visually, and reading other slides helped to reinforce different concepts. (Student from one of the classes.)

Relational learning & changing learner expectations

This strategy relies on the willingness of the student(s) to be personally involved in the learning process, and open to the different shapes of learning and online engagement that employ a pedagogical philosophy where all learning happens in relation (Sameshima et al., 2018).

> One thing I value very highly about this class is how the weekly prompts allow students to explore interests through art and the readings of the week. There is a great mixture of structure in terms of tasks we must complete with a mixture of freedom in terms of how we complete each task and what we may focus on within each week. (Student from one of the classes.)

While this strategy creates a learning ecosystem where students have the responsibility and power to control what they create and how they wish to engage with topics and issues that arise in class, students who expect traditional didactic approaches may not embrace this framework.

> The instructor didn't teach us anything - we could have just learned it ourselves. (Student from one of the classes.)

While infrequent, comments like this provide valuable insight into educational upbringings that still defer to colonized modes of teaching and learning that perpetuate the banking model of education (Freire, 2001), and place reliance on the teacher's perspective as the fountain of truth. As instructors, these comments remind us that not all students share educational axiologies that value another's interpretations, or trust and acknowledge the value in their own critical interpretations of course material. These comments not only emphasize the relevance of the Google

Slides Strategy in today's higher education classroom further because of its ability to propel students to think alternatively about educational fixtures such as the discussion post, but they tell us something about the importance of the role of student curiosity and motivation towards new ways of thinking about knowledge and learning, and that there are some learners who need more scaffolded support. Dewhurst (2022) asserts that in the classroom, time is needed to "identify and practice what it takes to get to know and work with people across difference. We need opportunities to move from theories of engagement to actual habits of connecting" (p. 10). It is our hope that this work will provide a path to increasing these practices in online education.

Spaces for authenticity, support, and vulnerability

Figure 1 is a screenshot of a student's Reading Response slide. This student has created an infographic-type slide to help them make sense of the reading. Please digitally enlarge the screenshot to better read the content as you wish. One student notes, "I'm glad you struggled with this concept at first – makes me feel better about also being unclear." Another student adds, "Much like you and [blinded], I too was a little confused about this topic at first. I think you bring forth a very interesting point about stage 2... I think that the ability to create different artefacts assists in displaying the various interpretations that we can all gather." To the left of the screenshot, one can see samples other students have created.

> Google Slides made it easy and accessible to convey my learning and creativity. I was able to elaborate on my understanding, using images, videos, poetry, and more. I could link my understanding to other creative works easily while giving credit to the artists. I felt that I could easily organize my responses and thoughts in a creative way that made sense to me, such as through visual collages. One of the most meaningful aspects was the community piece. I could easily interact with my peer's work, by commenting on their responses and creating a dialogue in real-time. As a visual learner, I felt like I was able to get to know the students in my class more easily, by using Google Slides. I could put a face to the name because of the Google Account profile pictures, and I could more accurately understand other students' perspectives through the multimodal platform. (Student from one of the classes.)

McDougall (2015) reports that while adult students are able to demonstrate support and respect as well as discuss sensitive topics in online environments, these outcomes are contingent on the lecturer. Here we focus on the capacity of the tool itself, to inherently create these outcomes. McDougall describes authentic learning spaces as "meaningful, challenging and proactive learning experiences" (p. 96). The researcher describes authentic activities as connected to real-world connections (see Purcell-Gates et al., 2000) and the authenticity of the learning environment as key to improved learning outcomes

(see Herrington & Oliver, 2000). When students make their own symbolic responses, they are materially extending themselves, and their identities, into the objects they create. The representation of understanding they create is original and authentic. This material closeness merges the space between formal school learning and real-world learning, thereby creating the capacity for authentic engagement with the otherwise distanced curriculum. McDougall (2015) further describes the concept of 'authentic discussion' as meaningful analytical discussion (see McCann, 2003) requiring critical thinking and analysis (see Johannessen, 2003), and evidencing metadiscourse – students articulating and reflecting on their thinking (see Calfee et al., 1994). Depth of learning is contingent on the level of risk and autonomy (McDougall, 2015) and thus, using Parallaxic Praxis tenets within the *Slides Strategy* makes possible deep authentic learning spaces as students have extensive options on what to make, what medium they wish to use, and autonomy in expressing their learnings.

> One of the reasons I loved and enjoyed this style of learning was because I got out of it as much as I invested, and then some. For independent learners who are highly motivated, I felt like I had more control over when and how I engaged with the material. (Student from one of the classes.)

> My personal experiences as a student in online courses where a large portion of the grades was based on discussion posts have been pervaded with academic showmanship and/or requirements to respond to others' posts where it was evident that the classmate had not engaged with the material. This made the discussions forced, and awkward, and if I am being truthful, the connection to my peers, whom I could only know through their words, lacked as much authenticity as my learning in this space. I can also admit to previously being the well-intentioned educator on the other side of administering these forums. Both I and my teaching colleagues have observed that many students can also seem defensive when asked probing questions on their discussion posts. (Orasi's reflection.)

Content, student motivation, engagement, and well-being

Kerr and Frese (2016) report that up to 80 percent of university students do not read their assigned readings. The reasons the researchers provide are unpreparedness, lack of motivation, time constraints, and underestimation of reading importance. The Google *Slides Strategy* addresses each concern. Unpreparedness: This strategy allows students to learn from and with their peers. They can see what others have posted and can build from others' ideas. *Motivation*: Students are motivated to complete a slide because they are part of a team. The team is small enough so that their contribution is valued and missed (usually four to five students). Moreover, we have noted that the students also receive significant feedback and engagement from their peers outside of their teams. While traditional assignments are made for the teacher and grade, in this case, the

student's slide contribution is a personal meaning-making creation because it is relatively decoupled from mark value (the slide and engagement with peer slides are only worth a maximum of two percent of the grade) and is considered a pedagogical gift/lesson for the other. *Time constraints*: Students understand that the weekly assignment is only a possible two percent of the grade (one percent for a slide and one percent for interaction), and stressed or ill students have chosen at times to intentionally skip a week to reset. *Importance of the reading*: This has not been an issue, as there are core readings, supplementary readings, and student-contributed readings. Students are given the autonomy to manage their own time with weekly readings prioritized by the instructor as core and supplementary readings and are able to choose one or all readings to incorporate into their weekly slide. In addition, students who may have elected to skip a particular reading may still see it reflected in another student's slide, reinforcing the importance of the chosen readings to the weekly topics.

Significantly, from a well-being perspective, students also indicated that the slide-making and peer interaction created excitement and a "looking forward" to both creating artefacts and "seeing" others' weekly reflections. Wise et al.'s (2014) research found that the quality of student posts has also benefitted when students are reading and engaging with their peers' posts. Students in our classes indicated that the slides were sources of motivation and inspiration, which is particularly important in the context of the isolation of many online asynchronous graduate studies programs and even more so during a pandemic. Students frequently reported a greater sense of community and personal connection with peers in this online space explicitly comparing this space to their other discussion spaces.

> I am so grateful for the opportunity to engage with my peers in such dynamic, engaging, and thought-provoking conversations week after week. It has been a real comfort to open my emails day after day and see how we are all dealing with and coping with COVID by engaging positively with our coursework. (Student from one of the classes.)

Looking at Figure 1 again, one can see a screenshot of the shared Google Slides environment. Along the left, students can view instructional slides created by the group leaders of the week and slides classmates have created. In the center, students create their own slide – a response to the core reading(s) of the week. To the right, peer responses and conversations about the slides appear. The conversations can be collapsed and are also threaded. In this example, the student has chosen to create an infographic-based slide. It is common that most students begin with infographics, and as they become more comfortable with risk-taking through the course, many will begin using other modalities and decreasing the amount of text on the slide (while usually writing more in the Notes section). Of interest in this slide is how students are helping one another understand the course content, while also making connections and referencing other concepts in the readings.
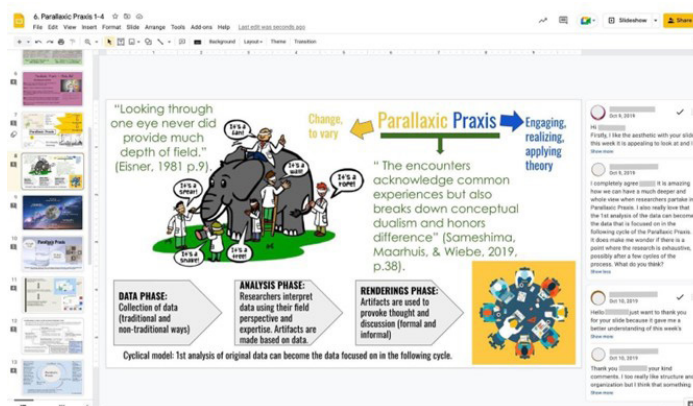
Figure 1: Example of Reading Response slide using modeling to make meaning. Please expand to view.

Spaces for play, creative autonomy and experimentation

Although discussion forum features in most LMS systems also provide for the uploading of image, video, or audio files, incorporating alternative presentation formats successfully (and meaningfully) requires additional pedagogical considerations. Inviting students to present their knowledge of course content in different modalities without the pedagogical imperative to also cultivate a safe space and a sustained ethos of exploration and play in the classroom environment is unlikely to create a transformative change in their learning of the relational. First, there has to be a space for play and multimodal experimentation that is modeled by the instructor. In this strategy, the instructor leads through examples in the first weeks of class. The learner-centeredness of this design also enables the learner to initiate how far to take their response each week. This was particularly important for highly motivated and more advanced students in the class, as well as those at the other end of the spectrum who may have not been invited to present their learning in alternative ways in their prior learning environments. In short, this approach was able to meet the students where they were at, providing guidance and structure as well as greater autonomy in the "shape" and direction of discussion posts.

In the students' comments to one another, we also observed evidence of community and of students-as-teachers, moving the peer-to-peer relationship from a text-based one to one that is multidimensional, bringing "volume, depth and range of possibilities to how we relate to one another" (Dewhurst, 2022, p. 12). While peers did still support one another on a job well done, they were not afraid to ask difficult questions of each other, relate the content to their personal and professional experiences outside of the course, reflect a level of compassion and mutual support, risk-take, and even sprinkle humour here and there. Google Slides provides concrete examples of how multiple lines of thinking and understanding can simultaneously inhabit a space, a foundational tenet of the Parallaxic Praxis model. A student writes:

Without a doubt, though, the moment of most significant shifting in my perception/learning occurred when I first encountered the Ma Space. This caused an explosion in my brain that reverberated throughout the course of the semester, and I know that it will have a deep impact on my worldview for the remainder of my degree and life. I had long been at odds with the dualistic nature of so many elements of academia specifically (as well as the world in general) and had engaged in much thought as to how I could possibly bridge concepts/ideas/worldviews that seemed to be in such opposition to each other. The Ma Space provided me with a new way to understand the seemingly oppositional nature of these things, as not needing to be necessarily resolved, but as generating the area in which the real detail could be investigated and revealed. (Student from one of the classes.)

Figure 2 offers an example that demonstrates the depth of engagement with the reading assignment and provocative interaction with peers. Below the slide, there is a "Presentation Notes" section where the slide-maker may add an artist statement, abstract, or references. Please expand the screenshots to enlarge the text. The example demonstrates students' engagement with the content and one another and emphasizes how this strategy enables teaching *how* to think, not *what* to think.
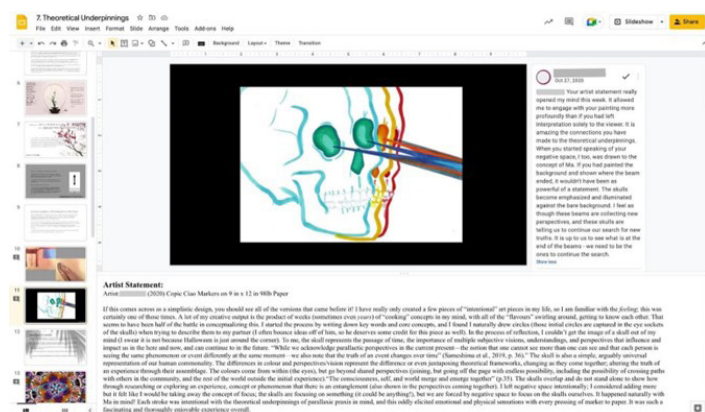
Figure 2: Depth of learning and interaction. Screenshot of a Google Slide.

In Figure 3 specifically, a student has created hand-painted shoes as their reflection slide for the week's topic of community activism. As an artefact created as part of the last week of the 12 week-long course, the shoes demonstrate the students' growth in creative risk taking and theorizing through metaphor.

Class community

Finally, the creation of weekly slides assisted with the retention of readings as well as an ongoing record of the class's cumulative growth over the term. Students appreciated the ability to easily access prior weeks' slide

decks to refer to and reflect on. The collective slide decks became a space to proudly exhibit and document learning.

Google Slides felt more like a gallery and collaboration over D2L because you could see people's work on the slides bar, get a sense of [the] theme, and by the end of the week, there was a collection of work [that] reflected the theme. On D2L, there would be more of a disconnect in this way as everyone has their own thread, and you have to click into it to see the work rather than having the outline as Google Slides has. (Student from one of the classes.)

Contributions to professional teaching practice

As the owner of the Slide Deck, when a comment is made, the instructor receives a notification in their email. Treated like a text chat feature, the instructor can very quickly read the submission and immediately make a comment or not (even from a phone). Students can also set up notifications and can continue chats with peers similar to chat messaging. Reading comments in real-time as students post them allows those in the class to dwell on their thinking in an ongoing way.

Interacting on Google Slides was also much easier to keep track of and user-friendly compared to discussing through D2L. (Student from one of the classes.)

I was able to really put a lot of myself, my creativity, my personality, and my own understanding through such a digital medium! I wish more courses incorporated this as a way to strike discussion since it made the course more personable and allowed a safe space for on-the-spot collaboration. (Student from one of the classes.)

Compared to moderating LMS discussion boards in the past, we have found that interactions with students using the *Slides Strategy* are more creative and thought-through because there is an express goal of engaging with the other (as compared to engaging with the content). In this way, students are being mentored in a contiguous manner, different from teacher/student communication that is predominantly transactional or about the content. We

purposely do not comment or respond in every conversation, but we still read all the threads students are creating and can connect them to peers who are not in their interaction bubble or provide references or resources.

Conclusion

Engagement

It is also important to discuss how using this methodology has contributed to the individual instructor's engagement and fulfillment. It is no secret that the task of teaching in these tumultuous times has been equally challenging for educators. Teacher shortages, teacher attrition, and teacher burnout continue to be issues in the profession (Blazer, 2010; Loveless, 2022). While teaching using the Google *Slides Strategy* requires the instructor to manage their time for interacting/assessing student work differently; for example, by adding smaller, more frequent blocks of time to the course, both of us, as instructors, have noted benefits that are inspiring, motivating, and affirming.

Although every course assignment and semester brings its own set of challenges and rewards, our learnings from students in this space have been impactful. We have observed a level of engagement and growth in the students that inspires as well as teaches us about the students we are working with. In this reciprocal space, each week of the semester, we have observed the students navigate the weekly discussions and peer interaction with progressively reflective, imaginative, and critical posts. The modalities of their reflections have also advanced from relying on images from the internet as metaphors of representation of their understanding, to composing music and vocal scores, making clay and digital sculptures, creating paintings, poems, choreographing dance routines, and even writing personal narratives to share their understanding with the class. The Google slides themselves have become pedagogical tools for the entire class community and have demonstrated the growth of a diverse group of learners, and a pedagogical community with important viewpoints, interpretations, and knowledge to share. Further, as the students in these classes are teachers themselves, numerous students commented on wanting to use the strategy in their own K-12 classes.

> I'm learning a lot about practices that I had not considered before. I enjoy the subjectivity that we get to display each week, and seeing others' perspectives is fascinating. The slide and comment process are also a new format [that] I will be utilizing when I get back to teaching. (Student from one of the classes.)

While the *Slides Strategy* was used in graduate-level courses focusing on *Arts in the Curriculum* and an introduction to *Arts Integrated Research Approaches* to intentionally echo the theoretical underpinnings of arts-integrated research; this structured strategy promotes deep reflective and reflexive inquiry, creativity, exploration, attention to detail, aesthetics and form, and can be used at any level, course or discipline that can comfortably use Google Slides as a presentation application.

Recommendations

For instructors wishing to integrate this strategy into their teaching practice, particularly for classes with younger/K-12 students, students from disciplines outside of education, or as part of hybrid synchronous/asynchronous course delivery, we recommend the following:

- Modeling of the strategy and the possibilities of alternative presentation formats by the instructor. While instructors may encourage alternative presentation formats in their classroom or online post forums; in practice, students may need more guidance or encouragement with the use of exemplars in order to actively and effectively pursue these options. These activities gradually build student confidence.

- Integrating the strategy throughout the course or term. As arts-integrated researchers and teachers, we have both observed that it takes time for students to deeply engage with new ways of seeing and communicating their understandings. Time and practice are needed so that students can find their own positioning of "how" to see, conceptualize, and think about the implications.

- Using the weekly response as a form of low stakes formative assessment allows for the instructor to recognize where students may be struggling and offer guidance and support. Although it may be tempting to use this strategy as a major project/course deliverable, we believe it is far more effective as a sustained practice of creating and meaning-making.

- Requiring all students to sign a class confidentiality agreement. This can be done directly in the notes section of the first week's Slides[4]. This serves as a visual reminder of student obligations and sets the tone for ethical engagement with others.

Looking forward

One of the key benefits of pairing Parallaxic Praxis with Google Slides is that students see evidence of a connection between the formal curriculum content and their lived experiences. They are also able to see the broader aims of education as they are able to extend and integrate an academic article into their lived worldviews. Learning to see others' perspectives also grows important capacities for

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4 In an introductory slide, the instructors created a confidentiality statement and each student was asked to record their name below in the notes section to acknowledge commitment and consent.

compassion and the key question of our lives together: How do we learn, live and sustain this world well together?

> Often, when I felt a little demotivated or wanted to be inspired, I just jumped into our Google shared folder and wandered through the slides of my colleagues. It kind of brought me to life again. It reminded me of the many perspectives that surround us all, and how they are such a valuable part of the learning process. (Student from one of the classes.)

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Lecturers' perceptions of flipped learning in higher education: A case study on flipped classroom implementation in Singapore Polytechnic

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Keywords

Abstract

Higher education institutions have adopted flipped learning in recent years, and it is worthwhile to examine how the users have perceived such a change. While many research studies focused on students as participants, this study examines the lecturers' perception of flipped learning. Findings in the study showed that both lecturers' perceived student behaviour and instructional consideration had a significant and positive effect on student learning. The study also attempted to examine whether lecturers' experience in flipped learning would moderate instructional consideration and student learning. Results showed that lecturers' experience in flipped learning had no influence on instructional consideration and student learning.

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Article Info

Introduction

In early 2020, education institutions worldwide were faced with an unprecedented challenge in the wake of massive school and university closures as part of the efforts to contain the spread of COVID-19 (UNESCO, 2020). Responses in higher education were diverse, ranging from approaches in which established courses were offered through online meeting platforms like Zoom and Microsoft Teams to redeveloping course curricula in a fully online, self-directed format (Crawford et al., 2020). Many studies have also emerged around the globe because of the COVID-19 situation on how different lesson deliveries had effects on student learning. For instance, Campillo-Ferrer and Miralles-Martínez (2021) investigated the effectiveness of the flipped classroom model on student motivation and learning during the COVID-19 pandemic. Latorre-Cosculluela et al. (2021) analysed the effectiveness perceived by university students of flipped learning for the development of 21st-century competencies. Elkhatat and Al-Muhtaseb (2021) discussed how hybrid online-flipped learning pedagogy for teaching laboratory courses mitigated the pandemic COVID-19 confinement and enabled effective sustainable delivery.

Flipped learning has become one of the viable options as education institutions adopt alternative ways to continue teaching and learning to reduce the face-to-face contact given the COVID-19 situation (Tang et al., 2020). The approach provides students with direct access to video lectures, slides, and other teaching resources on online educational platforms (Bergmann & Sams, 2012). Flipped learning allows structured independent learning, allowing teachers to provide feedback and assistance through innovative resources and learning management systems in parallel with the implementation of collaborative problem-solving activities and group discussions in face-to-face lessons.

Literature review

Flipped classroom refers to a blended learning strategy where students watch video instruction or engage in online learning activities meant for whole-group consumption on their own time, opening class time to individual support and higher-level engagement with the concept (Aghaei et al. 2019; Gündüz & Akkoyunlu 2019; Yang & Chen 2019). The term flipped classroom was coined in 2012 by two high school chemistry teachers, Bergmann and Sams (2012), who began teaching with this model in 2007. Since then, the Flipped Learning Model has spread to many other teachers and instructors within K-12 and college and university settings. Sams and Bergmann started the Flipped Learning Network™ in 1992 to provide educators with the necessary knowledge, skills, and resources to implement the Flipped Learning Model (Sherrow et al., 2016). Educators, scholars, researchers, practitioners, technologists, and thought leaders in flipped learning formed the Flipped Learning Global Initiative (FLGI) in 2016 (Birgili et al., 2021). FLGI supports the adoption of flipped learning worldwide, and it contributed to replacing the term "flipped classroom" with "flipped learning". The change in terminology reflected an expanded understanding of flipped learning as an approach

independent of teaching and learning environments, rather than a class organisation like in a physical classroom. In a flipped learning setting, instructors make lessons available to students wherever convenient. Instructors may deliver this information by recording and narrating screencasts, demonstrating, explaining concepts using computers, creating videos of themselves teaching, or creating online video lessons. Students can watch the videos or screencasts repeatedly as they need to, enabling them to be more productive learners in the classroom (Sota, 2016). As direct instruction is delivered outside the group learning space, instructors can use in-class time to engage and provide them with individualised support (McDonald & Smith, 2013).

There is an imperative need to distinguish between flipped learning and blended learning. The difference is that flipped learning refers to offering pre-class materials online and using class time for interactive and constructivist learning. In contrast, blended learning encompasses online and face-to-face learning (Greener, 2015). Saichaie (2020) attempted to explain that blended learning involves a learning environment that combines face-to-face instruction with technology-mediated instruction. It is a mixture of face-to-face and online instruction where student seat time is not replaced, but the learning process is redesigned. On the other hand, flipped learning inverts the traditional use of class time so that activities that have traditionally taken place inside the classroom take place outside the classroom and vice versa. According to Saichie (2020), flipped learning is relatively less reliant on technology than blended learning.

There have been many studies on the perception of flipped learning in the last two decades, many focusing on the students' perception. For the discussion of this paper, we will focus on teachers' perceptions of flipped learning in higher education. A few studies in Europe were conducted to examine teachers' perceptions of flipped learning. For instance, a study on 356 Italian teachers' perceptions of flipped learning found that the approach had a significant positive effect on implementing personalised students' learning (Bevilacqua & Campión, 2019). 69.7% of the teachers stated they could better differentiate their teaching through flipped learning. In comparison, 26.6% affirmed that they could differentiate slightly better, while only 3.6% were barely able or unable to differentiate better. In another study with 316 teachers from various educational centres in Spain, the results indicated that students' participation had improved (Belmonte et al., 2019). The interaction between those involved in the teaching and learning processes also improved. The teachers mentioned that students' interaction and self-esteem showed improvement. Most significant in the findings was an improvement in teachers' overall satisfaction and the communication between the students.

In the US K-12 education context, Gough et al. (2017) surveyed 44 teachers from Southwest and South-Central Minnesota. The participants generally agreed that flipped classrooms benefitted absent and struggling students. According to the study, the teachers agreed that learning was easier for absent students due to the availability of video lectures. The teachers also perceived that flipped classrooms promoted active learning and personalised learning and improved student-to-teacher interaction and

time for learning.

In Malaysia, 206 English as a second language (ESL) lecturers from four different universities participated in a study on their intention to use flipped learning (Abu Rahman et al., 2021). The study revealed that only social influence was a significant factor influencing lecturers' intention to use flipped learning. Interestingly, performance expectancy, defined as the degree to which the lecturers believed flipped learning would help them achieve academic teaching goals, was a non-significant factor influencing the intention to use flipping learning.

In Abuhmaid's (2020) study, flipped learning model was referred to as a new and unpopular among teachers in Jordan. 126 teachers from six educational governorates in Amman who had implemented flipped learning participated in the study investigating teachers' perception of the impact of flipped learning on students' learning, teachers' role, and challenges facing its implementation. The findings showed that the teachers believed flipped learning potentially improved students' engagement and self-confidence during class time. However, while teachers were able to observe the impact of flipped learning on students' attention, enjoyment, achievement, and behaviour in the classrooms, it was hard to notice its impact on issues such as creativity and higher-order thinking. In that study, the teachers believed that flipped learning enabled them to help struggling students and made their job easier.

Cheng et al. (2020) reviewed 100 highly cited articles related to flipped learning. They discovered that more than half of the research participants were highly educated students (78%), followed by junior high students (8%), elementary school students (5%) and senior high students (4%). Studies on teachers' perceptions on flipped learning are few. Most studies on teachers' perception of flipped learning had pre-service teachers as surrogates instead of actual full-time teachers (Almodaires et al., 2019; Hao & Lee, 2016; Heron & Thompson, 2019; Ozudogru & Aksu, 2020; Yoshida, 2016; Yurtseven et al., 2021). While the authors attempted to examine studies on flipped learning conducted during the Covid-19 pandemic, we found more research on students' perceptions (Hew et al., 2020; Izagirre-Olaizola & Morandeira-Arca, 2020; Karalis & Raikou; 2021; Latorre-Cosculluela et al., 2021; Sosa Díaz et al., 2021; Umar & Ko, 2022). Divjak et al. (2022) conducted a systematic literature review of studies covering online flipped learning approaches in higher education during the pandemic. Among the 205 publications, it was revealed that those who had used flipped learning in face-to-face or blended learning environments continued to use them in online environments more than those who had not used it before. The researcher posted possible questions for future research, such as the effectiveness of flipped learning for various courses and contexts, student engagement, cognitive and emotional aspects, and students' data protection. Collado-Valero et al. (2021) studied the frequency of flipped classroom implementation before and during social distancing by university professors from the Faculty of Education Sciences of the University of Malaga, Spain. The results revealed a significant increase in the frequency of flipped classroom sessions during the Covid-19 pandemic. The data also showed a significant increase in the quantity and variety of didactic resources, mainly those related to flipped learning, with video and audio files. As the number of studies on teachers' perception is few and between, our study focused solely on how lecturers perceived the flipped learning teaching approach.

Proposed research model

To examine lecturers' perception of flipped learning, we propose a research model to measure how student learning is influenced. There were several considerations when designing flipped learning in the classrooms (Gough et al., 2017; Kim, 2017; Koh et al., 2021). We hypothesise that instructional consideration and student behaviour influence how students learn. The proposed research model for the current study is shown in Figure 1. The following are the research questions:

RQ1: Do lecturers perceive positive student behaviour and effective flipped lesson design as predictors of student learning?

RQ2: Do lecturers' flipped classroom experience contribute to better lesson design and student learning?
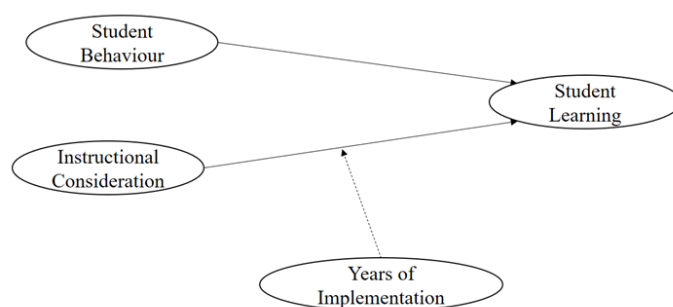
Figure 1. Proposed research framework.

Student behaviour as a predictor of student learning

In this study, we define student behaviour as a student's response to a stimulus that may be an action, person or a learning object in the learning environment. Student behaviour thus is stimulus-driven responses that occur specifically during a lesson or how students are acting during the lesson in response. When Ning and Downing (2011) examined the interrelationship between the student learning experience and study behaviour with 541 students from a university in Hong Kong. Results demonstrated that student perception of the learning experience predicted study behaviour and significantly predicted academic results. The findings were similar to a later study by Tokan and Imakulata (2019). Based on responses from 229 students from the University of Nusa Cendana, Indonesia, the findings revealed that learning behaviour significantly influenced students' learning achievement. Therefore, we hypothesised the following:

H1: Student behaviour has a positive and significant effect on student learning

Instructional consideration as a predictor of student learning

We refer to instructional consideration as the decisions needed in the learning design to support student learning in this study. They include decisions about the lesson content, structure, timing, pedagogical strategies, sequence of learning activities, assessment types, and the nature of the technology used to support learning. In the study by Rienties and Toetenel (2016) with 111,256 Open University UK students, it was found that the learning design was significant in predicting and understanding student learning behaviour and performance in blended and online learning environments. These findings are similar to a later study by Alvarez-Bell et al. (2017) with 111 undergraduates from a public university in North Carolina, US. In that study, it was found that students' perception of the course and perceptions of the extent to which instructional guidance was provided significantly predicted student learning. Therefore, we hypothesised the following:

H2: Instructional consideration has a positive and significant effect on student learning

Flipped learning experience as moderator between instructional consideration and student learning

Past studies have shown that the relationship between teacher efficacy and students' academic achievement depended on the length of teachers' professional experience. Teaching experience is positively associated with student learning (Kim & Seo, 2018; Podolsky et al., 2019). Jahanbani Ghahfarokhi and Mavroudi (2020) interviewed experienced university teaching staff and found that emphasis on discussion among students during flipped learning in-class time was essential, and that was similar to the suggestion from the literature. Sointu et al. (2022), in their study on the key factors leading to the successful implementation of flipped classrooms, identified experienced teaching as the second-best predictor. Tawafak et al. (2020) had included teaching experience as a moderator in their study on how technology-enabled learning improved accreditation performance. The 104-participants study revealed that teacher experience moderated the relationship between e-learning use and student perception. Therefore, we hypothesised the following:

H3: Years of flipped learning implementation have a moderating effect on the relationship between instructional consideration and student learning

Method

An email invitation was sent out to potential participants in Singapore Polytechnic, and 247 responded. All 247 participants completed the online questionnaire. The study's objectives were shared in the invitation email and before the start of the online questionnaire.

Instrumentation

The instrument used in the study included seven items and utilised a six-point Likert scale. The instrument's validity was established by basing the items on an adaptation from the study by Gough et al. (2017). The instrument went through a critique process before it was emailed to the participants. The panel members for the critique included six educators who were not part of the studied population. The panel included four educators who had implemented a campus-wide flipped learning approach and two educational technologists experienced in flipped learning in the classrooms. There were three items each in the exogenous measures, Student Behaviour and Instructional Consideration and one item in the endogenous measure, Student Learning. Regarding the endogenous measure of Student Learning, while a single-item measure might not be typical, it has been used in many past studies in the educational contexts (Atroszko, 2014; Atroszko et al., 2019; Ginns & Barrie, 2004; Leung & Xu, 2013; McDonald et al., 2019). The final survey instrument is shown in Table 1.

Table 1. Survey instrument.

Construct	Item
Student Learning	1. Students learn better through flipped learning (for e.g. better engaged, increased retention of knowledge and ability to apply concepts)
Student Behaviour	2. In flipped learning, students have opportunities to develop a sense of responsibility for their learning.
	3. In flipped learning, students have opportunities to develop better peer relationships through collaborative learning.
	4. In flipped learning, students are better prepared for my lessons.
Instructional Consideration	5. Flipped learning allows me to have increased interaction with students.
	6. Flipped learning allows for more active learning activities.
	7. Flipped learning allows me to provide students the support they require.

Procedures

Given the busy schedules of the lecturers, the online questionnaire was left open for a month to ensure that all lecturers had enough time to complete the survey. The study objectives were shared in an invitation email. Participation in the online questionnaire was voluntary and anonymous.

Results

The descriptive statistics and bivariate correlations for the path analysis are shown in Table 2. All initial screening analyses performed suggested that path analysis was acceptable, indicating that there was no significant violation of assumptions with regard to non-normality, non-linearity, or extreme scores.

Table 2. Descriptive statistics and bivariate correlations between constructs.

Construct	M	SD	1	2	3
1. Student Behaviour	4.328	.983	--	.866**	.845**
2. Instructional Consideration	4.408	1.044		--	.842**
3. Student Learning	4.240	1.089			--

** Significant at the .01 level

Model fit

For the validation, the fit of the research model was examined through confirmatory factor analysis (CFA). The factor structure of the seven-item scale was examined using the popular statistical modelling software IBM SPSS AMOS 28.0. CFA was conducted to estimate the quality of the factor structure and factor loadings by testing the fit between a proposed measurement model and the data statistically (Albright & Park, 2009; Bollen, 1989; Hair et al., 2006; Kline, 2005). CFA was also used to estimate the validity of the constructs and test for the model fitness on the data. Five absolute-fit indices assessed the model fit: (1) Degree of Freedom ($c2/df$), (2) Root Mean Square Error of Approximation (RMSEA; Steiger, 1990), (3) Goodness-of-Fit (GFI), (4) Comparative Fit Index (CFI; Bentler, 1990) and (5) Tucker-Lewis fit index (TLI; Bentler & Bonett, 1980). Table 2 shows the fit indices for the proposed research model and its acceptable fit. The values are above the recommended thresholds, for acceptable model fit (χ^2= 25.057, p < .001; χ^2/df = 2.278; RMSEA = .074; GFI = .971; CFI = .990, TLI = .980). These results indicate that the measurement model achieved a good fit. An internal item consistency test was conducted for the overall model with a Cronbach's Alpha coefficient attaining .925 (Cronbach, 1951).

Table 3. Goodness-of-fit indices for survey instrument.

Measure	Threshold	Values / Fit
χ^2		25.057
df		11
Degree of Freedom (χ^2/df)	< 3 good; < 5 sometimes permissible	2.278
p-value	< 0.05	.0001
RMSEA	< 0.05 (good); 0.05 to 0.10 (moderate); > 0.10 (bad)	.074
GFI	> 0.95	.971
CFI	> 0.95 (great); > 0.90 (traditional); > 0.80 (sometimes permissible)	.990
TLI	> 0.9	.980

Note: Adapted from Hair, J. F., Anderson, R. E., Babin, B. J., & Black, W. C. (2010). Multivariate data analysis: A global perspective (Vol. 7); Kline, R. B. (2005). Methodology in the social sciences; McDonald, R. P., and Ho, M. H. R. (2002). Principles and practice in reporting structural equation analyses. Psychological Methods, 7(1), 64.

The path analysis indicated that student behaviour had a highly significant positive effect on student learning (β = .738; ρ < .001) (Figure 2). Instructional consideration also had a significant and positive effect on student learning (β = .67; ρ < .001). For the interaction analysis between years of flipped learning implementation and instructional consideration predicting student learning, the direct effect of years of implementation on student learning, based on standard scores, was not significant (β = .316; ρ > .05). The direct

effect of instructional consideration on student learning, based on standard scores, was significant (β = .793; ρ < .001). The interaction between instructional consideration and years of implementation predicting student learning based on standard scores was not significant (β = -.209; ρ > .005). Hence, the moderating effect of years of implementation on the relationship between instructional consideration and student learning was non-significant. The test results for the variables are summarised in Table 4.
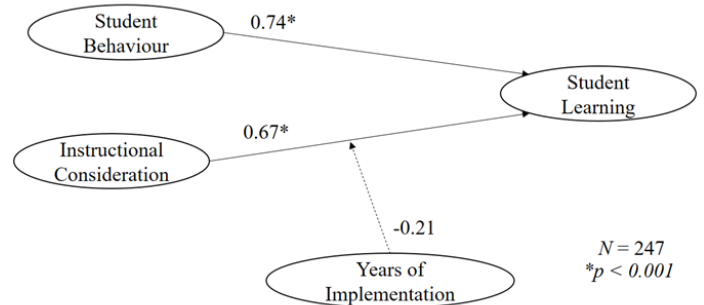
Figure 2: Path analysis.

Table 4. Unstandardised and standardised factor loadings.

Hypothesis	Path	Unstandardised Estimate	Standardised Estimate	S.E.	C.R.	P	Result
H1	Student Behaviour → Student Learning	.544	.738	.059	9.156	***	Significant
H2	Instructional Consideration → Student Learning	.595	.674	.074	8.033	***	Significant
H3	Instructional Consideration (Z-Score) → Student Learning (Z-score)	.793	.793	.052	15.140	***	
	Years (Z-score) → Student Learning (Z-score)	.233	.233	.232	1.003	.316	Not Significant
	Instructional Consideration x Years (Z-score) → Student Learning (Z-score)	-.046	-.209	-.905	.366	.366	

Discussion

The results from CFA indicated that the proposed research model has a good model fit. Although Gough et al. (2017)'s adapted instrument was designed to examine K-12 teacher perceptions regarding the flipped classroom model, it was robust enough to be adapted for use in the higher education context. What was added to the current study was the inclusion of the moderation variable, experience in flipped learning. We attempted to examine if lecturers' experience in flipped learning implementation significantly affected their student learning.

This study examines if lecturers perceive positive student behaviour and effective flipped lesson design as predictors of student learning. The path analysis results showed that

student behaviour and instructional consideration had a significant positive effect on student learning. Flipped learning approach requires students to take a greater responsibility during pre-class activities, such as watching a video or studying lecture notes beforehand. As such, student behaviour becomes a vital factor in the successful lesson delivery that leads to student learning. The findings are similar to those reported by Ning and Downing (2011) and Tokan and Imakulata (2019). However, Bond (2020) posited that the flipped learning approach is not the immediate solution to learning as students display different forms of behavioural disengagement. Flipped learning would not make students who did not do homework suddenly start doing homework. Some students did not perceive videos prepared for the flipped classroom as having the same level of importance as other forms of homework, while others skipped through parts of videos. Bond (2020) further suggested that having an initial adjustment period was needed for students to become accustomed to the flipped learning approach. For instance, students needed an initial period of adjustment on getting started to learn independently and as part of a group.

Flipped classroom lessons can be designed in various ways. The findings showed that instructional consideration in how lecturers designed their flipped learning lessons impacted how students learn. This finding is in line with past studies that lesson design significantly affected student learning (Alvarez-Bell et al., 2017; Rienties & Toetenel, 2016). Blau and Shamir-Inbal (2017) suggested a new design model of flipped learning. They discussed the importance of including technologies in promoting higher-order thinking skills as presented in Bloom's taxonomy. The newly designed model emphasised the vital role of technology in supporting successful learning and functioning in the digital era. In addition, the new design model places a particular emphasis on technology-enhanced embedded assessment, combining individual reflection with peer feedback, collaboration, and co-creation of course content and of learning outcomes by students in order to develop regulation strategies in both individual learning (i.e. self-regulation) and teamwork (i.e., co-regulation and shared regulation).

While we attempted to investigate if lecturers' experience in flipped classroom implementation significantly affected student learning, the moderation analysis results showed otherwise. Like the study findings by Leis and Brown (2016), after comparing a teacher with flipped learning experience and another without, learning outcomes in both student groups improved to similar degrees. The researchers concluded that regardless of the teacher's experience, flipped learning was an ideal approach to increase the possible amount of individual coaching in the classroom, bringing about more efficient learning.

Conclusions and recommendations

While flipped learning has grown in popularity in higher education, research is still needed to support educators transitioning their teaching to a flipped learning approach. Research has indicated that learner outcomes will improve if instructors in higher education maximise students'

learning experiences by using the implementation data to drive those decisions and effectively shift student accountability for learning using flipped methods (Brewer & Movahedazarhouligh, 2018). Such data could be collected from flipped classrooms to improve instruction. For instance, more learning analytics data had been collected to help give insights into better flipped learning implementation in the classroom (Jovanović et al., 2017; Lin & Hwang, 2018; Montgomery et al., 2019; Sun et al., 2019).

While the adapted instrument from Gough et al. (2017) is adept for this current study, the targeted participants were K1-12 schoolteachers. Most flipped learning studies were based on primary and secondary education (Lindeiner-Stráský et al., 2020; O'Flaherty & Phillips, 2015). A limitation one may argue is that there is a difference in the student demographics where the study is based (i.e. flipped learning for 17-19 years old). The current study was conducted in a higher education institution where the pedagogical approaches and expectations differed from the K1-12 context. The recommendation for future study would be to extend the current modest research model of four constructs to include additional factors that potentially influence student learning in flipped classrooms.

Another limitation is that this study was conducted during the period when educational institutions were rapidly changing their methods of lesson delivery amid the Covid-19 pandemic. The data collected were from lecturers conducting flipped classroom lessons for more than a year. While the study revealed insightful findings, no data was collected prior to Covid-19 for comparison. The current study was also only conducted within an educational institution in Singapore and would benefit by expanding its participant base to other institutes of higher learning in other countries. Also, the current quantitative study would benefit by adding a qualitative aspect by conducting interviews with lecturers to get their opinions and views on flipped learning.

The current study established that student behaviour is an essential element in successfully implementing flipped learning classrooms. Many earlier research proposals examined self-regulation in flipped learning in the literature (Leong et al., 2019; Shyr & Chen, 2018; Sun et al., 2017; Zainuddin & Perera, 2018). One of the critical directions for future flipped learning research is to dissect student behaviour into self-regulated factors further. Adding new variables like self-regulation or self-directed learning to the existing adapted model can further enrich current flipped learning studies and provide a more in-depth understanding of how learners perceive and participate in flipped learning classrooms.

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The role of psychological safety in online tourism and hospitality learning

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Article Info

Abstract

This study proposes and tests a conceptual framework to examine how tourism and hospitality students' psychological safety and personal resourcefulness in online learning reach their tourism and hospitality threshold learning outcomes. This research develops a conceptual framework integrating the conservation of resources and social information processing theories and the findings of a qualitative study through a sequential mixed-methods approach. Subsequently, the model is tested with online survey data using a structural equation modelling technique. The results suggest that, for psychological safety, students' computer self-efficacy and peer collaboration significantly affect overall students' perceived graduate outcomes, whereas lecturer support has no significant impact. Further analysis of the results, along with theoretical and practical implications, are likewise discussed.

Introduction

Over the past two and half years, tourism and hospitality higher education providers have been continually challenged to adapt to the rapidly changing environmental conditions triggered by the COVID-19 pandemic. The initially rushed online teaching and learning approaches have aggravated students' learning endurance and their motivation to engage in their online learning to enter the tourism and hospitality industry upon graduation. As students move from fully face-to-face learning to online learning during highly volatile, uncertain, and stressful times, students' personal resourcefulness – the ability to flexibly face challenges and feel psychologically safe to speak up without fear in the socially constructed learning context, is important to understand. An individual's personal resourcefulness refers to the ability to deal with challenging situations (Hobfoll, 2002) and the Conservation of Resources theory (COR) (Hobfoll, 1989) suggests that individuals are naturally driven to protect, acquire and use their resources (e.g., emotions, mindsets, energies) to manage life's demands to preserve their well-being. However, it cannot be automatically assumed that students can effectively manage their resources in light of different learning conditions while also managing other life activities continually influenced by the evolving Covid-19 uncertainties. Particularly, the switch to online learning has been found to lead to a higher cognitive load, affecting students' stress levels and their capacity to adapt to new ways of learning (Oyedotun, 2020). According to COR, when individuals encounter stressful situations, they naturally strive to preserve and attain new resources (e.g., preserve personal energies, use their existing skills, reach out for social support and/or material goods) (Hobfoll, 2002). The COR theory suggests a framework in which important resources specific to the online learning context could be identified to support the development of psychological safety and also the threshold development of the tourism and hospitality graduate outcomes as students take online courses.

In addition, online learning requires the use of technology to enable teaching and learning engagement, which requires methodological changes to enable effective communication and interaction in the online course among and between students and lecturers (Howlett et al., 2009). Zainuddin and Halili (2016) stressed that a learning strategy is needed to support learning in the technology-enabled learning context, and students' motivation, interaction, and engagement must be incorporated into that process. Therefore, students' learning needs should be supported through the use of suitable digital tools to enable students to effectively interact with the learning content and their peers and lecturers. However, the sudden transition to an online learning environment could have elevated students' psychological states and negated their learning efficacy. Waites et al. (2020) stressed that change and uncertainty are typically known to ignite feelings of worries, concern, and anxiety, thus, psychological safety needs to be cultivated in the learning environments to support students' agency to engage with others in their learning (Schein & Bennis, 1965; Wanless, 2016). Various researchers in the field of organizational development have posited that learning performance can be supported by the feeling of being psychologically safe (Edmondson et al., 2016; Edmondson & Lei, 2014; Kahn, 1990). Although these findings confirmed a route of the relationship from psychological safety to learning performance in the organizational context, the path has not been investigated in the context of online learning, and tourism and hospitality students perceived graduate outcomes. Especially it is not known yet whether the newly crafted online learning experiences progressed or stagnated the tourism and hospitality students' ability to reach the tourism and hospitality domain thresholds of problem-solving, collaboration, service and experience design, interdisciplinary inquiry, and professional responsibility (Whitelaw et al., 2015) and giving students the confidence to secure employment and achieve success in the industry in the post-pandemic era. To better understand what and how online learning conditions play a role in influencing students' resourcefulness that promotes learning orientation and graduate outcomes, it is necessary to explore the antecedents of students' psychological safety in the online learning higher education context.

Educational literature highlights the importance of social interactions, such as student-to-student and teacher-to-student interactions, wherein online learning interactions support learning engagement (Anderson, 2011; Picciano, 2017). Lecturers have an important role in influencing the online learning conditions and interactions that could positively or negatively impact students' emotional, social and cognitive processes, therefore prime students for learning (Cleveland-Innes & Campbell, 2012). As educational researchers continue to shed light on the impact of various levels of student-to-student and teacher-to-student interactions and learning outcomes, integration of the social with psychologically-cognitive conditions is warranted and to be explored in online education. Thus, this study aims to (1) identify students' online learning resources influencing students' psychological safety, and (2) examine the relationship between psychological safety in online learning and students' perceived attainment in tourism and hospitality graduate outcomes. This study expands the online learning literature by delineating the linking between the social and psychologically-cognitive underlying processes through which educators can nurture students' learning agency and learning performance orientation, enabling them to reach the program learning thresholds of graduate outcomes.

Literature review

Tourism and hospitality graduate outcomes

Tourism and hospitality higher education institutions globally are increasingly developing tourism and hospitality standards as the means of quality assurance that graduates of bachelor's and master's programs meet the needs of the tourism and hospitality industries (Dale & L'Espoir Decosta, 2017). The publication of *Tourism, Hospitality and Events Learning and Teaching Academic Standards* by Whitelaw et al., 2015, derived from a project of an Office for Learning and Teaching in Australia, now guides Australian academics. The project identified five tourism, hospitality, and events (THE) domains, which graduates are expected to demonstrate upon graduation, including *problem-*

solving, collaboration, service and experience design, interdisciplinary inquiry, and professional responsibility. This project suggested incorporating these domains into units/subjects in undergraduate and postgraduate tourism and hospitality programs (Gross et al., 2017). While the relevant knowledge and skills specific to each domain are to be fostered through suitable teaching and learning content and practices, tourism and hospitality graduates are also expected to demonstrate various personal qualities, such as traits, attitude, and self-concept that will contribute to their careers and advancements within the broader tourism industry (Harvey, 2000).

To help students gain work-related confidence while studying, it is important to understand students' perspectives on whether tourism and hospitality units/subjects (e.g., face-to-face, online and blended) contribute to the development of knowledge and skills leading to the evidence of the specified five domains. This is because students' self-awareness of their skills and capabilities can influence their mindsets and career decisions, such as where to work within the industry and whether and when to apply for promotion. This can be explained through Bandura's self-efficacy concept, defined as the "beliefs one has in own capabilities to organize and execute the sources of action to produce given attainments", where self-efficacy acts as a motivation for students' behavior like accepting a job and type of job an individual takes (Bandura, 1997, p. 3; Betz et al., 2005). In education, self-efficacy was found as the underpinning mechanism between academic achievement and career preparation behavior (Choi & Kim, 2013). Kahraman and Alrawadieh (2021) found that students' perceived education quality significantly influenced their intention to join the tourism and hospitality industry. The authors suggested that the more the students perceive their education of higher quality, the more likely they will develop a positive attitude to enter the industry upon graduation.

However, the COVID-19 pandemic disrupted the higher education teaching and learning approaches by transitioning to online learning, and many higher education institutions have progressed their online teaching and learning approaches since then. Recent research has demonstrated that social media use as an alternative online learning approach fosters undergraduate students' engagement and knowledge acquisition during the COVID-19 pandemic (Dutta, 2020). Furthermore, researchers suggested supporting students' e-learning readiness skills to enhance their hybrid/online learning ability in the post-COVID-19 era (Fang & Choi, 2022; Tang et al., 2021). As higher education institutions intend to continue offering courses online in the post-pandemic era, the need is even more evident to inform current and future online course (re)designs. However, little is known about how the changes from face-to-face teaching and learning to fully online contributed to students' growth in the tourism and hospitality knowledge and skills underpinned by the five domains. The changed teaching and learning approaches most likely influenced students' perceptions of whether their knowledge and skills within the five domains have evolved through online learning. To help shape the quality of future online tourism and hospitality higher education, it is essential to understand what key factors can support students' mindset and autonomy to

engage in active development and threshold achievement of the graduate outcomes underpinned by the five THE domains.

The Tourism, Hospitality and Events Learning and Teaching Academic Standards project (Whitelaw et al., 2015) suggested a competency-based approach that focuses on the student's ability to demonstrate the knowledge and skills linked to each of the five threshold outcomes. While learning outcomes are traditionally assessed through subject/unit assessments, studies are yet to ascertain the respective criteria for each domain equivalent to the higher education grading system at undergraduate and postgraduate levels. Therefore, through the competency-based approach, the five domains of knowledge and skills can be viewed as threshold competencies that the students should be able to apply in the tourism and hospitality workplace context upon graduation. As pointed out by Jabeen et al. (2021), this type of employability could be viewed subjectively, particularly when individuals' perspectives are needed to understand potential weaknesses. For example, self-perception and belief in own ability have been found to influence confidence to find employment (Rothwell & Arnold, 2007) or to move between jobs and workplaces (De Cuyper & De Witte, 2011). Frawley et al. (2019) stressed that higher education institutions should place more focus on employability, as it is among the students' top considerations when deciding where to study. Thus, this study seeks to assess the students' perceptions of whether the novel online learning approaches derived from the COVID-19 pandemic contributed to their perceptions of evolved employability through the lens of the five THE domains – viewed as the progress made toward the threshold levels of tourism and hospitality graduate outcomes.

Psychological safety

Existing research finds that psychological safety is an important element that enables learning and change, especially in environments where human interactions play a central role, such as healthcare and education (Edmondson et al., 2016); and in a world that is rapidly volatile and uncertain (Bowman, 2019). Psychological safety is described as the degree to which an individual perceives "the consequences of taking interpersonal risks in a particular context", like speaking up (Edmondson & Lei, 2014, p. 24). According to Kahn (1990), the perceived level of psychological safety influences how an individual engages in a given activity – thus, in the context of this study, how students engage in their online classes defined by various types and strengths of relationships between them and other students and the subject lecturers. While psychological safety has been studied mostly in organizational contexts, a handful of researchers have started to explore the construct in health education (e.g., Edmondson et al., 2016; Roh et al., 2021; Tsuei et al., 2019). However, it is not yet known whether the courses of the COVID-19 era in the online learning context supported students' psychological safety and the progress toward reaching the graduate outcome thresholds.

Newman et al.'s (2017) systemic literature review of psychological safety in organizations uncovered variables

like supportive organizational practices, leadership behaviors, relationship networks, and individual and team characteristics that influence organizational outcomes. In the field of online education, 'support, behavioral and relational variables' could potentially affect student learning performance through their perceived psychological safety and, in turn, influence the achievement of the graduate outcomes. Tsuei et al. (2019) found that a sample of medical students perceived psychological safety in a face-to-face support course as feeling not being judged, having supportive relationships with peers and mentors, and being in a state free from worries. Edmondson et al. (2016) found that psychological safety varies significantly between educational organizations (management-educator context; non-classroom context) and across groups within the health care sector. Thus, the study of online learning conditions impacting students' perceptions of psychological safety in tourism and hospitality higher education could uncover students' levels of engagement in online learning and the development of the knowledge and skills expected by tourism and hospitality employers. Therefore, we propose that:

> *H1: Students' perceived psychological safety is positively associated with growth in graduate outcomes.*

Social Information Processing (SIP) theory

While it is not clear yet how social support, as a resource, can enable one's resourcefulness when looking through the COR lens, this study further looks through the Social Information Processing theory (SIP; Salancik & Pfeffer, 1978) to understand the underpinning mechanism, specifically within the online learning context. According to Zalesny and Ford (1990), SIP theory builds on a person's social environment and information processing capabilities. The theory posits that individuals decide upon their behavior based on the clues observed from the immediate social environment (e.g., online class). Fulk et al. (1987) highlighted that social clues are also observed as individuals engage in the communication exchange in the social environment. Individual internalization then leads to an awareness of needs and perceptions (Bhave et al., 2010). Thus, in the online learning context, students continually receive social clues from their online class – their peers and lecturers – which may lead to the decisions of whether one would invest in their personal resources to interact and engage with their peers and seek support from lecturers for learning gains or not, as they may find some of these resources potentially energy-draining.

Jabeen et al. (2021) suggest that the social context influences one's perception of whether a given resource is valuable. Halbesleben et al. (2014) pointed out that having access to a greater range or sum of resources does not guarantee successful outcomes. Hence, it is here where SIP can strengthen COR and help establish what resources are more helpful to people in a given context (Jabeen et al., 2021). Therefore, in this study, we seek to uncover whether peer collaboration and lecturer support affect the formation of psychological safety and lead to evolved graduate outcomes through online education. The following section details the development of hypotheses specific to each study area.

Peer collaboration

To enhance students' learning achievement, interactions with peers within the learning environment form an essential element (Bird, 2007; Pietarinen et al., 2014; Reschly et al., 2020). Chen and Jang (2010) highlighted that peer support could function as a fuel that learners gain from social interactions. Guided by COR, social interactions can thus be seen as triggers of one's autonomy and collaborative efforts and outcomes, signifying personal resourcefulness. If students perceive themselves as having the right skills for a given learning task and have the agency to control their actions in social situations, such as peer learning, they are likely to exert more self-determination and achieve better outcomes through their enhanced psychological well-being. Collaborative learning tasks and approaches have proved effective in supporting students' cognitive understanding and ability by applying learned concepts to practical situations (Huang, 2020; Patiar et al., 2020). Specifically, in the online learning process, the students' ability to use online learning tools to engage in social interactions contributes to an interconnected sense of being and greater knowledge acquisition through the co-construction of knowledge (Eryilmaz et al., 2013). Further, Altınay (2017) stated that a supportive and collaborative online learning environment could foster personal learning and professional development. Within the online learning process, peer support enriches interactions, which can ignite the feeling of psychological safety, further triggering positive learning behavior, such as expressing thoughts and overall sharing of ideas and knowledge (Zhang et al., 2010).

Thus, we propose that the extent to which students work collectively with their peers impacts students' feeling of psychological safety, which in turn influences their agency to accomplish the learning outcomes:

> *H2: Peer collaboration has a positive effect on psychological safety.*

Lecturer support

Organizational research has shown that more public, identity-forming, or less clear moments can promote psychologically unsafe feelings (Nembhard & Edmondson, 2006), impacting learning performance. Building on this in the online learning context, lecturer support is required in online learning to help present and deliver suitable online learning activities, challenges, and assessments in a psychologically safe manner, to prolong the student learning experience and contribute to better learning outcomes. When students feel psychologically safe, reduced defensiveness and increased open-mindedness may ignite better management of anxiety levels, thus, preparing the mind for optimized learning. Csikszentmihalyi (2014) explained how optimized learning performance is attributed to balancing skills and challenge levels. In line with Csikszentmihalyi's (2014) conceptualization of flow, a concept that refers to a state of optimized performance when individuals believe they have sufficient skills to perform a given task or challenge (e.g.,

learn in the social online class, solve a collaborative problem challenge creatively, etc.), learning can be optimized, and a better performance achieved.

Previous studies found that lecturer support plays an important role in students' learning outcomes (Bowman, 2019; Hess & Ludwig, 2018; Liu et al., 2018). As educators in the higher education online learning environment move more towards socially constructed and interactive teaching and learning, the present study argues that educators need to pay close attention to shaping the right online learning conditions in this process (e.g., peer-to-peer and peer-lecturer interactions). Hence, students feel psychologically safe to ask questions, discuss various topics with their peers, and provide feedback to promote deep learning. Bowman (2019) stated that lecturers, as the enablers, need to make the learning environment safe for students to express their thoughts freely. Bowman (2019) further suggested that in the social learning context, lecturers can help build trusting peer relationships and effective learning experiences through emotional and social intelligence. Thus, this study focused on the extent to which lecturers used online learning tools to provide academic support, such as explaining what is required to do in online learning, communicating with students, providing assistance and tailoring the learning activities:

> H3: Lecturer support has a positive effect on psychological safety.

This study links the tourism and hospitality threshold domains (graduate outcomes) with students' subjective evaluations of psychological safety, peer collaboration, and lecturer support.

Methodology

A three-phase mixed triangulation approach was adopted, combining qualitative and quantitative data sources (i.e., interviews, surveys). Triangulation allows scholars to obtain a comprehensive understanding of phenomena using different methods (Creswell & Tashakkori, 2007) and verify consistency in those findings (Gibson, 2017). The complex nature of online learning factors that may potentially affect students' psychological safety in online learning motivated us to conduct an initial qualitative phase – Study 1, which uses semi-structured interviews to confirm the proposed constructs and identify the potential underlying factors that students perceived leading to feeling psychologically safe in studying online. This exploratory stage generated a conceptual framework to be examined in the following quantitative phase. Study 2 analyzes quantitative survey data through structural equation modeling (SEM) to test the proposed conceptual model. Study 3 involves follow-up semi-structured interviews to enhance the understanding of the quantitative study results. Both the qualitative and quantitative phases of the study applied a convenience sampling approach to recruit undergraduate hospitality and tourism management students who experienced online learning.

Study 1—Interviews and results

To obtain qualitative information, semi-structured individual online interviews were performed with open-ended questions (e.g., "What were the essential resources that helped you feel psychologically safe in the online class?"). A total of seven interviewees (three females and four males; five domestic and two international students) were recruited through a snowball sampling technique. Interviews were conducted in August 2020 with undergraduate tourism and hospitality management students having online learning experience in an Australian university. Participants were asked about their online learning experience and the key resources valued to feel psychologically safe in an online learning class. The interviews lasted between 30 and 45 minutes, and the responses were analyzed through content analysis. Based on the results and the researcher's prior understanding of the subject matter, the factors (i.e., peer collaboration and lecturer support) highlighted in previous research were confirmed. In addition, students' capabilities to use a computer and the relevant programs in their online learning process appeared to be driving the development of students' perceived psychological safety.

> When it comes to online learning, it is important to be in a comfortable learning environment – for me, I know how to use Zoom, Padlet... so I felt very comfortable. (Participant 6, Male)

> I know how to hide my video and mute myself, participating in online classes without revealing my personal details such as name and face to "strangers" aka other students whom I have never met in real life – made me no hesitation to join the classes. (Participant 3, Female)

Previous online learning research showed that computer skills affect online learning performance (Peng et al., 2006), suggesting that self-efficacy in technology could be an important personal resource for students learning online. The positive relationship between self-efficacy and technology use in online learning has been confirmed by Sun and Chen (2016) and Corry and Stalla (2018). Self-efficacy has been found to influence student choices of "activities, effort and persistence across a wide range of human functioning" (Artino, 2012, p. 84). The higher the level of student self-efficacy, the better their effort and perseverance when faced with challenging tasks (Bandura, 2001). However, no prior COR research has yet established whether computer self-efficacy is an important resource in the context of higher education online learning. Therefore, we integrated the results of the previous studies and our qualitative findings into a conceptual model of this study, as shown in Figure. 1. This also led to an additional hypothesis – H4: Computer self-efficacy has a positive effect on psychological safety.

Study 2—Online survey

Measurement instrument. The measurement items for the constructs were adapted from the literature, but some items' wordings were modified to ensure study context and
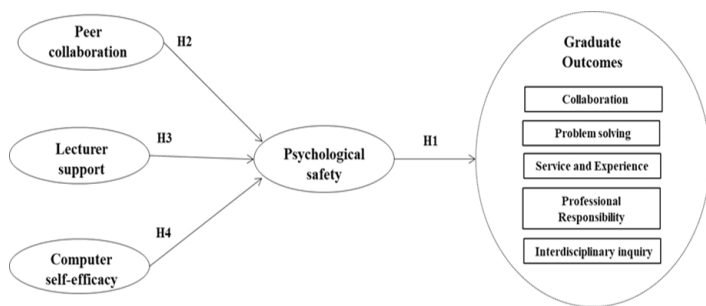
Figure 1. Proposed conceptual model.

word clarity. Measures for peer collaboration (three items) and lecturer support (four items) were adapted from Krause and Coates (2008). Computer self-efficacy was measured using three items from Hung et al. (2010). The scale measuring psychological safety was adapted from Schepers et al. (2008) (four items). Those items were measured using a 5-point Likert scale (from 1 = strongly disagree to 5 = strongly agree). Five items capturing perceived tourism and hospitality evolved graduate outcomes were adapted from the Office of Learning and Teaching (2016), also measured on the 5-point Likert scale (from 1 = not at all improved to 5 = very improved). A total of 19 measurement items were pre-, and pilot-tested before the main study and did not identify any major issues. Assessment of internal consistency was achieved via Cronbach's alpha of .921, exceeding the recommended threshold of .70 (Nunnally, 1994). The Kaiser-Meyer-Olkin (KMO) value was .918, above the recommended value of .80 (Hair et al., 2014), indicating good scale reliability and validity.

Data collection and analysis. The developed survey instrument for this study was posted on Google forms as an online questionnaire, including demographic questions, and distributed for five weeks in October and November 2020. An invitation email was sent to undergraduate hospitality and tourism management students who experienced online learning at one Australian university. A total number of 196 data were collected for analysis. The sample size met the recommended 1:10 ratio for the number of responses to the number of items (Hair et al., 2014). A descriptive statistical analysis was conducted to explore the sample distribution and characteristics using SPSS 24. By using a two-step SEM approach in AMOS 24 (Byrne, 2016), the data were analyzed to test the proposed relationships in the research model.

Study 3 – Follow-up interviews

This phase was performed to obtain further insights into the Study 2 results. In particular, follow-up semi-structured interviews assisted the researchers in exploring the inconsistent results from the quantitative study and previous research in an in-depth manner. The same participant recruitment strategy was used as in Study 1. All interviewees were undergraduate tourism and hospitality management students with a prior online learning experience in an Australian university and no prior participation in this research. A total of eight interviews (four females and four males; four domestic and four international students) were asked several open-ended questions based on the

quantitative study results (e.g., "How valuable was support from your lecturer to feel safe to learn in an online class?") for approximately 15 to 20 minutes.

Results

The respondents' demographics are reported in Table 1. The female dominance in the sample (71.43%) reflects the general profile of hospitality and tourism students in Australia. The majority were domestic students (58.7 %), with 41.3% being international students.

Table 1. Profile of respondents.

	Category	Frequency	%
Gender	Male	56	28.57
	Female	140	71.43
Age	18-24	121	61.73
	25-35	45	22.95
	Over 35	30	15.32
Year of study	1st year	116	59.18
	2nd year	45	22.96
	3rd year	25	12.76
	4th year	10	5.10
Domestic vs International	Domestic	115	58.67
	International	81	41.33

Measurement model

A confirmatory factor analysis on the overall sample data (N = 196) was employed to assess the measurement model. The results indicated that the proposed model has an acceptable fit, with $\chi2$ = 285.702, *df* =142, $\chi2/df$ = 2.012, *p* < .00, CFI = .95, TLI = .94, NFI = .91, RMSEA = .072, SRMR = .492. All factors loaded significantly (p < 0.01) between .64 and .93, which were above 2.57, supporting for convergent validity (Netemeyer et al., 2003; Hair et al., 2014). The composite reliabilities and the average variance extracted (AVE) scores of the five dimensions were above .70 and .50, respectively, indicating good evidence of construct reliability (Hair et al., 2014). For discriminant validity, the AVE value for each dimension was greater than the correlations among them (Fornell & Larcker, 1981), as shown in Table 2.

Table 2. Validity analysis results.

Construct	Mean	SD	CR	AVE	MSV	PS	CS	PC	LS	GO
PS	3.48	1.05	.89	.66	.30	**.82**				
CS	3.85	.989	.81	.58	.39	.54	**.76**			
PC	3.45	1.25	.90	.74	.31	.51	.53	**.86**		
LS	3.83	1.03	.92	.74	.40	.37	.52	.56	**.86**	
GO	3.50	1.11	.94	.77	.40	.54	.63	.54	.63	**.88**

Note. SD = standard deviation; CR = composite reliability; MSV= maximum shared variance; CS = computer self-efficacy; PC = peer collaboration; LS = lecturer support; GO = graduate outcomes.

Structural model

The structural model shows a good fit with $\chi2$ = 359.267, *df* =145, $\chi2/df$ = 2.478, *p* < .00, CFI = .93, TLI = .93, NFI = .91, RMSEA = .082, SRMR = .492. The structural path coefficients indicate that three paths were supported, but one path (i.e., lecturer support → psychological safety) was not supported. Table 3 presents the hypotheses test results.

Table 3. Structural model analysis results.

Hypothesis	Path	Path Coefficient	Critical Ratio	Result
H1	PS → GO	.22	2.96*	Supported
H2	PC → PS	.31	3.33***	Supported
H3	LS → PS	.04	.47 (.64)	Not Supported
H4	CS → PS	.38	3.72***	Supported

Note. PS = psychological safety; GO = graduate outcomes; PC = peer collaboration; LS = lecturer support; CS = computer self-efficacy.
*** $p < .001$, * $p < .05$

Follow-up interviews

To further understand Study 2 quantitative results, we conducted follow-up interviews. There is clear evidence of the positive relationship between peer collaboration and psychological safety, as provided in the following comments:

> We talked and shared our situations, they (classmates) understood what I had been through. Because of them, I could show myself in the (online) class. Definitely, their support was a gain (Participant 6, Male).

> People under the same condition, we had the same goals to achieve and supported to each other which made me feel comfortable during online learning (Participant 8, Female).

Related to the non-significant relationship between lecturer support and psychological safety, although students acknowledged the lecturer's support was valuable to feel psychologically safe to learn online, it became apparent that students longed for emotional support and not just instrumental support.

> A warm and sensible reactions from the lecturer set the secure and non-fearful learning space, for sure (Participant 7, Female).

> When I talked to [the lecturer], he encouraged me to continue studying and helped me having confidence in class (Participant 1, Male).

Discussion and conclusions

Based on the COR and SIP theories and online learning literature, this study identified and examined the key personal and social resources influencing students' psychological safety in online learning and further investigated the relationship between students' psychological safety and perceived growth toward the tourism and hospitality graduate outcome thresholds. Findings were derived from a sequential mixed-methods approach – initial qualitative, quantitative, and follow-up qualitative studies. First, Study 1 showed that the factors of 'peer collaboration' and 'lecturer support' identified in the online learning literature are also important and significant from the students' standpoint to feel psychologically safe when learning online. In addition, the interviews uncovered that students' capability to use a computer and related digital tools played an important part in feeling psychologically safe in the online learning context.

This is in agreement with Eryilmaz et al.'s (2013) findings that students' confidence in using online learning tools in the learning process contributes to greater social engagement and knowledge construction. We concur that the COVID-19 pandemic drove the desire for social connectivity and support in the learning environment to relieve the stress associated with the sudden and rapid change within the learning context.

Computer self-efficacy, on the other hand, provided students with a sense of control, enabling them to manage their engagement with the learning content, their peers, and also the instructors. This aligns with Zhang et al.'s (2010) findings that peer support enriches interactions, which can boost psychological safety, and Choi and Kim's (2013) suggestion that self-efficacy is the underpinning mechanism between academic achievement and career preparation behavior. Overall, these results contributed to the development of a theoretical framework in which the three resources – peer collaboration, lecturer support, and computer self-efficacy – were hypothesized to have a positive impact on students' perceived psychological safety.

Study 2 further quantitatively investigated the relationship between psychological safety and students' perceived growth in tourism and hospitality graduate outcomes. The results underscore the importance of having an online learning environment where students feel free to speak up, ask questions, and give and receive feedback without fearing the consequences of taking interpersonal risks. Psychological safety significantly and positively impacted students' perceived learning growth. We believe the higher level of perceived psychological safety contributed to students' deeper, more meaningful engagement with the content and peers, which enhanced their perceived learning outcomes. This result is in accordance with learning behaviors in organizational studies reported by Carmeli (2007) and academic performance in a face-to-face learning context (Soares & Lopes, 2021). However, to our surprise, the study's results also showed that lecturer support did not form a significant indicator of students' perceived psychological safety in online learning.

To further explore the inconsistent findings between Study 1 and 2, Study 3 was conducted to understand the students' perspectives on the lecturer's role in the online learning context. These findings uncovered that students perceived the lecturer's support as an important resource in their learning process, however, such support needs to be attuned to their feelings rather than being fully transactional (e.g., focused on the technical aspects of learning performance). This finding appears consistent with previous work (Edmondson, 2004), suggesting that superiors should practice empathy to be perceived as accessible and approachable in interpersonal interactions in the organizational context. We, therefore, suggest that these behaviors are also important in the teaching and learning process when students take online courses.

Implications

This study extends the COR theory in the educational context by showing the underlying mechanism that transmits the impact of students' personal and social resources in the online learning process. Personal (computer self-efficacy) and social (peer support) resources are important for students' perceived psychological safety in online learning. These resources are the key resources that boost students' psychological safety, enabling them to reach a psychological state that strengthens their learning focus and agency, enabling their (perceived) learning growth. Therefore, under the COR and SIP theories, the delineated linking between the social and psychologically-cognitive underlying processes in students' online learning is a contribution to psychological safety in online education and learning outcomes (threshold learning/ graduate outcomes).

This study adds to the psychological safety literature as it provides an understanding of the key students' perceived resources, making them feel safe in online learning. This is also the first study that draws on COR and SIP theories in delineating personal and social resources for psychological safety in online education – contributing to the stream of literature on learning outcomes and graduate competencies, explaining how psychological safety is linked with students' perceived improvement in graduate outcomes. The effect of psychological safety on students' graduate outcomes suggests an important source of students' resourcefulness, where a greater ability to control and manage emotional and cognitive resources improves students' ability to focus on their career goals. Upon graduation, students' capacity to reach the industry-related threshold learning outcomes is an important indicator for higher education providers to meet the quality education standards (Office of Learning and Teaching, 2016). However, also crucial for meeting the industry expectations as most employers look for graduates with 21st century skills, including collaboration, problem-solving, creativity, professional responsibility, and other capabilities (Office of Learning and Teaching, 2016).

In practical terms, to support students' learning focus and agency in online tourism and hospitality courses, educators should help foster psychological safety when designing and teaching online courses. From a course design perspective, educators can adopt various multimedia applications that may reduce potential interpersonal risks, such as identifying threats that students may perceive at a given moment (e.g., at the commencement of an online course, when interacting with strangers on an online course, when asked to discuss and provide feedback in the social context and other). Miyazoe and Anderson (2011) identified anonymity as a pedagogical means within the forum and blog-based discussions, contributing to greater student confidence and engagement. Educators can also encourage students to grow their psychological safety by including collaborative problem-solving activities and assessments. Ke and Xie (2009) found that collaborative learning as a form of online pedagogy can increase deeper learning, thus, the construction of knowledge. This study's findings confirm that peer interaction has a significant effect on feeling psychologically safe. Educators can also support students' academic self-efficacy through online teaching approaches that promote student learning engagement and performance. Bandura and others suggest that academic motivation can be reinforced through not only the facilitation of knowledge and skills development but also the development of confidence (e.g., Artino, 2012; Bandura, 1997; Multon et al., 1991). This study's qualitative findings suggested that the lecturer's support should be not only transactional (e.g., focused on the teaching and learning instruction) but also empathetic to support students emotionally.

In the teaching area, research starts to show that positive relationships between students and educators may increase students' perception of psychological safety. While relationship-building might be harder to develop in the online learning environment, video conferencing tools have begun to show that visual (cameras on/ off option), audio, and text digital applications used in different ways, times, and contexts can support online presence among peers (Conrad & Donaldson, 2011), students' perceived learning (Richardson et al., 2017), and student interest (Hew et al., 2020).

The findings of this study can also inform the development of course evaluation surveys. Evaluation of online teaching and learning practices is an important mechanism for continually improving education. Building on research evidence about what fosters and limits student learning in the online learning context can contribute to teaching and learning strategies that better support student achievement of program learning outcomes and graduate attributes. By undertaking evaluations that assess students' perceptions of psychological safety, computer self-efficacy, and peer collaboration, educators can design more effective learning practices and assessments that better support the student online learning experience, thereby improving student learning performance.

Limitations and future research

This study offers a significant contribution to the literature on the COR theory, online education, and psychological safety, but there are some limitations related to data collection and analysis, which point to potential areas for future research. First, while this study used a sample of students only in one university, the findings should be generalized with caution. Future research can examine the model with various samples from different online educational settings. Second, the study does not provide an extensive examination of students' personal and social resources influencing their psychological safety in online learning. Future studies can explore other potential resources impacting the interaction with their perceived psychological safety. Specifically, explore how the personal and social resources positively and negatively influence learning performance and what strategies students use to strengthen their learning agility. Third, the learning outcomes of this study were focused on measuring five tourism and hospitality graduate outcomes. Future research can extend the investigation to other types of learning outcomes. Also, to our surprise, the lecturer's support in our conceptual model did not show a significant effect on psychological safety. However, our follow-up interviews uncovered that students seek emotional support

from their lecturers. Future studies could therefore use different measurement scales to account for this important factor.

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Do knowledge management systems motivate and satisfy the academic staff in higher education Institutions?

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Article Info

Abstract

Higher education knowledge management has three goals: improving task quality and efficiency, training human resources at all operational levels, and expanding an organization's field knowledge base to enhance the organization's knowledge or intellectual investment. This research aimed to elucidate the effect of knowledge management on teaching motivation and academic staff satisfaction in Vietnamese universities. The purpose of this study is to establish a clear relationship between knowledge management and teaching motivation and academic staff satisfaction; three dimensions of knowledge management systems, namely knowledge acquisition, knowledge dissemination, and knowledge utilization, all of which contribute to increased teaching motivation and academic staff satisfaction when knowledge management systems are implemented. The quantitative research technique was utilized to gather data in this study by surveying 381 professors using a questionnaire. SPSS 22.0 and SmartPLS software were used to process data obtained via survey professors engaged in teaching. Managerial implications for knowledge management systems have been suggested to increase academic staff satisfaction and teaching motivation.

Introduction

Maintaining and developing human resources is extremely important for any organization, primarily when the Covid-19 pandemic globally affects most industries; maintaining employee motivation and satisfaction have become even more essential and pressing tasks (Kaur et al., 2021). In that situation, the higher education sector faces a significant challenge in maintaining and developing human resources to improve teaching motivation and satisfaction. Improving teaching motivation is challenging for higher education institutions (Khoa, 2020). In recent studies, the knowledge management system is considered an effective tool for managers to improve organizational management and create sustainable competitive advantages regarding human resources for their organization. Several studies have shown that knowledge management is the premise and foundation for developing and maintaining human resources (Razzaq et al., 2019). The knowledge management process includes creating, acquiring, disseminating, and utilizing knowledge (Lee et al., 2013). Monitoring, leadership, policy development, communication, knowledge protection, strategic knowledge management, knowledge-based training, recruiting, performance evaluation, remuneration, learning mechanisms, and information technology practices all fall under the category of knowledge management (Khoa & Hoa, 2021).

Research publications have emphasized the need for innovation in engineering and biomedical science curricula since 2018. Knowledge management's expansion in the classroom might be analyzed (Glass et al., 2018). According to experts, firms should prioritize knowledge management since it is one of the most important resources for producing goods and services. Regardless of differences in educational background or learning style, KM's development has followed a pair of spirals, one epistemological and the other ontological (Nonaka et al., 2000). It was also argued by Rowley (2000) that higher education institutions are in the knowledge business as they are involved in knowledge creation, dissemination, and learning. Demchig (2015) concludes that via information gathering, improved availability and accessibility, and effective utilization, knowledge management helps organizations drive innovation, increase customer service, and achieve business excellence.

Concerning the experimental data on universities and higher education institutions, they must function with limited financial resources and trained, experienced instructors (Demchig, 2015). Knowledge transfer in educational institutions during a pandemic confronts obstacles, in addition to those highlighted over the last decade, from support systems and three aspects of intellectual capital, i.e., human, structural, and relational (Velasquez & Lara, 2017). A unique approach to the knowledge exchange and dissemination method to manage and protect information for competitive advantage was implemented; however, the contribution has not been validated with an actual measurement employing a knowledge management system during the Covid-19 pandemic (Dei & van der Walt, 2020). The use of knowledge management in higher education institutions is now regarded as an effective method and

instrument for improving teaching motivation and work satisfaction. Employee motivation to work could be seen through their enthusiasm, dedication, and focus on contributing to their purpose and general goals (Ifinedo, 2003; Viriando & Sfenrianto, 2021). It shows that work motivation is related to the desire to achieve good results and work performance with the assigned tasks at the organization. Mohamed (2012) discovered that motivated employees would encourage ethical behaviors in the organization. In educational institutions, the motivation of employees, specifically the faculty, is their main driving force; therefore, identifying the teaching motivation of the lecturers is crucial in maintaining the organization's success. Lecturers with good work motivation will refrain from violating professional ethics in teaching, examination, and scientific research. The importance of intrinsic motivation makes creative activities at work (Kim et al., 2021; Klaeijsen et al., 2018). In higher education, employees are mainly lecturers, the central resource of the organization and the core factor in acquiring and using the knowledge management process. Lecturers are considered essential in determining the quality of education and training. Job satisfaction is one of the lecturers' work motivations and is often considered one of the criteria for assessing a university's resources (Sharma & Jyoti, 2009). Exploring the relationship between knowledge management and academic staff satisfaction and teaching motivation at the university is crucial in developing and maintaining human resources.

This research presented data on the effect of knowledge management on teaching motivation and academic staff satisfaction in Vietnamese universities. This study aims to clearly understand the relationship between knowledge management and teaching motivation and academic staff satisfaction; three dimensions of knowledge management systems, including knowledge acquisition, knowledge dissemination, and knowledge utilization, improve teaching motivation and academic staff satisfaction when knowledge management systems are implemented. The software SPSS 22.0 and SmartPLS will process survey data on lecturers who participate in teaching. Before finishing, the data analysis findings will be presented and debated. Managerial implications for knowledge management systems have been suggested to enhance teaching motivation and academic staff satisfaction

Literature review

Knowledge Management in higher education institutions

Many results have confirmed that knowledge acquired through university research accounts for a large part of the knowledge base of each country (Bultrini et al., 2015; Khoa & Nguyen, 2020). It can be said that a university is a place that possesses valuable intellectual resources. Therefore, effective management and use of this resource is a problem for universities. Mikulecký and Mikulecka (1999) suggested that, generally, the academic environment is conducive to using knowledge management concepts and techniques. Knowledge management in higher education has three goals: increasing task quality and efficiency, developing human resources at all operational levels, and growing

an organization's or field's knowledge base to improve the organization's knowledge investment or intellectual investment (Nilsook & Sriwongkol, 2009). Knowledge management in educational institutions can be understood as an organized and systematic process for creating and disseminating information and simultaneously selecting, filtering, and implementing explicit and tacit knowledge to create unique value that can enhance teaching and learning environments (Adhikari, 2010). The following reasons explain this: universities often have modern information infrastructure, sharing knowledge with others is a matter of course for the faculty, and students desire to acquire knowledge from accessible sources as quickly as possible. In this study, knowledge management systems in higher education institutions include three dimensions, knowledge acquisition, knowledge utilization, and knowledge dissemination (Ngoc-Tan & Gregar, 2018).

Knowledge acquisition is collecting data from sources outside the organization after authorization (Zahra & George, 2002). Many types of knowledge sources outside the organization are formed in networks with linkages between different organizations. Organizational productivity and performance will be enhanced as the organization gathers various sources of knowledge to serve its plans and strategies. Bhatt (2001) defined knowledge acquisition as the combination of the abilities to give initial thoughts and parts of knowledge and organize and link them in the organization. Knowledge acquisition is a continuous and dynamic process; the formation of knowledge acquisition processes helps organizations obtain large enough and necessary data sources to serve their management.

Knowledge utilization includes applying, utilizing, and implementing knowledge in organizational processes (Haghighi et al., 2014). It is an important issue because many managers always raise concerns, especially when it is relevant in higher education environments. Holsapple and Joshi (2002) said that using data management systems in knowledge management would help categorize, search, and link knowledge better. Creating a data source managed by a knowledge management system will make it easier for organizations to find, share, utilize and contribute significant values to promote their values and capabilities.

Knowledge dissemination is the organization's knowledge process (Alavi & Leidner, 2001). It may happen between people, groups, or organizations via any communication channel. Furthermore, five variables influence knowledge dissemination: the value of source knowledge, the desire of the source to share information, the variety of communication channels, the recipient's willingness to absorb knowledge, and the receiver's capacity to absorb it (Gupta & Govindarajan, 2000). Meanwhile, Connelly and Kelloway (2003) defined knowledge dissemination as behaviors related to exchanging information or assisting others.

Teaching motivation

Teaching motivation is an essential factor of the higher education environment; whether the lecturers have a good teaching motivation or not determines the success of a training program provided by the Faculty/Institutes of every university. Zembylas and Papanastasiou (2004) showed the impact of bonuses, recognition, leadership satisfaction, and work nature on the teaching motivation of lecturers; the author studied the student attitudes, direct leadership support, salary, learning opportunities and concluded that low levels of job satisfaction or lack of motivation are all related to factors above. Salary, job design, working environment, and the effective evaluation, training, and development management system strongly impacted teaching motivation and helped lecturers be more engaged in their work (Alam & Farid, 2011). The motivational variables were classified into two categories: internal factors, such as the nature of the job, training, and advancement possibilities, and external ones, such as pay, superior support, and connections with co-workers (Boeve, 2007). Besides, other studies only focus on in-depth research on one factor and show the impact on the lecturers' teaching motivation, such as Barnett and McCormick (2003), who focused on the leader's vision and the relationship between this factor and the teaching motivation of lecturers. Similarly, leadership style did affect the teaching motivation of lecturers (Eyal & Roth, 2011).

Academic staff satisfaction

In higher education institutions, finding out the methods and determining the factors that affect lecturers' satisfaction in teaching and scientific research is vital in management science. This study compiles some perspectives on job satisfaction, in which the lecturers are the main research subjects. Job satisfaction comes from interacting with individual variables, job characteristics, and the organization (Hagedorn, 2000). Chen et al. (2006) used six factors to assess the satisfaction of lecturers in China, including organizational vision, respect, feedback on results, management system, salary and welfare, and working environment. Work plays a central role in many people's lives, so one's job satisfaction is an essential component of the overall happiness of employees (Smith, 2007). Job satisfaction is the state that employees feel and satisfy when performing work with clear goals and efficient orientation; besides, he pointed out that satisfaction at work is affected by the combination of three factors, are the expected value from the job, the means of work, and the remuneration from the results of labor in the organization (Lee, 2007). Lecturers' job satisfaction reflects the teachers' affection towards their work or teaching role; it is deemed an emotional state of happy or positive feelings due to evaluating a person's work or work experience (Skaalvik & Skaalvik, 2010). Assessing and recognizing the factors affecting the satisfaction of lecturers helps administrators at institutes provide accurate policies and measures to stimulate and maintain the working motivation of human resources at the organization.

Hypothesis and conceptual model

Some studies have shown a direct and correlated relationship between knowledge management and employees' job satisfaction. Knowledge management systems must overcome organizational difficulties, including employee

confrontations and job satisfaction (Hasballah, 2021). Knowledge management is considered a fundamental factor in increasing the satisfaction level of an organization; the application of elements in the knowledge management process helps shape the interaction between employees and take advantage of the knowledge resources of the involved personnel within the organization, thereby achieving high performance at work and leading to satisfaction with their assigned work (Meher & Mishra, 2021). Employing different empirical methods when applying knowledge management systems is essential in helping organizations manage and achieve their desired performance, impacting their employees' state of mind and actions (Mia & Chowdhuary, 2021). Employee satisfaction may be quantified by examining their work satisfaction as a result of knowledge management practices. Knowledge management, which encompasses knowledge acquisition, distribution, development, and retention, has a beneficial effect on work satisfaction (Alias et al., 2018). Hence, the knowledge management system can be a positive antecedent of academic staff satisfaction as these hypotheses:

H1: Knowledge acquisition positively affects academic staff satisfaction in higher education institutions.

H2: Knowledge utilization positively affects academic staff satisfaction in higher education institutions.

H3: Knowledge dissemination positively affects academic staff satisfaction in higher education institutions.

Information dissemination in an organization is affected by several variables, including the nature of the knowledge, employee characteristics, the structure of the company, and employee attitudes (Widodo et al., 2020). Knowledge dissemination is a premise for employees to absorb different knowledge through interactions between colleagues to create new knowledge, effectively use that knowledge, improve their competitiveness, reach personal achievement, and provide new knowledge about product and service improvement. Considering the importance of the competitive environment, a good knowledge management process helps organizations manage knowledge effectively in formulating strategies to compete with competitors in their industry (Khoa & Hoa, 2021). Regarding mutual interactions in the organization, knowledge management helps employees get intense work motivation and achieve satisfaction and enjoyment in work. Kanaan et al. (2019) also explore organizational management practices for better results. This study examines the significant link between knowledge sharing, company culture, and employee motivation. Employees are motivated when information is shared equitably among them as part of the corporate culture. Because employee performance ultimately leads to success, every company must appreciate its workers and enhance their work motivation. In other words, organizational performance in terms of efficiency and effectiveness is linked to employee motivation, ultimately maximized by organizational performance, establishing the importance of knowledge access equality in the organizational culture to learn appropriate knowledge (Soeprayitno & Rahayu, 2019). Hence, the hypotheses were proposed:

H4: Knowledge acquisition positively affects teaching motivation in higher education institutions.

H5: Knowledge utilization positively affects teaching motivation in higher education institutions.

H6: Knowledge dissemination positively affects teaching motivation in higher education institutions.

Motivational factors show the ability to naturally compete in the organization and awareness, personality, attitude, and learning; motivation is an essential behavior factor (Wilkesmann & Lauer, 2020). Consequently, only when the motivational factors are met will the lecturers' positive behaviors be developed to serve their jobs well, creating satisfaction and enjoyment when participating in teaching and research in the organization. Incentives affect motivation, which is associated with work satisfaction (Paais & Pattiruhu, 2020). Crucke et al. (2022) said employee incentives and motivation affect work satisfaction. Hence, this study proposed the last hypothesis:

H7: Teaching motivation positively affects academic staff satisfaction in higher education institutions.

Several academics have cited knowledge management as an example of what it takes to keep knowledgeable employees happy (Chatzoudes et al., 2015; Kianto et al., 2016). The first thing to note is that prior research has shown that knowledge management evaluations focus on subjective criteria, such as the contentment of experts in the field, rather than objective ones. In this approach, knowledge worker happiness is a key indicator of knowledge management success (Sahibzada et al., 2020; Shujahat et al., 2018). Second, rather than weakening the financial incentives, knowledge workers are inspired to find answers to the challenges associated with knowledge-related tasks (Razzaq et al., 2019). Knowledge management equips workers with information and a framework for problem-solving by allocating the appropriate resources to the right people at the right time (Ha et al., 2021). Third, the present research demonstrates that knowledge development may increase knowledgeable workers' happiness since the new creation may boost the worker's productivity. Similarly, when workers share information, everyone's requirements may be satisfied (Ode & Ayavoo, 2020). Finally, knowledge is used to simplify tasks. In a nutshell, the three main tenets of knowledge management (knowledge production, sharing, and application) boost employee happiness and output in the workplace (Kanaan et al., 2019). Previous research on the topic, titled Knowledge Management Processes and Knowledge Worker Satisfaction (Meher & Mishra, 2021; Sahibzada et al., 2020), provides some insight into the connection between knowledge management and happiness at work. Many empirical studies have examined the relationship between knowledge management processes and knowledge worker motivation (Kanaan et al., 2019; Nguyen et al., 2019). The effect of knowledge management techniques on knowledge worker satisfaction and motivation has only been studied in a few cases. Based on seven hypotheses, Figure 1 points out the relationship between the knowledge management system and teaching motivation and academic staff satisfaction; in

which three dimensions of knowledge management systems, including knowledge acquisition, knowledge dissemination, and knowledge utilization, enhance teaching motivation and academic staff satisfaction when the knowledge management systems are adopted.
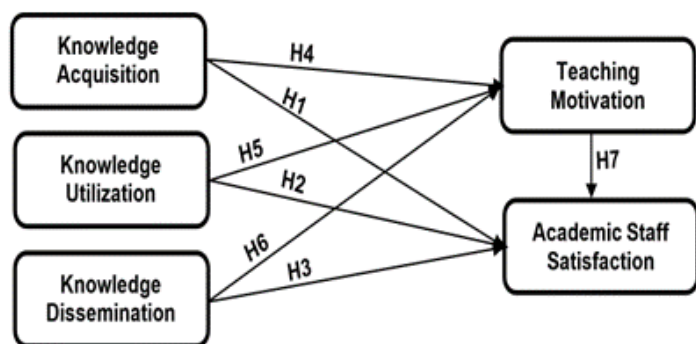

Figure 1. Conceptual model.

Research method

Sampling

This study applied the quantitative research method to achieve the research objectives. The data was collected from the survey based on a self-administered questionnaire distributed to 400 lecturers in the universities in Southern Vietnam. The purposive sampling method was done to collect data in this survey (Saunders, 2018). The participants must have experience in teaching for at least three years, and there is a knowledge management system in their university. The questionnaire used for the survey has screening questions to select appropriate survey subjects, such as "Does your school use a knowledge-sharing system (online bulletin boards, information storage system...)?" (Q1) and "How many years have you been teaching?" (Q2). For Q1, if the answer is "No," the survey will stop; the same for Q2 if the answer is less than three years. After screening, 328 responses were used for the data analysis stage, accounting for 82%. There was a balance between the respondents' gender: 50.6% were men and 49.4% women. Moreover, 77.1% of the respondents' age was from 24 to 40. In terms of the university teaching majors, there was 33.8% in management and technical science. Most participants have Master's degrees (58.5%) and doctorates (33.2%). The full information related to respondent demographics is presented in Table 1.

Scale measurement

The research items in this survey were adopted from prior studies. Preliminary research was done to adjust these items through focus group discussions with seven experts, senior lecturers, and researchers in the knowledge management field (Khoa et al., 2022b). The focus group was held under the authors' instruction via a discussion guideline sent via email to the participants. The constructs in the research model have received high acceptance from experts, and the research items that measured the research constructs were modified to adapt to the research context. The knowledge

Table 1. Respondents' demographics.

		Frequency	Percent
Gender	Male	166	50.6
	Female	162	49.4
Age group	24 – 30	105	32.0
	31 – 35	99	30.2
	36 – 40	49	14.9
	40 – 45	30	9.1
	> 45	45	13.7
Major	Management Science	111	33.8
	Technical science	111	33.8
	Social science	106	32.3
Education level	Bachelor	27	8.2
	Master	192	58.5
	Doctor/Ph.D.	109	33.2

management system was assessed by three constructs, including Knowledge Acquisition (AK) with six items, Knowledge Dissemination (7 items, KD), and Knowledge Utilisation (5 items, KU), adopted from Ngoc-Tan and Gregar (2018). Motivation included academic staff satisfaction (3 items, AS) as internal motivation, based on the Education Criteria of the Malcolm Baldrige National Quality Award, retrieved from Lee et al. (2000); and teaching motivation (4 items, TM) as external motivation, adjusted from Tang et al. (2016); Wilkesmann and Lauer (2020). All research items were evaluated via the five-pointed Likert scale, from "1" as "totally disagree" to "5" as "totally agree." The detailed items are shown in Table 2. The collected data were processed by the SPSS and SmartPLS software.

Table 2. Research items.

Code	Items
Knowledge Acquisition (AK)	
AK1	My university promotes and facilitates the inter-group exchange of ideas and information (faculties and administrative staff).
AK 2	My university has a system for collecting information from consumers, workers, business partners, and rivals.
AK 3	My university reacts to our suggestions and records them for future use.
AK 4	My university has rules that encourage employees to continue their education.
AK 5	My university honors us for our fresh ideas and expertise.
AK 6	My university has a system to absorb and transmit information.
Knowledge Dissemination (KD)	
KD1	My university has libraries, resource centers, and other knowledge-sharing venues.
KD2	My university understands the form, which I can use when required.
KD3	My university has a system for patenting new information.
KD4	My university offers a variety of publications that showcase the information that has been collected.
KD5	My university regularly holds symposiums, seminars, conferences, and training sessions to exchange information.
KD6	My university uses various textual methods, such as newsletters and manuals, to preserve the information they collect.
KD7	My university stores data in repositories for quick access by lecturers.
Knowledge Utilisation (KU)	
KU1	My university uses information analysis to generate new patterns and knowledge for future use.
KU2	My university puts information to use in order to meet critical competitive requirements.
KU3	My university protects information against improper or unlawful usage both within and outside.
KU4	My university uses many ways to expand knowledge and apply it to new circumstances.
KU5	My university has a system for screening, cross-referencing, and integrating knowledge.
Academic Staff Satisfaction (AS)	
AS1	I am dedicated to my institution's knowledge management practices.
AS2	I am pleased with their academic advancement possibilities via the institution's knowledge management practices.
AS3	institution's knowledge management practices are satisfactory to me.
Teaching Motivation (TM)	
TM1	Students need the knowledge gathered through the institution's knowledge management practices.
TM2	I am excellent at the subject(s) I teach because of the information gained through the institution's system.
TM3	I want others to be interested in the topic as well (s)
TM4	My instruction, in my opinion, substantially contributes to my student's overall academic development.

Results

The research started with a convergent validity test. This study examined outer loadings, average variance extracted, and composite reliability. According to table 3, external loadings exceeded 0.708, as Hair et al. (2016) suggested. The AVE criterion should be over 0.5. The AVEs in this research ranged from 0.606 to 0.781, which is acceptable. Similarly, the CR varied from 0.902 to 0.945, more than 0.7, as Hair et al. (2019) indicated. Following the convergent validity test, the discriminant validity test was performed. This test was utilized by the Heterotrait-Monotrait ratio of correlations (HTMT) to test discriminant validity, which must be less than 0.85 (Khoa et al., 2022a). As shown in Table 4, the measurement model has sufficient discriminant validity.

Table 3. Result of convergent validity test.

Construct	Composite Reliability	Average Variance Extracted	Outer loading
Knowledge Acquisition	0.902	0.606	[0.726-0.83]
Academic Staff Satisfaction	0.914	0.781	[0.802-0.923]
Knowledge Dissemination	0.945	0.71	[0.731-0.892]
Knowledge Utilisation	0.935	0.744	[0.845-0.89]
Teaching Motivation	0.919	0.739	[0.841-0.883]

Table 4. Result of discriminant validity test (HTMT value).

Construct	Knowledge Acquisition	Academic Staff Satisfaction	Knowledge Dissemination	Knowledge Utilisation
Academic Staff Satisfaction	0.731			
Knowledge Dissemination	0.629	0.714		
Knowledge Utilisation	0.566	0.647	0.62	
Teaching Motivation	0.607	0.714	0.731	0.669

The Variance inflation factor (VIF) measures the degree of multicollinearity in a collection of multiple regression variables. It is equal to the variance of the entire model divided by that of a model with just that one independent variable. Each independent variable's ratio is computed. A high VIF implies a strongly collinear independent variable with the model's other variables. All VIF coefficients in table 5 are less than 3; hence, this research has no multicollinearity.

Table 5. Result of multicollinearity test (VIF value).

Construct	Academic Staff Satisfaction	Teaching Motivation
Knowledge Acquisition	1.64	1.594
Knowledge Dissemination	2.128	1.77
Knowledge Utilisation	1.796	1.612
Teaching Motivation	2.125	

Hair et al. (2016) recommended assessing the structural model by looking at the R2, beta, and t-values using a 5,000-resample bootstrapping method. Researchers should also provide the predictive relevance (Q2) and the effect sizes (f2). Sullivan and Feinn (2012) claimed that although a p-value may tell if an impact occurs, it cannot disclose its magnitude. Both substantive (effect size) and statistical significance (p-value) are required in reporting and evaluating research. There are three level of f2 as small (> 0.02), medium (> 0.15), and large (> 0.35). Moreover, researchers may also want to investigate Stone-Geisser's Q^2 value as a criterion of predictive significance (Nguyen & Khoa, 2021). A PLS path model's Q2 value is generated by blindfolding latent variables. The threshold of Q2 is more than 0.

In table 6, R2AS is 0.576, which means 57.6% of the variance of academic staff satisfaction could be explained by knowledge acquisition, dissemination, utilization, and teaching motivation. Besides, R2 for teaching motivation is 0.529, suggesting 52.9% of the change in teaching motivation is due to three factors belonging to knowledge management practices. Secondly, Q2AS is 0.44 and Q2TM is 0.382, which are larger than 0; therefore, the presence of endogenous latent variables implied that the PLS route model is predictive of these constructs.

Combining the results from table 6 and table 7, knowledge acquisition (β = 0.148, t = 2.546, p < 0.05, f2 = 0.029 > 0.02), knowledge dissemination (β = 0.41, t = 7.511, p < 0.001, f2 = 0.202 > 0.15), knowledge utilization (β = 0.294, t = 5.306, p < 0.001, f2 = 0.114 > 0.02) positively influenced teaching motivation as applying the knowledge management system. These results give support for H4, H5, and H6.

Table 6. Result of R Square, f square, and Q square.

Construct	R Square	f Square Academic Staff Satisfaction	f Square Teaching Motivation	Q Square
Knowledge Acquisition		0.129	0.029	
Academic Staff Satisfaction	0.576			0.44
Knowledge Dissemination		0.065	0.202	
Knowledge Utilisation		0.04	0.114	
Teaching Motivation	0.529	0.046		0.382

Knowledge acquisition (β = 0.299, t = 5.64, p < 0.001, f2 = 0.129 > 0.02), knowledge dissemination (β = 0.241, t = 3.675, p < 0.001, f2 = 0.065 > 0.02), knowledge utilization (β = 0.174, t = 2.871, p < 0.01, f2 = 0.04 > 0.02), and teaching motivation (β = 0.204, t = 3.296, p < 0.01, f2 = 0.046 > 0.02) have a positive impact on academic staff satisfaction. These results give support for H1, H2, H3, and H7.

Table 7. Path coefficient result

Relationship (Hypothesis)	β	t	Sig.	Result
Knowledge Acquisition -> Academic Staff Satisfaction (H1)	0.299	5.64	0.000	Supported
Knowledge Utilisation -> Academic Staff Satisfaction (H2)	0.174	2.871	0.004	Supported
Knowledge Dissemination -> Academic Staff Satisfaction (H3)	0.241	3.675	0.000	Supported
Knowledge Acquisition -> Teaching Motivation (H4)	0.148	2.546	0.009	Supported
Knowledge Utilisation -> Teaching Motivation (H5)	0.294	5.306	0.000	Supported
Knowledge Dissemination -> Teaching Motivation (H6)	0.41	7.511	0.000	Supported
Teaching Motivation -> Academic Staff Satisfaction (H7)	0.204	3.296	0.001	Supported
SRMR = 0.054; NFI = 0.921; RMS_theta = 0.1				

The SRMR was introduced by Henseler et al. (2014) as a goodness-of-fit metric for PLS-SEM that may be used to prevent model misspecification. Moreover, Bentler and Bonett (1980) pointed out that Normed Fit Index (NFI) was one of the earliest fit metrics presented in the SEM literature. Consequently, the NFI produces values ranging from 0 to 1; the greater the NFI, the better the fit. NFI values greater than 0.9 generally indicate a good match. Lohmöller (2013) defined RMS theta as the root mean squared residual covariance matrix of the outer model residuals. Because outer model residuals for formative measurement models are meaningless, this fit metric is only appropriate for evaluating purely reflective models. RMS theta values less than 0.12 suggest that the model is well-fitting. The result in table 7 indicates a good fit model.

Discussion

The research found a positive relationship between knowledge management, teaching motivation, and academic staff satisfaction. Research in Vietnam's educational environment is the basis for enriching research materials on knowledge management in education. Research shows that the component elements of a knowledge management system are knowledge acquisition, knowledge utilization, and knowledge dissemination, which can have a substantial and direct impact on teaching motivation and academic staff satisfaction, as shown in Figure 2.
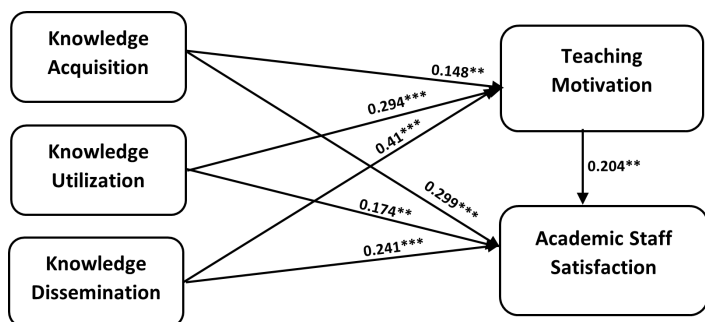

Figure 2. The resulting model (* p < .05. **p < .01).

Ngoc-Tan and Gregar (2018) used three factors, knowledge acquisition, knowledge utilization, and knowledge dissemination, to explore the impact on improvement in the organization. Alias et al. (2018) studied knowledge management practice but using knowledge acquisition, knowledge creation, knowledge sharing, knowledge codification, and knowledge retention affecting employee job satisfaction; this result is similar to the impact of knowledge management on the satisfaction of lecturers (Alias et al., 2018); although, this study mentioned three other aspects, knowledge acquisition, knowledge utilization, and knowledge dissemination. Managers can increase their organization's competitive advantages by exploring the relationship between knowledge management and employee satisfaction. Hence, the knowledge management system is a crucial factor in creating a correlative relationship with employees' job satisfaction in an organization; therefore, exploring and examining the impact of knowledge management on academic staff satisfaction is always a topic of interest to management scientists. When knowledge management impacts work happiness, improved knowledge management applications might boost lecturers' satisfaction (Hasballah, 2021). Knowledge management may be used to solve organizational difficulties, thereby reaching the desired objectives and vision. As a result, knowledge management is vital in boosting work satisfaction. Knowledge management may assist businesses in identifying, selecting, organizing, disseminating, and transferring critical information and experiences (Mathew, 2010). Despite their distinctions, information and knowledge are sometimes employed interchangeably. Knowledge is derived through the flow of information because information gives a fresh perspective on perceiving each event or item. Information is the medium or substance required to acquire, create, and grow knowledge. This study's findings are congruent with those of Jadidi et al. (2013), who claim that knowledge management impacts

work satisfaction.

Several studies related the relationship between knowledge management and employee motivation (Chen et al., 2010; Ergün & Avci, 2018); this study realized a closely correlative relationship between these two elements; the studies here study employees in the organization. Sharing and using knowledge will enhance its core competencies and ultimately maximize operational efficiency in the relationship with its co-workers' superiors and facilitate interpersonal communication among the organization's human resources. Besides, employee satisfaction is equally crucial to the growth and development of the organization (Ifinedo, 2003; Shah et al., 2012). Employee motivation is critical for the success of continuing education in the information age (Kanaan et al., 2019). To realize this inspiration, the formation must encourage the effective pursuit of additional (recognized) qualifications, promote major mobility and professional flexibility, and link access to additional knowledge of the mutations at play within the firm and their context in order for the formation to become integral to the firm's overarching global strategy (Nguyen et al., 2019). The 'know-how' and dedication held by an organization's human capabilities differentiates successful organizations from others. According to Olomolaiye and Egbu (2004), knowledge workers or lecturers are unique resources that require and deserve management time and attention.

Highly driven lecturers are more likely to take advantage of learning and development opportunities since they are self-motivated and value their independence (Demircioglu & Chen, 2019). Two types of worker motivation have been identified: intrinsic and extrinsic (Paais & Pattiruhu, 2020). Hayati and Caniago (2012) investigated the impact of intrinsic motivation on satisfaction. According to the research of Klaeijsen et al. (2018), motivation is defined as "a psychological process that provides goals and direction for employee behavior" or "an internal drive to meet employee satisfaction," in addition to other factors, such as internal processes and external forces related to organizational behavior.

Conclusion

This research examined the relationships between knowledge management, teaching motivation, and university academic staff satisfaction. According to the study, knowledge management is a favorable predictor of teaching motivation and teacher satisfaction. The study's findings helped shape an applied model of the good association between knowledge management and job motivation and satisfaction. The findings further support the positive link between teaching motivation and job satisfaction.

Higher education institutions need to strengthen and innovate the management work to improve the effectiveness of the knowledge management system. This study is relevant for managers, as the results relate to knowledge management, thereby being applicable to management activities at higher education institutions in Vietnam in order to improve the satisfaction and teaching motivation of the

lecturers, which significantly helps in the development and maintenance of the organization's resources.

For knowledge acquisition, managers should continuously invest in infrastructure, especially technology, to store data systems. Higher education institutions must invest in an extensive server system to store various knowledge resources, including teaching materials, student-related resources, and scientific research in Vietnam. At the same time, universities should use electronic resources through the electronic library system in association with considerable electronic resources at major universities in the world; this solution will create a significant support source to enhance the development of the knowledge acquisition system of lecturers.

With knowledge dissemination, digital resources will be the foundation and center for sharing knowledge with lecturers. The electronic database must be regularly updated to share knowledge with users promptly. In addition, higher education institutions need to organize online conference programs and online training classes to disseminate knowledge to lecturers. The Covid-19 pandemic has caused the world to shift to more online training and teaching through online software such as Zoom, MS-team, and Google meetings. In addition, universities need to use the online learning, exchange, and examination system LMS (Learning Management System) as a foundational tool to use, share and disseminate knowledge.

As for knowledge utilization, managers should encourage increased learning and use of the source of knowledge provided to form specific rules or processes. Managers should form a mindset and attitude to continuously use internal and external sources of knowledge to form habits for all human resources in the organization. Using good knowledge resources will help improve teaching and research productivity, motivating them to study and use knowledge to continue developing themselves.

Our research only evaluates the dynamics of knowledge management with three components as the foundation for acquiring, using, and disseminating knowledge. We believe that further research directions can expand knowledge management components to achieve better results. Another factor that researchers may be interested in is the multicultural factor. Ngoc-Tan and Gregar (2018) pointed out that universities in different countries with different cultural factors will give many exciting results, so further research can be done in different countries, which will have updated results on teaching motivation and academic staff satisfaction.

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"School is not for me": Young people's perceptions of being a self-directed learner in a small rural Tasmanian town

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Abstract

The Education Act (2016) was introduced in Tasmania to address the state's high rates of early school leaving. Such legislative reforms may overlook informal factors that influence educational outcomes. In this paper we argue that a deeper understanding of the underlying drivers of retention and engagement in diverse social and cultural contexts is vital in supporting the Education Act. Drawing on qualitative data, this paper provides insights into how a group of Grade 10 students in a small rural town in Tasmania made the choice to leave school early or continue on to some form of post-compulsory education. Using Berger and Luckmann's theory of sociology of everyday life together with Bourdieu's (1990) concepts of social and cultural capital, this paper highlights how perceptions of being a self-directed learner and feelings about the future shaped the young people's educational decisions. It emphasises how a localised form of social and cultural capital was associated with feelings of failure and anxiety about future learning, whereas a broader form of social and cultural capital was linked with more optimistic perceptions of being a self-directed learner. The paper suggests that the career aspirations, including university study, of young people living in regional areas may be supported through familiarisation with larger regional towns and raising their awareness of post school options.

Introduction

Whilst research on young rural people and their educational decision-making tend to emphasise the importance of some common factors, including physical distance, financial barriers and attachment to place, some researchers warn against treating people living in regional, rural and remote areas as a homogeneous group (Corbett & Forsey, 2017; Fray et al., 2020). Fray et al.'s scoping review of aspirations for higher education of students from regional and remote areas highlights that "in making comparisons by location, often in reference to students from metropolitan areas, the definition of regional and remote communities in much of the existing research overlooks differences within and between such communities" (p. 71). Fray et al. call for more investigation into the uniqueness and nuances of particular rural communities and how this shape young people's educational decision making. In this paper we respond to calls to move beyond the metrocentric focus in youth and educational research, and seek to contribute to the emergent literature on how young people make their educational decisions in rural areas (Corbett, 2007; Corbett, 2013; Cuervo & Wyn, 2012; Farrugia, 2014; Fray et al., 2020; Wierenga, 2009, 2011).

In examining the nuances of the social and cultural dynamics in one rural community in Tasmania and how these dynamics influence a group of Grade 10 students' perceptions of themselves as future learners, we seek to make a contribution to strategies which may support the Tasmanian Education Act and young people's transition to further education and training. We particularly draw on data from the Education Department (2021) which is starting to indicate that patterns of retention and engagement have not shifted markedly since the introduction of the Tasmanian Education Act (2016). Legislative reforms may overlook informal factors that influence educational outcomes, and we use qualitative data from a PhD study completed in 2016 when the Education Act was first introduced to provide an in-depth understanding of some underlying drivers of retention and engagement in one small Tasmanian rural community.

This paper first reviews the current literature on the topic of young rural people and educational decision making. It then outlines the study's theoretical framework, methods and specific social context before moving on to a discussion of findings. The first findings section 'Life in s small rural town' establishes how interaction between geography and social life shape the young people's engagement with education. The second findings chapter 'Individualised aspirations' focuses on how responsibilisation shape the educational choices of young people living in a rural context and the third chapter 'School is not for me: Experiences of failure and anxiety about the future' uncovers a variety of reasons for leaving school early, including a self-perception of a lack of capacity for self-directed learning. The fourth findings chapter 'The role of social and cultural capital in perceptions of being a self-directed learner' explores how some of the young people thrived to be a successful and self-directed learner but equated this with a different kind of social and cultural capital which they perceived to be foreign to them. In contrast, young people who had a more optimistic perception of their future as learners had access to a broader form of social and cultural capital. The paper ends with a discussion and conclusion that emphasises that although the young participants had internalised societal and educational messages that education was paramount to their futures, these messages also contributed to the perception of failure as a reflection of personal capabilities (Beck, 1992; Giddens, 1991; Mcleod, 2017).

The emphasis on education as a key driver of individual and societal prosperity has become so pervasive in contemporary society, that Cuervo and Wyn (2012, p. 41) have argued the role of education has become "a naturalised discourse." Yet "the achievements of regional, rural and remote students have, in the main, lagged behind urban students for decades" (Halsey, 2018 p. 11). In Tasmania, a regional state in Australia, the proportion of the population with school and post-school qualifications is particularly low (Regulatory Impact Statement for the Education Bill, 2016; Productivity Commission, 2022). To address the state's low retention and participation in education, the policy settings in Tasmania shifted markedly in 2016, with the introduction of a new Education Act. Year 10 students during 2019 were the first group of young people who need to meet this increased minimum leaving requirement. In Tasmania, after Year 10, a young person can choose from a number of education and training options, or a combination of different options if the provider/s allows. These include; Years 11 and 12 at any government or non-government school or college, or tertiary provider – this may include an Australian School-based Apprenticeship; a Vocational Education and Training (VET) qualification through any registered training organisation; an apprenticeship or traineeship with an employer. In addition, young people with full-time employment, or other specific circumstances, can apply for an exemption to allow them to leave education and training (Education Act, 2016).

Current data (Department of Education, 2021) shows minor improvements in attendance, such as an apparent retention rate to Years 10-12 for Government schools of 79.5 per cent in 2020, up from 76.5 in 2019, but down from 80.4 in 2019. The 'apparent retention rate' is an Australian Bureau of Statistics measure based on the number of full-time students in Year 12 expressed as a percentage of the number of full-time Year 10 students two years earlier. The measure does not take into account a range of factors such as alternative education and training pathways, students changing to part time study and interstate, international or cross-sector movement of students. Although that the first cohort has aged into the change during 2019, the policy and public discourse in the lead up to that date, has emphasised a need to improve retention and completion rates in Tasmania (Department of Education, 2021). Legislative reform is a blunt policy instrument that may overlook informal factors that influence educational outcomes which require additional strategies to encourage meaningful and active engagement with education. In this paper we argue that a deeper understanding of the underlying drivers of retention and engagement in diverse social and cultural contexts is vital in supporting the Education Act. We use a sociology of everyday life (Berger & Luckmann, 1966) together with Bourdieu's (1990) concepts of social and cultural capital to capture how social life in a small rural Tasmanian town

shaped perceptions of being a self-directed learner in a group of Grade 10 students. Our analysis particularly highlights how a localised form of social and cultural capital was associated with feelings of failure and anxiety about being a self-directed learner, whereas a broader form of social and cultural capital was linked to more optimistic perceptions of engaging with further education.

Insights into the emplaced nature of young people's experiences often come from spatialised youth sociology (Cuervo & Wyn, 2017; Farrugia, 2014). There have also been calls to move beyond the metrocentric approaches of the sociology of education to investigate how place and biography life experiences interact to shape young people's educational choices (Corbett, 2007; Cuervo & Wyn, 2012; Cuervo & Wyn, 2017; Wierenga, 2009; Chesters & Cuervo, 2022). Financial costs associated with moving away to larger regional towns for education is often noted as a key barrier for young people living in rural areas (Alloway & Dalley-Trim, 2009), and in their study of inequalities in university participation of young people from rural and regional and urban Australia, Chesters and Cuervo argue that 'with the financial costs that low [socio-economic status] SES regional and rural students have to contend with make relocating to metropolitan areas seem insurmountable resulting in high achieving students eschewing higher education' (2022, p. 58). In Australian and international literature on rural young people's educational choices Bourdieu's (1990) concept of social capital, a person's social networks, is frequently used to explain how young people's strong feelings of attachment to their local communities shape decisions to leave the education system rather than continue schooling away from home (Abbott-Chapman & Kilpatrick, 2001; Cuervo & Wyn, 2012; Fabianson, 2006; Wierenga, 2009, 2011). This relationship between attachment to local community and early school-leaving is highlighted in a 2016 ACER report which found 'high anxiety around transitions between Year 10 and Year 11 by some students, especially among those living outside of the larger cities' (p. 19) in Tasmania. A number of studies have found that greater interaction with the area beyond the young people's immediate environment enable them to relate more positively to choices to continue in post-compulsory education and training (Harwood et al., 2015; Halsey, 2018; Schmidt, 2017). According to this body of literature the educational decisions of young people living in rural areas are shaped not only by access to resources but also by particular interpretations of living in a rural area.

Young people's aspirations have been identified as a key factor shaping their educational decisions. One of the key aims of The Independent Review into Regional, Rural and Remote Education (2018) was to investigate "the key barriers and challenges that impact on the educational outcomes of regional, rural and remote students, including aspirations and access issues" (Halsey, 2018 p. 1). One body of research highlights that the educational aspirations of young people living in regional areas are similar to those living in metropolitan areas (Abbott-Chapman & Kilpatrick, 2001; Alloway & Dalley-Trim, 2009; Cuervo et al., 2019) but the context of social and economic restructuring means that these aspirations are not always realised. Some researchers draw on Bourdieu's (1990) notion of cultural capital, a person's knowledges, skills and tastes, to theorise young

people's aspirations and educational choices in rural areas. In Australia, Wierenga's (2009) longitudinal study of young people living in a small rural town in southern Tasmania highlights how broader worldviews are linked with decisions to continue in education, whereas local worldviews are linked with choices to leave school early. Corbett, in his study of young Canadian people, observes an 'uneven distribution of mobility opportunities' (2013, p. 275) in the local community and argues that the possession of 'mobility capital' is a key indicator of success in the post-industrial labour market. Cuervo & Wyn (2017) apply the concept of motilities, the potential to be mobile, to their analysis of data from the Life Patterns Study and interviews with rural young people and argue that "both mobility and motility generate different individual biographies, as well as different processes of social inclusion and exclusion" (Cuervo & Wyn, 2017, p. 8). Similarly, Cuervo, Chesters and Aberdeen (2019, p. 858) found that parental cultural capital played a key role in young rural people's educational decisions, but they also found that 'peer-derived social capital was independently and positively associated with having higher education aspirations'.

Young people in late modernity make the transition to adulthood in an environment of economic and industrial transformation in which the decline of traditional social structures is seen to have brought about unlimited choice and freedom. Consequently, ideas such as the "do it yourself biography" (Beck, 1992), "choice biography" (Du Bois-Reymond, 1998) and "the project of the self" (Giddens, 1991) have become an essential part of the sociological vocabulary explaining human behaviour in post-industrial societies. The understanding that late modernity has provided young people with unprecedented choice (Beck, 1992; Giddens, 1991), in combination with the prevalence of a neoliberal ideology promoting self-responsibility and self-accountability (Brown, 2005; Harvey, 2005) places the responsibility for educational success or failure with the individual. For example, Hodgson (2018, pp. 1-2) argues that an increase in the school leaving age in Western Australia has been associated with an increased level of disciplining the conduct of young people "towards normative ends of participation and engagement", pushing young people to "see themselves as engaged learners and self-reliant citizens". This emphasis on the "do it yourself biography" (Beck, 1992) and self-reliance mask the continuing importance of social structures such a place and has been described as a process of responsibilisation (Mcleod, 2017; Peters, 2001). This heightens the risk of both societal disapproval and self-blame for individuals who fail to make decisions that are deemed socially desirable (Brown, 2005; Harvey, 2005; Hodgson 2018). This understanding increases the risk that young people may internalise their failures through attributing "failed transitions" to lack of individual effort rather than as the result of the complex circumstances young people face in a late modern labour market (Nairn et al., 2012; te Riele, 2012; Woodman & Wyn, 2013). In Children of Rogernomics (2012) Nairn, Higgins and Sligo explore how the identities of young people in New Zealand have been shaped by the messages of neoliberal policies that people are self-interested and rational. The authors conclude that there was a tension between neoliberal expectations and the young people's own experiences. Whilst the young

people's recognition of the non-linear nature of school-work transitions was associated with uncertainty, they nevertheless maintained a belief in their responsibility to craft their own identities and lives because "within the meritocratic discourses of neoliberalism, however, structural constraints disappear, and individuals appear to act independently" (p. 174).

Theoretical framework

In the context of this study, Year 12 students in Australia would make a major decision in their lives: They can continue to get an education (and leaving home) or to work (and stay in their hometown). They will be making that decision based on how they have come to experience, perceive and understand their surroundings, the world and their future. Their sense of self and worth will also be objectivated through the education system as they are being assessed on their ability to pursue higher education, and also through their upbringing and socialisation in their family and town. Whatever they have internalised would be the knowledge, skills and aspirations they hold.

From a sociology of everyday life approach, small-scale processes are investigated and evaluated. There is a focus on personal experiences, with the social analysis of everyday activities. Society is conceptualised as a collective entity through everyday events, relations, and interactions. This entails that meanings and values, ascribed into people's understanding of everyday reality, emerge and perpetuated through social negotiation and everyday processes (Berger & Luckmann, 1966; Ghisleni, 2017; Swingewood, 1991). In attempting to understand the emplaced nature of the young people's perceptions of themselves as learners and the connection with their educational choices, this analysis draws on a sociology of everyday life and the social construction of reality (Berger & Luckmann, 1962).

This theory argues that that "Society is a human product. Society is an objective reality. Man [sic] is a social product" (Berger & Luckmann, 1962 p. 79). This social product is created in the everyday life, with its routines, activities and interactions. Everyday routines matter to society because they reduce the psychological costs of choices and simplify the complexity of social reality by generating predictable and habitual bodies of meanings and values (Ghisleni, 2017, p. 532). The shortcuts to apprehending reality involves a three-fold process of externalisation, objectivation and internalisation. Externalisation refers to the ongoing generation of the social order and reality through societal and interpersonal activities and relations. Objectivation is the process of getting the character of objectivity (p. 57). This sense of tangibility arises through human expressivity, and to individuals such human expressions have a felt presence and reality to them, and also to others who observe these expressions in society. Internalisation refers to the objectivated social reality that has been socialised into the consciousness of individuals and have become part of their worldview (pp. 119-159).

The young people's internalisation of their everyday world is conceptualised as social and cultural capital in this paper (Bourdieu (1977/1990). These concepts assist an analysis of how the young people's sense of place is shaped by their cultural knowledges and practices, and how these knowledges are mediated by their social networks. Through a set of sociology of everyday life lenses, it is revealed how such capitals are externalised, objectivised and internalised. Using this approach, the social dynamics of creating or removing barriers to educational attainment can be revealed. Although Bourdieu's concepts have been critiqued for inadequately dealing with structures other than class (Adkins & Skeggs, 2004; McLeod & Yates, 2006; Schippers, 2007), this analysis draws on these concepts to capture how a sense of place shape young people's perceptions of themselves as self-learners in a small rural town in Tasmania.

Methods and social context

This paper is based on research undertaken in a mixed gender, non-streamed public high school in rural Tasmania at the end of 2007 to early 2008. The town and the school are located in what was given the fictitious name of Hillsville, a small rural town of around 3000 residents compared to the capital city Hobart with a population of 206,097 then. Hillsville High catered to a predominantly working-class families, with a sprinkling of students from more affluent backgrounds. An even number of male and female Grade 10 students aged between 15 and 16 years old participated in this study (n= 44). Ten weeks of participant observation was undertaken at the school, followed by interviews with students (n = 33), teachers (n = 9), parents (n = 8) and policy makers (n = 7) and these data were analysed thematically. This project received ethics approval from the Human Research Ethics Committee (Tasmania Network) and the Tasmanian Department of Education.

Participant observation was chosen as a key data collection technique because it offers a way to gain an insider's perspective of how young people make their educational choices. The need to unearth the layered meanings and understandings underlying young people's views on the country and the city seem particularly reliant on an insider account (Denzin & Lincoln, 2003). The emphasis on the multifaceted nature of everyday micro-interactions and meaning making processes of participant observation lends itself to an investigation of how young people's educational decisions are tied to their everyday experiences and social relationships (Hammersley & Atkinson, 1983).

Data was analysed using NVivo, a computer assisted qualitative data analysis program (CAQDAS). It was anticipated that the participant observation would generate a large amount of field notes (Jorgensen 1989: 105). It seemed practicable to integrate these notes into one single program and then transcribe, code and analyse them without having to rely on numerous separate folders and files. Being able to manage all data within one program was furthermore considered the most secure way to store a large amount of notes, files and folders. 102 Using NVivo, a thematic analysis was conducted. First a code, or a node, was assigned to small meaningful segments of text by using NVivo's highlighting

and coding tool. Following the developments of these initial codes, categories were identified, categories subsumed into larger categories and core themes developed. Themes and sub-themes were finally amalgamated or subdivided and located within previous research and the theoretical paradigm (Grbich 1999, p. 234; Van Manen, 1997). Throughout the processes of initial coding, categorising and theme development the field notes and interview transcripts were re-read continuously in an open-ended dialogue of fitting and re-fitting data to pre-conceived concepts and emerging categories.

The relatively high rates of early school leaving in Tasmania is linked with the small proportion of Tasmania's population with school and post-school qualifications (Regulatory Impact Statement for the Education Bill, 2016). Tasmania is classified as a regional state and challenges to participation in education include the state's high levels of socio-economic disadvantage which is the highest of any state or territory and almost twice the levels of Australia overall, with many Tasmanian children missing out on quality early education experiences. This is linked to a range of educational, social and economic challenges for the state including the lowest Gross State Product per capita of any state or territory, lower productivity than Australia as a whole, with the gap widening over the past 20 years, lower wages than any other state or territory, lower labour force participation, lower life expectancy at birth for both males and females, poor health outcomes, lower functional literacy levels. These characteristics are often compounded by regionality, with many regional areas reporting lower labour force participation, poorer health outcomes, lower functional literacy levels etc. (Regulatory Impact Statement for the Education Bill, 2016).

The community in which the young people lived is an ethnically homogenous community with few residents identifying as having a background other than Anglo-Saxon. Measured by the SEIFA index, Hillsville is consistently listed as disadvantaged on a number of socio-economic and educational characteristics employed by this index (Australian Bureau of Statistics [ABS] ABS, 2011). Although a high proportion of Hillsville's residents are welfare recipients, this coexists with a high concentration of wealth amongst a small group of people. Opportunities for manual labour are reflected in the relatively low unemployment rate, yet around ten per cent of young people aged 15-19 are unemployed. Organised leisure activities mainly consist of sport, and football is the dominant sporting activity. Hillsville High is an essential part of the community, which is located in an area of low education retention. Although there are some opportunities for post-compulsory education in the area, students wishing to undertake pre-tertiary studies are required to study in the nearest regional town. The high levels of social inequality, welfare dependence and fracturing of traditional pathways into relatively secure manual employment for young people paint a picture of a community in which the economic restructuring of the 1980s has had enduring effects.

Due to the qualitative nature of this study findings are not generalizable but the in-depth nature of the findings means that they are useful for generating new knowledge about how young people experience education in a rural context. Some data has been excluded from the study due to issues of anonymity and confidentiality even though it provides valuable insights into the motives and experience behind the participants' views on continuing their education. This has been necessary in order to protect the identity of respondents and where the material is of an especially sensitive nature.

The significance of self-reflexivity, 'the researcher's active consideration of his or her place in the research' (Bailey 2007, p. 119) is especially important in participatory research where the researcher is the research instrument through which the participants' stories are recorded and analysed. During the participant observation the researcher, like other fieldworkers, became deeply embedded in the research context (Angrosino & Rosenberg, 2011, p. 470). Therefore the researcher made a conscious effort to 'turn on herself (Angrosino & Rosenberg, 2011, p. 470) to make sure the research was rigorous and bias limited. Consciously recording and reflecting on the observations made during the participant observation formed an important part of the research process. A form of self-reflexivity also came to guide the recordings of daily events. Applying self-reflexivity to stories and conversations generated an acute awareness that all participants were active, knowing subjects who were conscious of their position in the social hierarchy at the school and the decisions they were making.

This discussion highlights the interplay between the residents of Hillsville and their geographic context. In many ways Hillsville is a community characterised by low income similar to other Australian communities, with low socio-economic status linked to particular health, housing and education indicators. However, the town's location in a particular part of rural Australia shapes its social, cultural and economic life in contradictory and unpredictable ways which differ from urban communities with similar characteristics.

Life in a small rural town

Similar to findings from studies of other rural places in Australia, the young people in this study expressed deep appreciation of their small community and their strong bonds with other community members (Leyshon, 2008; Wierenga, 2009; Butler & Muir, 2017). All the young people in this study described Hillsville as a relaxed little town free from the hustle and bustle of the city. This description of Hillsville included the perception of the town as inclusive and friendly. The young people consistently spoke of walking up the street and "knowing everyone" as one of the best things about their town. They appreciated that nearby there "is always someone to talk to", "always someone who cares". These descriptions of the importance of intimate and informal relationships in maintaining social coherence and inclusiveness highlights a community characterised by gemeinschaft qualities (Toennies, 1957) and high levels of social capital (Bourdieu, 1990).

The young people's connection to the natural habitat was also integral to their sense of self. Anna, Anita and Nina describe how embodied childhood experiences of "swimming in the

river" and "motorbike racing over the paddocks" characterise their love of the area. Nigel's descriptions of his rally track reveal similar, embodied connections with the land. Nigel explains that "I cut down the trees myself [for the rally track]. I drive around all the paddocks at home and then into the track." The young people's stories connect with other accounts of young people's embedded experiences in their local environment (Wierenga, 2009; Wierenga, 2011; Corbett, 2013; Cuervo & Wyn, 2012; Cuervo & Wyn, 2017). In the case of Hillsville, life habitually lived is a life bound up with nature. The internalisation of the natural environment happens in subtle ways, such as the daily ride on the school bus through the green hills or through planned activities such as camping. The relationships with the natural world around them demand immediate attention to sensory experiences and brings a degree of slowness and authenticity to the young people's everyday life that is not easily found in the city.

The strong social capital in Hillsville and connection to the land on which the young people lived influenced decisions to leave the education system early, with both male and female participants nominating the move away from family and friends as a major deterrent to continue their education. Paul sums up the thoughts of many participants in his comment that "This is where I grew up, it's my home. I couldn't just start fresh somewhere else. I have all my family here so I would end up coming back anyway even if I went away". Often the young people's concerns about leaving their families were reflected in parental perceptions of their children moving away from home, with Mrs Beckett stating that "Stephen is just not mature enough to move away and live on his own, so we have helped him to find employment here". Even though the young people could make the choice to make a return trip from Hillsville to Springfield every day rather than moving to another town, this was often not considered an option because of the long bus trip involved. Wendy's statement that "I just don't want to leave, and it is too far to travel every day. I can't get up that early in the morning and be back so late. I'll stay here and see how I go" reflects the thoughts of many young people. The association between the move away from Hillsville and premature separation from family, friends and the local area, or hours spent travelling on the bus every day connects with other findings on young people and educational decision making (Alloway & Dalley-Trim, 2009; Chesters & Cuervo, 2022). But the young people's accounts of their everyday lives also add depth to the understanding of how experiences of life in a small rural town are externalised through place-based interactions with people, nature and animals, and objectivated and internalised as part of a particular worldview (Berger & Luckmann, 1962).

The young people's stories start to indicate the importance of social and cultural capital in their lives and its role in shaping their educational decisions. One the one hand, the high levels of social capital and local forms of cultural capital supported and nurtured them in their daily lives through deep connections to local people, place and nature. On the other hand, this kind of social and cultural capital was also framed as a liability by the School and broader societal and policy messages on responsibilisation (Mcleod, 2017; Peters, 2001). The skills and knowledge some of the young people had internalised were unlikely to support the messages conveyed by the School that making responsible choices involved completing school and continuing to post-compulsory education because such choices were characterised by geographical mobility and flexibility. This interaction between geography and social life shaped the young people's interaction with their education beyond physical barriers and economic concerns in unique and unexpected ways.

Individualised aspirations

A common theme running through the young participants' aspirations was the highly individualised nature of their plans for the future. Some "just knew" that they wanted to be different from the mainstream and commented that "I want to make my own choices" (Wendy) and "I want to become an interesting person" (Anne) "I don't want a 9 to 5" (Robert). These comments suggest that these young rural people were similar to youth from other social and cultural backgrounds in engaging with the "do it yourself biography" (Beck, 1992) and being optimistic about their futures (McCleod & Yates, 2006; Nairns et al., 2006). The young participants strongly felt that education was key to realising their aspirations and obtaining a "good job", with comments such as "education gives me better chances of getting work" (Rose; John) and "you will have a more interesting life if you have some education" (Neville). Completion of Year 10, senior secondary education, vocational and tertiary were all seen as contributing to making good decisions, highlighting the 'naturalised discourse' of education in young people's lives (Cuervo & Wyn, 2012, p. 4).

Broader societal messages of responsibilisation (Hodgson, 2018) were promoted by the School and contributed to the young people's strong desire to make "good choices". In both formal and informal situations students were urged to "work hard and continue on to further education to be able to compete in the labour market" (Mr Fielding, final Year 10 assembly). These neo-liberal notions of self-responsibility intersected with a traditional farming ideology of self-reliance rooted in the community itself (Gray & Lawrence, 2001) and resulted in a unique place-based version of responsibilisation which strengthened the message that making good decisions were the responsibility of the young people themselves. Many of the young people often spoke about helping out in their families for example by "cutting wood and hunting" (Nigel) or "helping out in the family business" (Trudy, Rose), exemplifying the continuing importance of self-reliance. Anita's decision to be absent from school for an extended period of time because she was helping her family with an emergency on the farm received sympathetic replies such as "well done" (Ralph), "poor people" (Susan) and "I hope they are all right" (Mrs Willis). The school and its teachers praised the young people for their work ethic, with some teachers explaining with deep admiration that they had students in their classes who "get up at 3 or 4 in the morning to work before they come to school" (Mr Marshall) whilst also acknowledging how this interfered with the students' education because of their absence from school or "fall[ing] asleep at the end of the day" (Ms Carpenter).

The young people's value alignment with the concepts of self-responsibilisation, coupled with their expressed desire to "make my own good choices" is paradoxically nested within an evolving legislative framework that mandates a range of responsible choices. These choices align with assumptions from human capital theory aimed at advancing broader productivity goals (Tan, 2014). The intersection of aspects of traditional farming ideology and the neoliberal emphasis on responsibilisation meant that the young rural people in this study had internalised the pressure to perform "towards normative ends of participation and engagement" (Hodgson, 2018 p. 1-2) particularly deeply. They all had aspirations to obtain "a good job" and understood the importance of education in realising their ambitions. However, embracing these ideas was not straightforward, with many consciously making the choice to leave school early.

School is not for me: Experiences of failure and anxiety about the future

Despite a strong desire to embrace the formal curriculum, difficulties in engaging with academic work often resulted in feelings of inadequacy and powerlessness. An extract from the field work highlights a common response to engaging with the formal curriculum:

> One young man, Paul, has experienced extensive periods of time outside the education system in manual labour and has had experiences which he considers exploitative and dehumanising. He tells me he would like to 'turn things around' and give education 'a go' and that it is important to him to have a good resume he can show to future employers. He continues to on to write his resume, but it becomes evident that he experiences great difficulty in doing this. After trying for some time Paul yells out 'I don't need to do this' and soon he walks off, slamming the door behind him (field notes).

Paul's experience of attempting to engage with the academic curriculum was associated with a deep sense of frustration and feelings of failure. His response is similar to the responses of some of his peers who also experienced difficulties in engaging with academic study such as "I'm so dumb" (Phillip) or "you're wasting your time trying to explain that to me" (Gary). Through processes of objectivation and externalisation (Berger & Luckmann, 1962) these experiences and responses form the basis of some young people's internalisation of themselves as students who lack the capacity for self-directed learning, leading to choices to leave school early.

It is well known that class is closely linked to early school leaving (Bradley, 2008; Fullarton et al., 2003; Piscitello et al., 2022), but this study expands this insight through its observation that class also played an important part in shaping how the decision to leave school early was experienced. For some young people, the decision to leave school early was interpreted as failure. This was evidenced in common statements such as John's comment that "last year I had a fair old dip 'cause you think 'we've only got a year to

go, what are we gonna do…how will I manage after school'? Just now we've started to get to know the teachers, become their friends. When you first come here you look at all those high kids. But now when you actually are here it's a different feeling, we don't feel so big". Similarly, Ryan asserted that "I have to make the best of it now" and Ralph that "it's too late to change anything". The belief that "it's too late to change anything" indicates that the option to stay at school was inconceivable to these young people. This finding provides a contrast to the findings by Nairn, Higgins & Sligo (2006) that all their participants, even those who left school, maintained a belief in returning to education. Most of the young people in this study who made the choice to leave school early did not plan to return to education but felt a strong sense of "it's too late to change anything", highlighting the importance of understanding the uniqueness and nuances of rural communities and how this shape young people's educational decision making (Fray et al., 2020).

Being from wealthier backgrounds shaped the experience of the decision to leave school early differently from young people from working class backgrounds. This group of young people were typically moving into a family business, while a few members of this group had contacts through their family which allowed them to enter jobs that they saw as providing opportunities and security for the future. The choices made by young women like Rose and Trudy to "take time out" and "perhaps work in the business" was facilitated by their families' ability to absorb them into the family business. Stephen contended that "I love the place. I want to be here for the rest of my life. I've got a job so I'm leaving. Mum and dad knew some people and that's how I got the job. I did the interview, and it went well and I got the job. It's a bit of everything 'cause they like to call it multiskilled. Good pay and later on they might put me through TAFE, to get some certificates. A job you will rather leave school for than a factory job". The secure future contemplated by Stephen stemmed not from the opportunities afforded by Hillsville's labour market, but from their local social and economic capital which provided insurance against academic failure. These stories highlight the importance of parental social and cultural capital (Corbett, 2013; Wierenga, 2011; Cuervo et al., 2019) in young people's educational decision making, however, they also provide evidence that parents can have a role to play in the decision to not continue on to further education and training in a rural context where continuing education means leaving one's hometown and family.

The group of young people who had decided to leave school early to work in the family business or other local businesses was only small but sociologically interesting because of the way in which they illustrate how neoliberal and traditional messages about self-responsibility can converge in a message about the importance of individual achievement. It was common to hear young people from all backgrounds talk about the opportunities for work in Hillsville. Nick and Thomas, for example, made the comment that "out here [in the country] it is still possible to work your way up" and both John and Phillip emphasised that "[in the country] it is still possible to create your own opportunities". This perception was reinforced both inside and outside the school environment. On one occasion a young man asked his teachers why he should care about

education as he already had an asset of four million dollars and was going to continue working in the family business as soon as he was able to leave school (field notes). Despite the real opportunities for a few young people from middle class backgrounds to take up permanent and secure work in the family business, this was not an option for the majority of Hillsville's young people. Nevertheless, these stories confirmed dominant constructions of the countryside as resourceful and resilient (Burchardt, 2002; Little & Austin, 1996) and contributed to the legitimisation of the choice to leave school early.

For other young people who had been academically successful during their time at school, their relationship with community and the land they lived on shaped their decision to leave the education system. Anita's story reveals how her decision to not continue on to years 11 and 12 is strongly embedded in the local, natural world and her commitment to agriculture. From Anita's perspective, a decision to continue her education would result in opportunities for well-paid and secure work, but also in a loss of the activities she considers essential for her health and well-being, such as identification with wide open spaces and feelings of belonging to the family farm. Anita's statement that "I don't think I will like leaving here to go to college. What will happen if I don't like it? What if I make the wrong choice? I just don't want to make a choice" reflects a sense of anxiety about a future that expects her to become a particular kind of metropolitan learner away from the place, people and animals she loves. With her story of deep attachment to place, Anita's story adds qualitative insights into the "high anxiety around transitions between Year 10 and Year 11" found to be experienced by some students living outside the major cities (ACER 2016, p. 19).

The role of social and cultural capital in perceptions of being a self-directed learner

What characterised the group of young people who positioned themselves as unsuccessful learners was the local nature of their social and cultural capital. Statements such as "I have to make the best of it now" (Ryan); "it's too late to change anything" (Ralph) and "What will happen if I don't like it? What if I make the wrong choice?" (Anita) indicate that the option to stay at school was inconceivable to these young people. Experiences of a disconnect between the academic curriculum and the young people's own everyday experiences of a more physical nature formed part of the explanation of their perception of themselves as unsuccessful learners and this perception was linked to the local nature of their social and cultural capital. For example, Shaun questions another students' decision to leave Hillsville to go to university in his comment that "It's just not safe anywhere else these days" which reflects his close relationship to the area through his tight-knit family connections. Similarly, Paul who is "born and bred here, never been out of the state" thinks that "it's actually really boring here" but would never want to leave because "all my family is here, I would always end up coming back here". These comments pinpoint the importance of social capital in facilitating knowledge of the local community and other community members, and the fear associated with

not knowing the area and people around you. For many of the young people, being a successful and self-directed learner was associated with a very different kind of social and cultural capital which perceived to be aligned with the demands of the academic curriculum, mobile and urban.

In contrast, young people who had a more optimistic perception of their future as learners and had made the decision to continue their education had access to a broader form of social and cultural capital. A broader outlook was developed where there were family practices of relating to the city and its people. Stanley explains that "I sometimes go to Springfield [nearest regional town], especially to see my aunty. I like the hustle and bustle of the city. I would rather live in a city. I like the noise. I love it. And I wouldn't get hay fever there...". The importance of social and cultural capital extending beyond the local community in producing familiarity and more positive feelings about the city is further encapsulated in Lauren's and Rose's stories. Lauren's account of often visiting her "family, Nan and Pop and my other Pop and some friends...there are always some of them I can stay with" and Rose's account of "mainly spending time with the family in the city...with all my family members there, my uncle, my Nan and a Pop and an aunty and another aunty and uncle in another city" show how experiences of rurality differed according to the nature of the young men's and young women's social and cultural capital. Emily's observation that "there's not much to do here" and her desire to "get out of here to see what the rest of the world looks like" also connects with her frequent visits to family members. Whilst Paul who is deeply attached to the area through his tight-knit social networks perceives the boredom of Hillsville as less risky compared to the unfamiliarity of the area beyond Hillsville, Emily sees the option of staying in Hillsville and enduring its boredom as being a riskier choice than not participating in the educational opportunities offered by the city because of her more extensive social and cultural capital.

The paradox of many of the young people choosing to leave school early despite their aspirations to obtain "a good job" through engagement with education can partly be explained by the discrepancies between their aspirations and the social and cultural resources they have available to realise those aspirations. The type of social and cultural capital the young people had internalised and valued is not readily apparent in the responsibilising ambitions of the new Education Act (2016). As this Act does not attenuate for place, the young participants' social and cultural capital was constructed as a liability which positioned them unable to make "responsible" choices for themselves (Mcleod, 2017), where the responsible choice is completing year 12 and continuing on to some form of post-compulsory education. These middle class and metropolitan messages contributed to the belief of some young people, only 16 years of age, that "it's too late to change anything" (Ralph) and their choice to leave school early with a sense of failure and anxieties about the future.

Discussion and conclusion

This paper has examined how social, cultural and economic dynamics in one rural community in Tasmania influenced a group of Grade 10 students' perceptions of themselves as future, self-directed learners. In doing so this paper moves beyond both the metrocentric focus in youth and educational research (Corbett, 2007; Corbett, 2013; Cuervo & Wyn, 2012; Farrugia, 2014; Fray et al., 2020; Wierenga, 2009, 2011) and the notion of rural people as a homogenous category. As such it contributes significant insights into the diversity and uniqueness of small rural communities and how these dynamics shape educational decision making (Corbett & Forsey, 2017; Fray et al., 2020).

A key finding of this paper is that although the young participants had internalised societal and educational messages that education was paramount to their futures, these messages also had unintended effects. They particularly contributed to the perception of failure as a reflection of personal capabilities rather than acknowledging the connection between educational failure and structural barriers (Beck, 1992; Giddens, 1991; Mcleod, 2017). Due to the internalisation of a sense of local identity some young people individualised the decision to leave school early and blamed themselves for being unsuccessful at school and for placing themselves in an insecure situation on the labour market. Feelings of failure and anxiety about the future highlight educational policies and their emphasis on self-responsibility and entrepreneurship deeply-felt fears of making the wrong choice reflected the young people's internalisation of the school's messages that a successful individual is one who continues on to further education as a pathway to a prestigious job (Hodgson, 2018).

At the age of 16, many participants in this study were choosing to leave school early despite their aspirations to obtain "a good job" through engagement with education, and they associated this choice with feelings of failure and anxieties about the future. These participants' local social and cultural capital played a key role in their perception of themselves as unsuccessful learners due to the lack of a broader form of social and cultural capital which was mobile and urban and seen to be more aligned with the demands of the academic curriculum. In contrast, young people making the decision to continue their education had access to a broader form of social and cultural capital which enabled them to make the choice to pursue further education and thereby position themselves as successful, self-directed learners. This finding emphasises the importance of facilitating meaningful and sustained interaction with individuals and educational institutions in larger regional centres in supporting young rural people's perceptions of themselves as successful learners.

Some findings of this paper are similar to findings by other work on educational choices in a neo-liberal context. For example, Nairn, Higgins & Sligo's 2006 study found that young people's recognition of the non-linear nature of school-work transitions was associated with uncertainty, but they nevertheless maintained a belief in their responsibility to craft their own identities and their participants, even those who left school, maintained a belief in returning to education. In this study, most of the participants did not plan to return to education but felt a strong sense of "it's too late to change anything" and "I have to make the best of it now". The difference may be attributed to the rural context of this study. The reinforcement of the idea of the self-responsible citizen through a different source of independent worker, the rural worker characterised by self-reliance and success through hard work, meant that the exposure of Hillsville's young people to the message of the self-responsible citizen was intensified. The combination of internalised messages of self-responsibility and the difficulties the young people experienced in fulfilling their high aspirations to themselves jeopardised their engagement with, and success in, education.

Areas of further research include further investigations of the embedded experiences of rural life, and how this influence educational decisions. Giddens (1991) assertion that place has become "phantasmagorical" does not fit the findings of research on educational aspirations and decision making in a rural context (Corbett, 2007; Morris, 2008; Schmidt, 2017; Wierenga, 2009). Place matters, and in the context of this study the young people's everyday experiences and the nature of their social and cultural capital worked to create or remove barriers to educational attainment.

The findings of this study suggest a challenge for the education system to address the way some young people's forms of social capital are constructed as a liability. The young people's own aspirations and desire to engage with further education is an encouraging finding. Initiatives to support aspirations may include programs designed to familiarise young people living in regional areas with larger towns and colleges. Regular contact with the nearest regional town and colleges may challenge the effects of responsibilisation by initiating a process of re-externalising, re-objectivising and re-internalising the capitals the young people know. As education systems and universities increasingly move towards student-centred, collaborative and community-based learning approaches (Shelley et al., 2019; Khan, 2019; Andersen & Feldstein, 2021), the new networks and knowledges obtained in these processes by both schools, students, and families might support young people and their families to embrace opportunities for further education. Making sure the young people are aware of their post school options and pathways back into education might also challenge the mindset of "I have to make the best of it" and encourage engagement with future education and training, including university study.

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Investigating Syrian refugees' education in Jordan: From policies to pedagogy

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Article Info

Abstract

This study critically examines the gap between policies and practices in the context of refugee education in Jordan. To understand the extent of the gap, this paper analyzes the official policies that outline the priorities of refugee education and compares these results with the perceptions of teachers of refugees with a focus on the types of curricula refugees study and the professional development programs these teachers receive. This study casts more light on this area by employing a mixed methods approach, namely, content analysis and conducting an online survey with the teachers of refugee students. This study found that the education of refugees should be reformulated in terms of appointing qualified teachers who could adapt the curriculum according to the refugee students' levels and needs. This study revealed that there is a gap between what policymakers think and teachers' perceptions of education. The latter highlights the importance of advancing education when strategizing future policies on refugees' education.

Introduction

The 21st century has witnessed many fluxes of refugees. The Syrian refugee crisis is considered one of the most severe and complex humanitarian emergencies after violence erupted in Syria in 2011, leading to an unrelenting civil war. After a decade into the Syrian crisis that resulted in the death of hundreds of thousands of people and made more than 12 million Syrians homeless (Baeyer, 2017), education for these children has been in a crisis. According to Alshoubaki (2017), four million Syrians became refugees in Arab countries and Turkey. Jordan received a large percentage of refugees that has reached an alarming number of 1.3 million people, 647,148 of them registered by the United Nations High Commissioner for Refugees (UNHCR). This, in turn, put an additional burden on the Jordanian government. Specifically, the schooling system has been overburdened and could not absorb all school-aged refugees. This threatens the quality of schooling. Since 2013, five response plans have been formulated, and there are several studies that have investigated whether these strategic response plans have achieved their targets.

General education principles in Jordan focused on the principle of *Everyone has a right to a free and public education*, the educational services in Jordan are introduced to everyone equally and without any discrimination based on sex, language, ethnicity, and religion. The educational system in Jordan covers kindergarten to twelfth grade, including basic (primary and middle schools) and secondary schools. The basic school consists of grades 1-10. Basic schooling is free and compulsory for all Jordanian students. At the end of the tenth grade, the scores of each student for the previous three years (8th, 9th, and 10th) are combined to determine in which secondary stream (track) students will continue. Usually, students' preferences are considered, but the final decision rests with the Ministry of Education. The secondary cycle (grades 11 and 12) is divided into two main streams: one being an academic stream. This stream ends with a general secondary education examination called *Tawjihi*. The other is the applied (vocational) stream. This track consists of specialized vocational courses and prepares the student for skilled labor through apprenticeship programs, which are run by the Vocational Training Corporation and the Ministry of Education (Al Jabery & Zumberg, 2008).

The overall context of schooling of refugees in Jordan

Jordan hosted 1.3 million Syrians, of which 661,997 were registered by the United Nations High Commissioner for Refugees (UNHCR: Queen Rania Foundation, 2017). According to the annual UNHCR report in 2022, 676,606 refugees have been recorded. This means Jordan has the second highest number of refugees per capita ratio in the world. 80% of the refugees in Jordan live in the host community (about 542,855), and the remainder are in camps. About 36% of the registered Syrian refugees are school-aged children. Therefore, since the outset of the crisis, official authorities in Jordan, such as the Ministry of Education (MoE) and the Education Sector Working Group (ESWG), have worked collaboratively to support capacity building in the public education system for current and

future emergencies. These bodies have formulated a response strategy to ensure continued access to quality public education in safe environments. It is worth noting that ESWG includes members from UN agencies and national and international non-governmental organizations. The overall objective of the response strategy is to reduce educational barriers and facilitate Syrian children in returning to schools in Jordanian host communities. Therefore, Syrian school-aged refugees were provided with the opportunities to be enrolled either at United Nations Relief and Works Agency (UNRWA) schools or public schools of the MoE in the host communities. In addition, schools were established in the camps for Syrian refugees.

Informal education programs were designed to help students perform better at school and to provide equal educational opportunities to those who cannot access formal education. According to MoE reports, 70,000 Syrian refugee children participated in these informal programs. Lee (2016) estimated that 50% of refugee children attended primary education. However, attendance declined when learners failed to complete their respective school grades. Likewise, Al-husban and Shorman (2020) and Christophersen (2015) stated that despite the desire and generous efforts exerted by the Jordanian host authorities to provide education for Syrian refugees, about 40 percent of Syrian school-aged refugees in Jordan either did not receive formal primary education or aborted their studies after only having attended a few grades because of poverty, child labor and marriage. The following table shows the number of Syrian refugees enrolled over grades in schools in camps and the host community from 2017- 2020, according to MoE statistics:

Table 1: The number of Syrian refugees students in schools of camps and the host community from 2017 to 2020.

Grade	2020	2019	2018	2017
KG2	5664	5172	5120	4602
1st grade	14170	15266	18385	21044
2nd grade	15081	15429	18796	21484
3rd grade	15137	15850	19949	18845
4th grade	15720	16170	17251	18101
5th grade	16713	14545	16621	16130
6th grade	14461	13847	14414	10837
7th grade	13738	11934	9538	8686
8th grade	11528	7594	7441	7757
9th grade	7320	5911	6565	6205
10th grade	5682	5078	5143	4855
Total	135214	126796	139223	138546

The decrease in the number of students per grade each year, especially in the upper primary stages (7th, 8th, 9th and 10th grades), led to an assumption that in spite of the intensive efforts to provide Syrian refugees with quality education, they did not attend classes regularly, did not want to attend or they were forced to leave schools. This assumption was supported by the Education Sector Working Group (2015) which attributed the reasons for the low formal attendance rates among Syrian children to inaccessible curricula which Syrian students could not deal with. Therefore, the unavailability of accessible textbooks coupled with learners'

absence from classes could be the result of teachers' unpreparedness in dealing with such learners. Teachers of Syrian refugees were chosen from retired teachers or from those waiting to be appointed by the MoE as 'substitutes'. Therefore, it could be inferred that the teachers of refugees either continued with teaching traditionally without taking the psychological status of refugees into consideration or they did not receive any specialized training in pedagogy, assessment, and psychological counselling in dealing with traumatized children. As a result, Syrian refugees or their parents found that it is better for them either to work to meet the requirements of their family, especially as adults are prohibited to work in the job market in Jordan, or that female Syrian refugees marry prematurely (Cohen, 2019; Alshoubaki, 2017; Jalbout, 2015).

To investigate the above-mentioned assumptions, it is of paramount importance to examine the efforts of the Jordanian authorities in leveraging the quality of education for refugees, particularly considering that Jordan is not a signatory to the 1951 convention on the status of refugees. Likewise, there are no national regulations for the protection of refugees. Consequently, Jordanian authorities depended on the law of residence of foreigners for dealing with refugees. The effect of the Syrian crisis in forcing more than 1.3 million refugees to flee to Jordan and the education of refugee children came under scrutiny. It can be said that providing education in such an emergency should be continuous and holistic and demand support from Jordan and other surrounding countries. Therefore, several documents were formulated to plan the procedures of how to guarantee quality education for refugees like response plans and disaster risk reduction. This paper investigated national policies by analyzing the objectives and impact of implementing them and their role in transforming policymakers in Jordan from embarking on mere emergency work to providing a more sustainable long-term approach to educating refugees' children. This investigation examines some of the advantages of such educational initiatives in both refugees' camps and schools in the host communities.

Literature review

A decade after the outset of the Syrian crisis, it became obvious that this crisis has long-term consequences in all respects, of which refugees' displacement can be considered as one consequence. Therefore, education could be an essential weapon to ensure the legitimate empowerment of refugees who can choose to remain in the host communities or return to their homeland. But leaving refugees uneducated could lead to severe social and economic ramifications (Beste, 2015).

The topic of education in emergencies becomes prominent in this situation, as education seems to be the only response to let refugee students feel they can lead normal lives and internalize hope for a better future. In order to manage the process of providing education in these emergency circumstances and ensure it is at an acceptable level, it becomes a priority to provide students with the skills, values, and knowledge that make them able to adapt to international demands. The United Nations High Commission

on Refugees' (UNHCR) Regional Refugee Response Plan has been formulated to make sure that refugee learners are provided with quality education. Jordan is one of the states that formulated this plan which has been revised regularly. The Jordanian Education Sector Working Group (ESWG) contextualized the Inter-Agency Network for Education in Emergencies (INEE) Minimum Standards to education to monitor and implement education interventions for refugees. This analysis aims to serve the response to the ongoing Syrian refugee crisis as an essential preparation for any future crisis and to assist the education sector to minimize gaps in quality services provided to Syrian learners. Likewise, the Jordanian authorities responded to this unprecedented crisis by formulating two policies, namely, the sixth regional response plan overseen by UNHCR, and the national resilience plan (NRP), under the patronage of the Jordanian government. The two policies were issued to reduce any kind of interference with each other's work. According to Shteiwi et al. (2014), the 6th regional response plan (RRP6) is a project of the UNHCR that mainly provides relief to Syrian refugees themselves.

On the other hand, the national resilience plan (NRP) is a governmental response to the Syrian crisis under the direction of the Ministry of Planning and International Cooperation. NRP is a three-year plan intended to provide short-term emergency aid to SR. It was established in 2013 in order to prevent the deterioration of Jordan's development achievements in the face of the Syrian refugee crisis. Many groups emerged from the RRP6 and what is important in this study is the work of the education working group to ensure uninterrupted access to public education for displaced Syrian children across the country, including those in refugee camps. This means that ESWG enhances the capacities of the Jordanian educational system, through the provision of additional learning to disadvantaged Syrian learners in remedial classes, re-training of Jordanian teachers, and ensuring that SRs have equal access to schooling. Since 2014, four national response plans have been issued, with education being one of them (Naseh et al., 2020).

In 2014, the government of Jordan established the Jordan Response Platform to the Syrian Crisis (JRP) as the main strategic initiative for refugee response. This initiative, supported by 11 task forces in 2015, undertook a vulnerability assessment and prepared the JRP 2016-2018 document. The plan comprises two pillars: resilience and refugees. It is intended to support both Syrian refugees and Jordanian host communities and institutions (Jordan Response Plan, 2015) in their responses to the refugee crisis. Simultaneously, UNICEF partnered with several NGOs on the No Lost Generation initiative, which aimed to increase enrollment, attendance, remedial resources, and access while also providing a protective environment within schools and broadening opportunities by teaching life skills and providing vocational training (No Lost Generation, 2015). To combat overcrowding issues, Jordan has implemented a double-shift system in 209 Jordanian public schools to accommodate more students. Ministry of Education (MoE) has also trained over 5,000 teachers, facilitators, counsellors, and school staff in psychosocial support and life skills and implemented non-formal and informal education systems to target students who have been out of school for longer

than three years for over 77,000 students (Jordan Response Plan, 2017). MoE also hired about 8,900 new teachers and provided classrooms for 28 schools (Christophersen, 2015). Through these efforts, MoE was able to enrol over 126,000 students in Jordanian public schools in 2016. Despite this, over 75,000 Syrian children are out-of-school, and many who attend school do so on a part-time basis (Sieverding et al., 2018).

In 2016, Jordan received support from international organizations to open public educational access to all children in the country, rather than just Jordanians according to the JRP 2017-2019. This plan aimed to create more learning spaces, include remedial classes for students who have missed large chunks of the school-day, provide access to certified alternative education opportunities, and offer teachers with professional development opportunities. JRP also hoped to expand access to universities and community colleges (Jordan Response Plan, 2016).

The focus of the third JRP was on quality and on combating the challenges facing Syrian students, some of which are caused by the implementation and expansion of the double-shift schooling (Jordan Response Plan, 2018). JRP 2020/2022 focused on translating the commitments and pledges into real and track-able support. That is, the top priority of JRP 2020-2022 is to empower the systems to address such challenges by showing an enduring commitment to build an integrated multi-year framework to most effectively respond to the Syrian crisis in a transparent, collaborative, and sustainable manner in line with the Global Compact on Refugees and the 2030 agenda.

Thus far, JRP led by the government of Jordan present a genuine model of a strong longstanding partnership between the host community and the NGOs, and offer planned interventions to improve the quality of the lives of the SR, especially their education. This could be the criterion that identifies if what is happening is a matter of implementing the content of the plans, and if the policies are able to determine Syrian refugees' priorities besides rapid access to education.

Schooling for refugee children and young people: between the urgency of access and the lack of quality

The overflow of Syrian refugees in Jordan has drained the resources and services of the country, particularly the education system. The percentage of enrollment of Syrian refugees within the education system has exceeded its limits. According to Wahby et al. (2014), the Ministry of Education registered 120,555 Syrian students, 20,174 in side camps and 100,381 outside camps. Another study in 2020 stated that 83,232 Syrian students enrolled in public schools in Jordan, which constitutes 44% of the total number of SR students (Mrayan & Saleh, 2020; Younes & Morrice, 2019). The MoE stated that there were 35,691 SR in three camps: Alzatari, Mkhaizen, and Mrejeeb Alfhood, and 108,200 SR students at schools in the host communities; only 38,923 SR students have been integrated with Jordanian students. Table 2 displays the distribution of students over grades in camps and in public schools:

Table 2: Numbers of students in camps and in the host community in 2021.

Grade	Camps	Second shift schools in host communities	Integrated with Jordanian students
KG2	2959	2545	160
1st grade	3908	7975	2287
2nd grade	3978	8102	3001
3rd grade	3546	8471	3120
4th grade	3663	8616	3441
5th grade	4372	8360	3981
6th grade	3683	7008	3770
7th grade	3029	6716	3993
8th grade	2334	5402	3792
9th grade	1493	3105	2722
10th grade	1163	2232	2287
11th grade	933	565	3402
12th grade	630	180	2967
Total	35691	69277	38923

As described in Table 1, the rate of dropping out of school is annually increasing. Table 2 indicates that Syrian students' enrolment did not persist over grades. To enhance the percentage of enrollment on the part of Syrian students, the Jordanian authorities waived tuition fees for all Syrian children and encouraged a double-shift system in its public schools in both governorates and camps. However, this did not lead to any of the envisaged outcomes. On the contrary, according to Sieverding et al. (2018), Syrian refugees had depleted education outcomes in comparison with Jordanians, and faced several challenges in either enrolling or persisting in schools due to financial pressures upon their parents. They had to work to meet the daily demands of their parents, with instructional obstacles having posed another challenge to refugees' learning. Instead, many of them were forced to leave schools at different times before and after fleeing from their country which created some language differences as well as a low quality of instruction due to the limited professional development of teachers, large class sizes, and curricula that may be difficult for refugees to relate to due to cultural and historical differences (Youne & Morrice, 2019).

In Jordan, Syrian students faced issues related to the lack of skills that helped them to cope with the demands of the subjects in their grades, especially teachers not making time to build refugee students' skills due to the limited time for instruction in double-shift schools. Several studies stated that shift schools are associated with lower quality of education globally, and according to Table 2, the highest number of Syrian refugees attending double-shift schools was about 69, 277 in 2021, according to the MoE in Jordan. Likewise, Syrian students faced some discrimination and bullying,

especially at the beginning of the crisis, so some parents preferred to marry their girls to avoid such problems and because they could not afford their expenses (Sieverding et al., 2018). Likewise, Majthoub (2021) stated that school enrollment and Jordanian educational services for refugee children were adversely affected by policies besides other barriers like child labor, early marriage, limited skillful and qualified teachers. It also highlighted a gap between educational policy development and the implementation of these policies. On this basis, the author recommended providing refugee children with a good quality education in an inclusive and safe learning environment.

School curriculum and teachers

Refugees who are able to enrol in schools after arrival in the host country faced additional challenges with the school system itself that served as barriers to progression or even persistence in education. Globally, instructional challenges facing refugee children include language differences and low quality of instruction in refugee schools due to the limited training of teachers, large class size, and curricula that may be difficult for refugees due to cultural and historical differences (Naseh et al., 2020). This idea has been reinforced by Culbertson and Constant (2015), who stated that despite the efforts to ensure access for refugee children at schools, less than 60% of refugee children attended schools due to social reasons, economic, and teacher characteristics and the nature of the curriculum.

For Syrian students, the Jordanian curriculum may be difficult to adjust to, especially science, math and English subjects. The language of instruction being English and the knowledge of other subjects like math and science rendered the curriculum more challenging. In this regard, Sieverding et al. (2018) investigated the perceptions of SR refugees of the textbooks they studied. Participants reported that they did not understand the subject at hand or that it took them more time to understand the topics especially in English. Respondents contrasted the level of English expected in the Jordanian curriculum with the curriculum in Syria, where they said English was not introduced until later in their schooling careers (Sieverding et al., 2018; Achilli, 2015).

That Jordanian authorities prioritized quality education regarding Syrian refugees education since the outset of the crisis, remains outstanding. However, all these efforts and projects implemented did not necessarily solve the refugee crisis, and it can be inferred the same trend recurred over several years. A large number of students attended schools in the lower primary stage from 1st grade until 5th or 6th grade, and then Syrian refugees started to drop out, as indicated in Table 1. Therefore, this study tries to go deeper to investigate the targets and the priorities of the official plans and policies Jordanian authorities formulated to leverage the level of Syrian students' schooling and keep them sustained till the end of the primary stage. Needless to say, COVID- 19 exacerbated the problem due to the limited resources for using online learning during the school closure from March, 2020 till mid-2021 due to technology barriers as well as the economic challenges of losing some of the international aid and increasing unemployment.

These effects of COVID-19 added a layer of complexity to the already profound challenges of providing education to refugees.

The perceptions of Syrian refugees' teachers on the effect of implementing these policies in relation to Syrian refugees' quality of learning and the role of textbooks and teacher education contributed to minimizing the refugees' educational crisis. An in depth understanding of these two components may inform and deepen not only ones' familiarity with the efforts of policy makers in Jordan, but also the overall initiatives of stakeholders, and partners working with Syrian refugees.

The significance of the study

Jordan has continuously encountered enormous struggles to face the non-stop fluxes of refugees since decades, and the Syrian crisis has exacerbated the challenges and has put extra huge demands on its strained capacity to make education accessible for students of all ages. However, Jordan is struggling to keep up with the demand on education by the massive number of refugee students either Syrians or other nationalities. Thus, education of refugees should be thoroughly evaluated in terms of the authenticity of the policies, statistics, and perceptions of teachers of refugees of the services and challenges provided by the authorities so as to design future plans by taking into consideration the outcome of this study. Consequently, mistakes would not be repeated, new lessons learned how to leverage the education of refugees, and challenges solved to reach the possible outcomes. This study provides a comprehensive picture about education in emergencies in Jordan for practitioners, researchers and policymakers to be familiar how to investigate different variables in varied ways.

Methodology

To consider the focus of the policies and response plan of the Jordanian authorities towards the SR challenges and to what extent they have been translated into practice and the alignments between the two perspectives will gain priority in this study. A mixed-method approach was employed to synthesize two strands of data obtained from the review of documents containing the plans and policies facing the SR problem in Jordan, and complementary data were gathered from an online open-ended questionnaire conducted with teachers of Syrian refugees in response to the following research questions:

- What do response plans (policies prepared by the official authorities) attempt to achieve regarding the quality of education in relation to teachers and curricula of refugees?

- What are the perceptions of refugee teachers in terms of the curricula and the efficacy of training courses they received in empowering them to teach refugee students?

- Are there any gaps between the response plans' targets and teachers' perceptions of refugee students' education?

Sampling, coding and content analysis of policies and response plans to the SR, and their ability in facing the challenges that SR students encounter in continuing their education, particularly in terms of teacher development and curriculum types were considered. Response plans for the years 13/15, 16/18, 18/20, and 20/22 were investigated together with developments in envisioning their priorities and targets, how they deal with the issues of curricula for SR, and their teachers, and teacher empowerment to deal with SR. Analyses focused on the following: the addition, deletion, or modification of objectives and procedures in presenting these issues specifically, and comparing these data with the findings that researchers identified with primary data that was collected by conducting an online open-ended question survey solicited from 112 SR teachers about their satisfaction and perceptions of the services provided by the authorities that seemingly translate policies and plans into practice. 47 participants, who completed the open-ended survey, taught in public schools, mainly in double-shift schools, and 65 teachers of SR teachers taught in Syrian camps of which 59% of them had less than 5 years' experience, and 41% of them had more than 5 years' experience.

Selection of the SR teachers focused not only on the convenient access to schools of SRs, but also the access of the knowledgeable teachers with teaching SRs, to provide in-depth information regarding their experiences of teaching Syrian refugees and the textbook at hand. 112 teachers who completed the online open-ended survey had experience ranging from one to more than five years of teaching experience. 65 of them work as SR teachers in camp schools and 47 as SR teachers in the second shift schools in the host community.

The online open-ended questions were as follows: Do you find textbooks that you used to teach SR difficult, and to what extent? And why? Do you receive training courses while working as an SR teacher? Identify their topics. Over years of working with SR students, do you think the official procedures regarding empowering you as SR teachers are dramatically developing or do they remain the same?
Official approval was granted by the Ministry of Education to conduct this research and collect data online from teachers in public schools in the host community and in camps.

Findings and discussion

To identify the data included in the JRPs since 2013 regarding curricula and teacher development, the qualitative analysis of the JRPs could be done in the following manner:

Table 3: Overview summary of the main domains of National Response Plans from 2014-2022 to face the challenges Syrian refugees encountered.

No.	Document title	Objectives related to curricula and teacher development	Procedures to attain objectives	Notes
1.	Jordan Response Plan 2015	Strengthen the capacities and resilience of the education service system in the national system by ensuring sustained quality educational services for all refugees	120,000 SR students were enrolled at schools, 100,000 in host communities and 20,000 in camps, an increase from 2013 which indicates positive trends for enrolment rates. Over 1,000 teachers and staff received training on psychosocial support, child-friendly teaching techniques and coaching. 70,000 SR are outside any type of formal or non-formal schooling.	The focus was to increase SR students' access to schooling in any form: formal, informal, non-formal, so double-shift schools had been established. There is a focus on training teachers on the psychological perspectives but without any emphasis on how to adapt curricula and their suitability to SR student's needs especially in the English language subject.
2.	Jordan Response Plan 2016/2018	Boosting the capacity of the education system with much needed learning spaces, remedial/ catch-up classes for those children who have missed out on weeks or months of schooling, and access to improved and diversified certified alternative learning opportunities, and delivering capacity building of teachers to safeguard the quality of education	The major procedures focused on providing enough space to enroll SR students and to recruit 3,446 additional teachers who often lack sufficient preparation and experience to deal with challenging classes. Classes became crowded to 49% and 98 schools changed to double-shift schedules. This reduced the quality of education. Therefore, 2,900 teachers trained about how to deal with students in emergencies settings.	It focused on the quantity domain ratio of classes to students; ratio of students to schools; and ratio of students to teachers. No attention is paid to curriculum and textbook, in spite of establishing remedial programs for students who lost weeks or months of schooling, this means they could not study the official textbooks as they do not have the necessary skills and knowledge to cope with them.
3.	Jordan Response Plan 2018/2020	Ensuring sustained quality educational services for children through a holistic, inclusive and equitable approach, improving capacities of education authorities to the continuous delivery of quality inclusive education services, and improved provision of educational facilities	By focusing on providing Syrian children with quality and relevant education by establishing more schools in camps and adopting double shift system at schools, and enhancing in-service training opportunities for public school teachers. Providing financial supports to familiies to cover the expenses of education to avoid any barrier to education like stationary and transportation.	It is clear that curricula and textbook and the idea of adapting them to SR students' needs is not one of the priorities in spite of its importance.

		sustained access to adequate, safe, and protective learning spaces		
4.	Jordan Response Plan 2020/2022	The main aim of the plan is to improve education access, equity, and quality for all children. It focuses on the pre-primary stage, primary, and teacher development, and curriculum development, all of these priorities are in line with the perspectives of 2030 agenda	From 233,000 SR students, 136,400 SR students enrolled in formal education in 2019/2020, 86.6% of the attendance of SR in the primary stage. For learning, the majority of public in-service teachers have taken induction training or in-service training, with around 6,700 school teachers provided with professional development opportunities at directorate and school levels, including training on pedagogy and learning support.	No practical actions and procedures regarding curriculum development to meet the needs of SR students, training of teachers did not focus on traumatic issues, there is no mention to the double crisis of the pandemic COVID-19 and the educational effects on their performance that started to be improved as the plan stated at the beginning of 2019.

The above analysis reveals that all response plans had two main pillars over a decade: to ensure the education system could absorb SR students without affecting the quality of education, and procuring qualified teachers to teach SR students. Despite the challenges that Jordanian authorities have faced to make these targets authentic, these authorities seemingly did not pay much attention to the attributes of teachers they recruit, and to the suitability of curricula and textbooks for SR students to learn. Also, they have not taken into consideration that since 2016, the MoE started to perform remedial programs for those who missed schools for weeks or months, because their age could be in line with a specific grade, but they do not have the necessary competencies to meet the requirements of that grade, so they need remedial preparation before moving to their actual grades. This entails that SR students needed textbooks that are planned based on their cognitive and psychological needs. It can be said that none of the response plans formulated by the Jordanian authorities paid any attention to the importance of developing textbooks appropriate to the needs, skills, and abilities of SR students. It is expected that SR students would be able to take the national examinations and to be able to join the tertiary education. This initiative seems plausible but investigating the statistics by the MoE revealed that out of 143,891, only 3,777 took the national exam, and 1,670 passed it (about 44.2%). These results reflected a deficit in teachers' performance and the inaccessibility of textbooks used.

To identify if the targets and objectives identified by the authorities in the response plans had been achieved in the field, researchers collected data from a group of the direct beneficiaries: SR teachers either in the camps or at double shift schools. 112 SR teachers completed the open-ended survey to investigate their perceptions regarding the suitability of textbooks and the efficacy of training courses they have taken to be able to deal with SR students, especially those who witnessed events that caused psycho-social effects, so those teachers need different training support in dealing with SR students.

Table 4: Teachers' perceptions of the training courses they took, and the suitability of the textbooks.

Open-ended question survey	Teachers' responses
1. To which extent do you think the textbooks that SR students study are difficult? And why?	69 teachers stated that textbooks are difficult, and exceeded the skills and the abilities of SR students, 28 of them said the textbooks are difficult in more than 50%. The reasons of why they think textbooks are difficult: the conditions in the camps, no interest or motivation on the part of students, they are not suitable for students, some subjects are difficult: math, science, and English language, the problem is not in the textbooks but in students' ability of reading and writing, most of them did not have these skills, their parents did not follow up with them because they are illiterate, or busy in their work, they did not receive quality education in the lower primary stage, they did not focus.
	43 teachers said the textbooks are not so difficult and students could get high marks, there are no differences in the academic achievement between the Jordanian and the Syrian students especially in Arabic language, social education, religion subjects, they are diligent and strive to study and complete to Tawjih exams (national exams).
2. During your teaching of SR students, what are the training courses that you have taken?	24 teachers out of 112 said they have taken several training courses, one of them focused on how to deal with Syrian refugees psychologically, inclusive education, designing and ensuring safe environment.
	4 said they did not receive any training course.
	84 teachers said they took training courses focused on pedagogy, curricula, and online learning.
2. What is your opinion of the procedures taken by the MoE to develop you professionally as a teacher of SR students.	25 teachers of SR think that they needed more substantial procedures to empower them to be able to deal with refugees effectively, influence them, meet their needs, desires, and motivate them to study, relieve their sorrow, pain, and negative feeling towards life. One of the teachers said" I received training as a teacher, but not as a teacher dealing with kids who faced severe challenges. The traditional ways of teaching could be acceptable with students in normal situations but for refugees, I need different approaches and knowledge to know how to deal with them, motivate them, attract their attention, and help them mitigate their suffering."
	87 teachers said that they were satisfied with the procedures taken by the MoE in training them and being able to teach effectively. They stated that the procedures are enough and effective or that the training courses developed their ability to teach.

Findings related to teachers' perceptions revealed that teachers were aware of the problems they faced due to learning the current textbooks. 69 teachers perceived that the textbooks are difficult. The difficulty is confirmed not because of the unsuitability of the textbooks but because of the academic levels of students in having faced difficult situations, discontinued their education, and lack of essential skills that helped them to perform better, like reading comprehension and a scarcity of supporting families, at times illiterate or busy in their work to meet their families' requirements. In this context, teachers, especially English as a Foreign Language (EFL) teachers, should be familiar with how to adapt the textbook according to the needs of students since teachers invariably attempted to attain the desired learning outcomes.

Regarding the second question, the MoE and its partners mainly focused on pedagogy and teaching online, and how to teach newly developed curricula without paying much attention to the psychological perspectives of learners' personalities and how to meet these perspectives, change their negative attitudes to life, and learning by the host community. It is significant for teachers to acquire such skills because students need supporters and motivators, and facilitators of their learning rather than traditional teachers who deliver information and focus on completing the textbooks. Instead, teachers have to ensure that students comprehend their work, and if students could not learn, they have to look for the reasons and try to solve their challenges or overcome constraints to their academic achievement.

Teachers' replies to the third question showed that unawareness of some teachers of what they needed to teach refugees, whom they consider similar to teaching non-refugee students, thus ignoring their need to be more psyche-socially supportive, to pursue intensive follow-ups, and to emphasize the creation of positive attitudes to everything in their new lives in the host country. The perception that most teachers had seemed to be in line with the response plan, which focused on two main domains: increasing SR students' access to primary school and leveraging the quality of teachers through training provision. This inference ignored the type of training and professional development teachers needed to influence their suffering students to meet their pedagogical needs.

In response to question three, whether there are any gaps between the response plan targets and refugee students' teachers' perceptions of their education, the following can be said:

It is necessary to reflect on the target of several response plans formulated by the Jordanian authorities, which focused on attaining high access to education and training teachers and providing quality education to SR teachers. However, interviewees stated that textbooks are somewhat unsuitable for SR students not because of the nature of the textbooks but due to not having the necessary skills to learn from such texts due to cognitive deficiencies, or because of their families' social deprivations, or because of a lack of interest and motivation to learn effectively.

Teachers perceived the unsuitability of textbooks in leveraging SR students' level of learning because of cognitive challenges. The response plans did not pay much attention to the latter, and it can be conceived that there is a gap between the perceptions of teachers of SR and the Jordanian authorities, who seemingly have conflicting ways of seeing things. Teacher training is one of the main domains of the response plans, and most interviewed teachers stated that they received several pedagogical training courses. So, it seems there is no gap between teachers' perceptions and the themes of the response plans. The congruence between the two dimensions could be described as superficial and nonsystematic. Most interviewed teachers mentioned the training courses they took and expressed satisfaction with the procedures to empower them to deal with SR students. The response plans focused on training teachers to make sure teachers provide SR students with quality education without deterring standards and benchmarking that measure this target. Over a decade, the emphasis of the Jordanian authorities was to enrol all the school-aged Syrian children, but this, in turn, needs appropriate textbooks that improve their abilities and skills to be up to the level of their counterparts in the host community. In addition, recruiting, supporting, motivating, and facilitating teachers who focus on the affective and psychological needs of SR students are also of paramount importance. What the Jordanian authorities did was to enrol SR students who were of school-going age, and recruited teachers either as substitutes or retired teachers (Naseh et al., 2020; Saleh et al., 2019; Salem, 2018). As a result of recruiting additional teachers in dealing with such a crisis, they could have enrolled SR students in schools. However, they could not guarantee that students remained at school to achieve the targets of the plans. Some of the reasons for preventing continuity of learning could be attributed to the types of teachers and the inaccessibility of textbooks for SR students.

Reviewing several reports, studies, and papers regarding the efforts exerted by the Jordanian authorities, Majthoub (2021) and Saleh (2019) revealed that providing access to formal education for 14,381 Syrian students is considered a remarkable accomplishment of the education response plans since 2014. However, having at least 60,000 – 97,000 Syrian children out of school is a critical issue after a decade of working to respond to this challenge considered a priority by the Jordanian authorities (Jalbout, 2015; Culbertson et al., 2016; Salemi et al., 2018). This challenge could be justified because learners over the world do not need only a class to sit in. They need a teacher who caters for their needs and interests, solves their pedagogical problems related to their achievements, and produces relevant textbooks that are aligned with their skills and abilities.

Reports and studies like Majthoub (2021), Cohen (2019), Sieverding et al. (2018), Sweis et al. (2016), and Achilli (2015) examined this issue and revealed that Syrian school children's learning levels are less than three years behind the appropriate level for their age groups, and so their attendance rate has not reached the universal acceptable level in spite of the plans, projects, policies, and strategies that have been executed since 2013. This finding is raising a question regarding the lack of quality of education that is provided to SR students, in particular regarding lessons

learnt from having analyzed such plans and reports and having listened to the direct beneficiaries as they are in close contact with those children and know what they desire, what motivates them and what forces them to stop attending classes. Similarly, Alkhawaldeh (2018) and Saleh et al. (2019) pointed out that, according to teachers, the lack of achievement and learning outcomes, absence of sufficient teacher training, behavioral difficulties and overcrowded classrooms exacerbated the crisis of learning experienced by Syrian refugee children. According to the refugee parents, most challenges focused on a deterioration in the refugee students' instructional achievement, insufficient school assignments, and carelessness of the refugee students in learning school subjects such as math and English.

Conclusions and implications

It seems that managing the crisis was based on finding emergent and short-term solutions. Finding enough spaces at schools and teachers for refugees were the top priorities of the MoE and NGOs. These procedures could be acceptable at the beginning of the crisis, but after all these years of efforts, plans, and procedures to enrol and sustain SR learners in the education system, more sustainable solutions should be at the top of the policymakers' agenda. However, the result is still having lots of school-aged children out of schools or dropped out of school, now is the right time to strategize long-term development planning of how to manage the education of refugees in a more sustainable way.

Some of the reasons are related to the unpleasant effects that the findings of this study highlighted and related studies. That is, ensuing plans and policies should depend on the ideas of the direct beneficiaries regarding the needs and interests of refugees, thinking of the cognitive, affective, and psychosocial reasons that demotivate students from attending schools regularly. Taking these reasons into consideration when formulating future plans and policies, especially the issues related to schooling: quality of teachers' training pedagogically and sociologically and adapting textbooks should be the future priorities, which could ensure the attainment of the desired benefit from the funds of the NGOs, particularly that funding will not be ongoing. Therefore, focusing on sustainability in dealing with the schooling of refugees is a matter in the following years to be addressed to improve the livelihoods of SR students not only in Jordan but also in the region. This means contributing to their future in education and not in labor or early marriage. Teachers and curriculum are key factors in achieving this trend. A regional framework for refugee education should be formulated because the number of refugees at school age has been increasing during the last decade, either from Syria or Middle Eastern states. Thus, urgent or humanitarian plans are no longer sufficient in dealing with the refugee issue.

This issue also needs further investigation and research with a large sample, including not only teachers but also students, their parents, and officials, to shape a comprehensive vision of what should be planned in the future for refugees to be agents of positive change.

To the best of the author's knowledge, this academic study is the first of its kind in Jordan. There are not many articles of this kind published except reports by NGOs. This study covers all the main response plans and teachers' perceptions of refugee education. Therefore, this study should help other researchers in conducting further studies, especially in the case of revision and development of the current textbooks. They could assess how refugee teachers can adapt the curriculum in light of students' needs, and this study could help international agencies and educators in conducting comparative studies.

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Appendix

Open-ended questions to investigate refugees' teachers' perceptions

1. To which extent do you think the textbooks that SR students study are difficult? And why?

2. During your teaching of SR students, what are the training courses that you have taken?

3. What is your opinion of the procedures taken by the MoE to develop you professionally as a teacher of SR students?

Discharge of pedagogic duties: a bootstrapped structural equation modelling of teachers' use of research materials in school libraries

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Article Info

Abstract

A large body of literature focuses on teachers' service delivery and other related concepts. However, most of them have been judged to be generic. Measuring teachers' service delivery generally does not picture events in specific areas. This study used a bootstrapped structural equation modelling to analyse how teachers' use of library research materials (ULRMs) predicts teachers' discharge of pedagogic duties across seven areas. A structured questionnaire collected primary data from 2,406 teachers and 7,218 students who consented and participated voluntarily. Exploratory and confirmatory factor analyses were used for dimensionality and goodness of fit tests. Convergent and discriminant validities were achieved based on average variance extracted (AVE) and squared correlation. The internal consistency measures were Cronbach's alpha, McDonald's Omega, and composite reliability. Results of the study showed among others that the teachers' ULRMs is a significant direct predictor of teachers' lesson preparation (β = .48, p < .001), use of instructional materials (β = .53, p < .001) and instructional delivery (β = .20, p < .001). Teachers' lesson preparation had a significant direct effect on their use of instructional materials (β = .39, p < .001), classroom management (β = .19, p < .001), instructional delivery (β = .45, p < .001) and lesson evaluation (β = .29, p < .001). Significant mediation effects were recorded on the link between the ULRMs and teachers' pedagogic duties. This study has empirically proven that teachers' use of library research materials is crucial for the instructional process. It serves as the information bank in schools and as a source of instructional materials to enabling educational practitioners to plan and deliver practical lessons.

Highlights:

1. Teachers' discharge of pedagogic duties is an anchor point in secondary education.

2. Being able to evaluate lessons is associated with being able to provide feedback.

3. Teachers effectively utilised instructional materials, having planned how to use them.

4. Teachers' lesson preparedness effectively decided their choice of instructional strategy.

Introduction

Teachers' service discharge is one aspect that impacts school effectiveness and learning outcomes in the educational system. To maintain a high level of professional service discharge in the classroom, teachers must take responsibility for their actions, performance, growth, and development. Teachers are also tasked with providing learners with academic and social directions, discipline and controlling classroom activities. They also encourage learners to study and engage actively in other classroom activities. Several indicators are considered when measuring teachers' discharge of duties. These include punctuality, time management, academic performance of students, relationship with other staff, respect for rules and authority, adherence to school norms, communication skills, record keeping, professional behaviour (Bassey et al., 2019), quality of teaching, response to students' learning processes, and pedagogical practices (Owan & Agunwa, 2019).

However, previous studies on teachers' effectiveness in Nigeria reveal that many instructors are not performing their roles as expected (Awodiji & Oluwalola, 2021; Sule & Okon, 2019). This shows that the problem of teachers' poor discharge of duties is pervasive; hence, it has attracted the attention of many scholars. In the literature, other terms commonly used synonymously with teachers' discharge of duties include but are not limited to (a) teachers' job effectiveness, (b) teachers' effectiveness, (c) teachers' job performance, (d) teachers' work performance, (e) teachers' role performance, (f) teachers' service delivery, (g) teachers' performance effectiveness, (h) teachers' job commitment, and so on. Much research on teachers' service discharge has considered several variables as presumed causes, correlates or predictors based on their designs. These variables can be grouped into factors about the school organisation, school managers, teachers themselves, and policymakers.

School-related variables often considered in the literature in the discussion of teachers' service discharge include school location, size, ownership (Masci et al., 2018), organisational culture (Emengini et al., 2020), management practices (Arop et al., 2020; Duan et al., 2018). Variables connected to the school managers that are often considered in the literature as correlates of teachers' service discharge are personnel management, management of library resources, discipline control, leadership styles, employee work-life policies, mentorship, staff psychological empowerment, staff retraining, motivation and placement, quality assurance, (Limon & Nartgün, 2020; Oguntimehin et al., 2018; Owan et al., 2020, 2022b). Others include internal marketing, supervision, communication skills, participatory management practices and administrative competence, hazard, conflict management and school resource management (Asuquo & Ekpoh, 2018; Duyan, 2020; Edet et al., 2017; Muñoz et al., 2019, 2021; Tayebwa et al., 2021; Yao et al., 2020).

Factors about the teachers themselves that are widely reported to affect their performance as they discharge services include age, gender (Green et al., 2016; Shaukat et al., 2019), commitment, attitude, interest and motivation (Wang et al., 2019; Werang et al., 2017), technostress inhibitors and creators (Li & Wang, 2021), emotional intelligence (Li et al., 2018), neuro-linguistic programming and identity (Javadi & Asl, 2020), soft skills (Awodiji & Oluwalola, 2021), educational qualification, years of work experience, job satisfaction (Taiwo et al., 2019) and over-schooling (Ebimobowei & Ogundare, 2020). Factors connected to policymakers often reported to affect the job performance of teachers include the quality of school facilities, supervision, recruitment practices (Lestari et al., 2020), quality assurance (Lawal, 2021), minimum wage provision (Adekanmbi & Ukpere, 2021), salary payment and staff promotion (Mohammed et al., 2019), school funding and conditions of service (Enwezor, 2020).

Although a large body of literature focuses on teachers' service delivery, job performance, and other related concepts, most of it has been judged to be excessively generic. It can be argued that what constitutes teachers' service discharge is broad and can be viewed from multiple perspectives. An effective teacher can be viewed beginning from the quality of training received. In this view, a teacher is expected to receive the proper training to enable him to function on the job. Another aspect of teachers' service discharge may be viewed from their input towards service delivery. In this context, variables that can be considered include quality of teaching, punctuality, lesson planning, record keeping, and classroom management. The personality of a teacher constitutes another aspect of effectiveness where indicators such as subject proficiency, communication abilities, self-concept, dressing, attitude to work, self-efficacy and others can be considered. The emotive qualities of learners may be influenced by how teachers behave and carry themselves; hence, teachers' personality connotes effectiveness. We may evaluate a teacher's efficacy in students' academic success from the production standpoint. As a result, it is difficult to claim that teachers are ineffective or otherwise across various manifestations, as most research implies.

Although studies, particularly those in the national literature, use shallow measures that treat teachers' job performance as a unidimensional construct (e.g., Akhtar & Iqbal, 2017; Arop et al., 2019; Edo & David, 2019; Ereño & Nunez, 2014; Pari & Azalea, 2020), the construct has been widely proven to be multidimensional in several studies (e.g., Ali & Haider, 2017; Amin et al., 2013; Mehmood et al., 2013; Owan et al., 2020, 2022b; Yusoff et al., 2014). These dimensions are classroom discipline, commitment, communication effectiveness, effective leadership, extracurricular activities, instructional delivery, lesson preparation, classroom monitoring/inspection, students' motivation, student evaluation, teaching competence, teaching methods and use of teaching aids (Adeyemi, 2010; Bassey et al., 2019; Ekpoh & Eze, 2015; Owan & Agunwa, 2019). Others include instructional, personal and professional qualities (Ali & Haider, 2017); classroom management, considering individual differences among students, using motivational tools continuously, finding solutions to students' problems and providing feedback (Mehmood et al., 2013; Owan et al., 2021). More broadly, other dimensions include counterproductive behaviour, task, contextual and adaptive performance (Limon & Nartgün, 2020; Sultana, 2020; Yusoff et al., 2014).

However, measuring teachers' job performance as unidimensional does not picture events in specific areas. For instance, it is difficult to state how much teachers perform in specific areas since most studies in the literature do not focus on them. It is also difficult to state how different variables (about the school, teachers, policymakers, or school leaders) contribute to particular areas of teachers' service discharge. The current study was designed to bridge this gap by focusing on teachers' discharge of pedagogic duties. Pedagogic duties refer to teaching-related activities undertaken by teachers to promote learning. These services include those performed mainly in the classroom, such as lesson preparation, instructional delivery, classroom management, chalkboard management, communication, understanding learners' differences and social interactions with students, lesson evaluations and following expected ethical practices in teaching. The current study is also designed to link teachers' use of research materials in school libraries to their performance of pedagogic duties.

The school library is an information warehouse where a pool of valuable materials for staff and students can be found. It serves as the school's information bank or hub (Owan et al., 2022a). A library integrates research contents from staff, students, and traditional sources, provides robust meta-data structure across disciplines and supports constant access across all collections (Attig et al., 2004). Practical usage of school libraries, it has been said, guarantees that students and instructors have access to information, develop cultural knowledge, adapt to society, and receive information technology training and certification in a variety of subjects (Ness, 2011; So & Song, 2018). It has also been proven that principals' managing diverse library materials enhance their pedagogic effectiveness in lesson preparation (Owan et al., 2021). The study by Owan et al. did not provide information about how teachers discharged services in other areas, such as knowledge acquisition, subject proficiency, and instructional delivery. Furthermore, the cited study assessed principals' management of library resources, but the present study focused on teachers' use of research materials in school libraries.

Research materials are evidence-based resources that can help teachers improve their instructional delivery in a more specific sense. Many research papers have been published in the last decade, with several recommendations to improve teachers' pedagogic practices. However, it remains unclear how secondary school teachers access these resources to improve their teaching practices. Research materials include journals, magazines, professional/trade sources, books/book chapters, conference proceedings, government documents, theses and dissertations (New Mexico State University Library [NMSU], 2022). These materials are unique because they are research products that have undergone scrutiny by experts. They contain information to help teachers, school leaders, students, and other interested personnel solve many problems. Due to this importance, previous studies have assessed the challenges connected with staff and students' use of library materials (Shafiu et al., 2019; Shandu, 2014). Related studies have also linked staff utilisation of libraries to variables such as their awareness (Yebowaah & Plockey, 2017), perception and attitudes (Mangrum & Foster, 2020; Ukaegbu, 2020) and satisfaction (Arua & Chinaka, 2011).

Studies on library utilisation in the school system have related it to library staff's performance (Tella & Ibinaiye, 2020) and students (Muthurasu & Suganthi, 2020).

However, one typical pattern noted is that most cited studies were concerned with academic staff in higher education institutions. This implies that literature is scarce on utilising library research materials, especially by teachers in secondary schools, and it creates a knowledge gap regarding how instructors use library resources to promote teaching and self-development. Although many researchers have associated library use with teachers' service delivery (e.g., Adeoye & Popoola, 2011; Owan et al., 2021), they were too general. To the best of the research knowledge, through the extensive review conducted, no existing study has assessed teachers' use of research materials in school libraries as a correlate of their effectiveness.

The current study bridged the gap in the literature by using a bootstrapped structural equation modelling to estimate whether teachers' use of library research materials (ULRMs) directly predicts their lesson preparation (LP), use of instructional materials (UIM) and instructional delivery (ID) respectively. The study also quantified how teachers' UIM directly predicted their ID, classroom management (CM), and classroom feedback (CF). The direct prediction of teachers' LP on their UIM, CM, ID and lesson evaluation (LE) was further estimated. The direct contribution of teachers' ID on their CM, LE, and understanding of learners' differences (ULD) was investigated. We estimated how much teachers' LE directly predicted their CM and ULD, respectively. The extent to which teachers' CM contributes directly to their classroom feedback (CF) and ULD was determined. We also determined whether teachers' LE directly affects their CM. The study also determined the indirect relationships among these variables. The study also examined the proportion of variance explained by the predictors to endogenous variables and the mediation effects of different variables in linking different predictors to different response variables.

Conceptual framework and hypotheses development

Owan et al. (2021) laid the groundwork for the current study by revealing that principals' management of library resources is an essential predictor of teachers' lesson preparation practices. However, we argued that principals' management of library resources might not directly affect lesson preparation if teachers do not make use of these resources. Thus, we hypothesised that it is teachers' use of library resources that may directly affect their lesson preparation (LP), instructional delivery (ID), and use of instructional materials (UIM). The theory of operant conditioning maintains that individuals' behaviour can be shaped through reinforcement by associating it with a stimulus (Skinner, 1938, 1971, 1984). In the classroom, students' behaviour can be reinforced through lesson evaluation and motivation practices to determine how well they have mastered lesson contents (Hundert et al., 1976; Lan, 2020; LeGray et al., 2013). Lesson evaluation is usually based on the learning objectives for each class, which in turn may affect teachers' choice of teaching method or instructional strategy (Arop et al., 2018; Umar & Salihu, 2015; Youxing et al., 2020). Thus,

we hypothesised that teachers' ID has a direct effect on their lesson evaluation (LE), classroom management (CM) and understanding of learners' differences (ULD).

According to Aydin (2013), lesson planning, implementation and evaluation are complex instructional processes that are intertwined. In fact, a teacher teaches what was planned and evaluates what was taught (Arop et al., 2018; Bassey et al., 2019). Furthermore, it has been proven that effective teachers decide how to teach and manage classrooms during lesson planning (Anderson et al., 1980; Black et al., 2019). Furthermore, it has been stated that teachers may include proactive, evidence-based classroom management practises into their lesson plans to increase student success, including those with impairments, and minimise behaviour issues (Ali, 2021; Nagro et al., 2019). For these reasons, LP was hypothesised to directly predict teachers' ID, LE, CM, and ULD.

Teachers' ULD was hypothesised to directly predict their ID, CM, and classroom feedback (CF). This hypothesis is anchored on the idea that teachers' understanding of learners' differences has been stated to affect how they manage and diversify classroom instruction for inclusiveness (Kaikkonen, 2010; Kasebusha & Banda, 2021). Also, how teachers understand their learners differing needs determines the kind of feedback they provide and the subsequent tasks they assign (Kaoropthai & Srimavin, 2007; Watson et al., 2016). Based on the preceding, LE was hypothesised to predict teachers' CM, CF and ULD directly. The hypothesis was based on experience that lesson evaluation, especially questioning, often minimises students' noisemaking and rowdiness in the classroom. However, such an experience must be empirically tested for a better understanding. Furthermore, lesson evaluation can offer students feedback (Arthur & Golder, 2020; Aydin, 2013; Morano & Riccomini, 2021) or help them understand their differences (Bassett-Dubsky et al., 2022; Halkiyo, 2022). For instance, a teacher can identify a fast or slow learner during lesson evaluation.

Similarly, teachers' CM was also hypothesised to be directly connected to their CF and ULD. This hypothesis was developed because classroom management is complex due to the variety of classroom scenarios, learners' diversity, and the complexity of the classroom itself. Therefore, teachers' perceptions and interpretations of classroom events and their ability to manage such activities vary with their information and degree of experience (Wolff et al., 2021). Furthermore, how teachers manage their classes, including sitting arrangement, layout and organisation, can go a long way to determining the extent to which they can monitor all students for individualised teaching (Scherzinger & Wettstein, 2019; Schwab et al., 2022). Lastly, teachers' CF was hypothesised to directly predict their ULD. This hypothesis was developed because, during the feedback process, teachers can identify differences in learners to reshape their subsequent teaching and evaluation activities. For instance, a study has shown that structured instruction using visual and/or verbal cues, direct teaching, and systematic instructor feedback may aid in the long-term retention and retrieval of new knowledge for people with down syndrome and intellectual impairment (Lappa & Mantzikos, 2021). Following the series of hypotheses formulated for this study,

the conceptual model (Figure 1) was developed. In Figure 1, the ULRMs is the core exogenous variable, whereas the ULD is the core endogenous variable. All other variables are mediators of several linkages, making it possible to estimate different indirect effects.
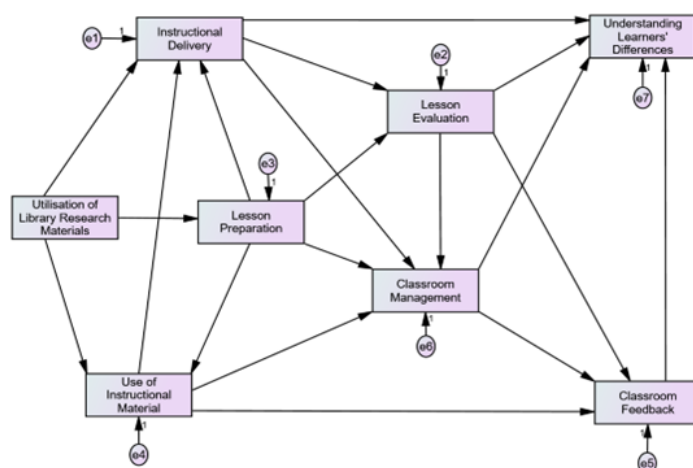
Figure 1: Hypothesised conceptual model of the study.

Methods

Research design and participants

The study followed the quantitative research method based on the descriptive survey design. The participants of this study comprised 4,876 teachers distributed across three education zones. A cluster random sampling technique was implemented and 50% of the population of respondents in each cluster was selected as follows: cluster 1 – Calabar Education Zone (n = 1,985; n = 993), cluster 2 – Ikom Education Zone (n = 1,644; n = 822) and cluster 3 – Ogoja Education Zone (n = 1,247; n = 624). The overall sample of this study is 2,439 teachers. However, three students from the classes taught by the participating teachers were used to assess their service discharge. A total of 7,317 respondents were randomly selected for the purpose through the simple random sampling technique.

Instrument and measures

Data for this study were collected using two instruments entitled "Utilisation of Library Research Materials Scale (ULRMS)" and "Teachers' Discharge of Pedagogic Duties Questionnaire (TDPDQ)." The researchers developed both instruments based on a pool of information drawn from a review of related literature. For instance, Koopmans et al. (2013) proposed the most comprehensive framework for job performance. Their framework and the suggested indicators were followed to develop the items pooled for the current instrument. Similarly, several other measures and scales were used to increase the number of potential items (e.g., Bhat & Beri, 2016; Carlos & Rodrigues, 2016; Limon & Nartgün, 2020; Owan et al., 2020, 2022b; Yusoff et al., 2014). Teachers responded to the ULRMS, which comprised 10 library research materials, by rating the frequency at which they utilise them. Response options in the instrument consisted of a five-point Likert scale such as (1) Never, (2)

Rarely, (3) Sometimes, (4) Often, and (5) Always. The items in the ULRMS were pooled from the study of Owan et al. (2021).

The TPSDQ comprised 40 items for students to indicate the extent to which they agreed or otherwise with the statements. Response options in the questionnaire included strongly disagree, disagree, neutral, agree and strongly agree. Items in the TPSDQ were developed to cover eight pedagogic areas since the construct is multidimensional. Although studies, particularly those in the national literature, use shallow measures that treat teachers' job performance as a unidimensional construct (e.g., Akhtar & Iqbal, 2017; Arop et al., 2019; Edo & David, 2019; Ereño & Nunez, 2014; Pari & Azalea, 2020), the construct has been widely proven to be multidimensional in several studies (e.g., Ali & Haider, 2017; Amin et al., 2013; Mehmood et al., 2013; Owan et al., 2020, 2022b; Yusoff et al., 2014). In the current study, we developed an instrument to measure teachers' discharge of pedagogic duties, a dimension of teachers' job performance. An instrument was developed due to the absence of an existing one measuring that aspect of teachers' job performance. Previous instruments mostly treated different aspects of pedagogic duties as separate indicators of teachers' job performance (e.g., Adeyemi, 2010; Bassey et al., 2019; Limon & Nartgün, 2020; Owan et al., 2020, 2022b). The scale will help researchers to collect specific data on teachers' delivery of pedagogic duties without discrediting previously-developed generic scales on teachers' job performance. Future studies can also use the scale to identify the degree of teachers' effectiveness across the dimensions of teachers' pedagogic duties and obtain findings that can be used to increase the quality of education.

Validity and reliability

Both instruments were subjected to face and content validities by 17 domain experts (Library and Information Science [LIS] experts (n = 7); Curriculum and Teaching [CT] experts n = 7). Three psychometric experts were also consulted to offer their opinions on the suitability of the items to the chosen scale formats. All the experts used were university academic staff and professors with over 15 years of work experience. This background made them suitably qualified to provide quality assessment and judgement to the items. The experts' suggestions were incorporated in refining the instrument into the final version. The quantitative approach to content validity was implemented according to earlier procedures, followed by other scholars (e.g., Yusoff, 2019; Zamanzadeh et al., 2015). For the URLMS, Items Content Validity Indices (I-CVIs) ranged from 0.86 to .99. In contrast, Individual Item Proportion of Relevance (IIPR) ranged from .90 to .99. The Scale Content Validity Index by Average (S-CVI/Ave) of the URLMS = .97. However, the Scale Content Validity Index by Universal Agreement (S-CVI/UA) of the URLMS = .80. In contrast, the average proportion of items considered relevant by the seven LIS experts = .97. This suggests, on average, that 97% of the assessors considered the items in the URLMS as being relevant. For the second instrument (TPSDQ), I-CVIs ranged from .71 to .99; the IIPR ranged from .88 to .99. The scale properties of the TPSDQ

were as follows – S-CVI/Ave = .95, S-CVI/UA = .71, and the average proportion of relevance of the items was .95. This indicates that 95% of the assessors considered the items on the TPSDQ (on average) to be relevant. This range of values obtained was sufficient to establish content validities for both instruments (see Lynn, 1986; Yusof, 2019).

A pilot study was conducted on 100 teachers and 400 students from five public secondary schools in Cross River State for construct validity and reliability. For factor analysis, it is recommended that the respondents-to-item ratio of 10:1 should be maintained to avoid overfitting issues (Boateng et al., 2018). The pilot sample was large enough because ten and forty items were in ULRMS and TPSDQ, respectively. The respondents in the pilot sample were not part of the main study since they were selected from non-participating schools. Copies of the instruments were administered once and subjected to exploratory factor analysis (EFA) for dimensionality checks. The EFA was performed using principal axis factoring (PAF) based on a varimax rotation. Factors were allowed to be extracted based on eigenvalues greater than one and suppress small coefficients below .30. The analysis was performed using SPSS and Jamovi programs. Cronbach's alpha, MacDonald's Omega and Composite Reliability (CR) techniques were used to assess the internal consistency of the instruments. Both analyses declared the instrument usable, as shown in subsequent sections.

Data collection and analysis

Although the study involved human participants, ethical consideration was waived for this study due to no risk associated with respondents filling out survey instruments as per the National regulations (see evidence at National Code of Health Research Ethics, 2007). However, written informed consent was obtained from all the voluntary participants of the study. Data for the main study were collected with the assistance of 10 research assistants. A total of 2,406 teachers participated voluntarily, although 2,439 were targeted. A total of 7,218 students (three per teacher) were eventually used for the study. Collected data were retrieved from these participants for data analysis. A structural equation modelling approach was used to study various parsimonious links among the predictors, mediators and outcomes variables.

Results

Exploratory Factor Analysis

The EFA results for the ULRMS yielded a KMO value of 0.87, with a significant Bartlett's test of sphericity, $\chi2(15) = 431.19$, p < .001. After screening items ULR2, ULR3, ULR7 and ULR9 that were dysfunctional (such as loading lonely, cross-loading across multiple factors, and not loading to any factor), only a factor was extracted that explained 63.21% of the variance. An examination of the scree plot also showed that only one factor had an eigenvalue above one. This indicated that the URLMS is unidimensional, with six acceptable variables. These six variables had loadings

such as .90 (ULR1), .87 (ULR6), .87 (ULR4), .84 (ULR5), .69 (ULR10) and .55 (ULR8).

For the TDPDQ, a KMO value of .785 was obtained, with a significant Bartlett's test of sphericity χ2(325) = 7583.33, p < .01. A total of seven factors were extracted (after screening dysfunctional items) that cumulatively accounted for 69.79% of the variance. The variance explained specifically by the even factors were as follows: factor 1 = 19.97%, factor 2 = 12.31%, factor 3 = 10.40%, factor 4 = 9.18%, factor 5 = 7.04%, factor 6 = 6.09%, and factor 7 = 4.80%. Items loading across the seven factors ranged from .61 to .95. After a careful examination of the items that loaded to each latent factor, the factors were named lesson notes preparation (factor 1), use of instructional materials (factor 2), understanding learners' differences (factor 3), classroom feedback (factor 4), instructional delivery (factor 5), lesson evaluation (factor 6) and classroom management (factor 7). A summary of the factors, their respective items and loadings are summarised in Table 1.

Table 1: Exploratory factor analysis and convergent validity of the TDPDQ.

Items	Min	Max	M	SD	Skew.	Kurt.	λ	λ²	ε	Reliability
DPD11	1	5	2.95	1.41	0.08	-1.31	.95	.90	.10	α = .95
DPD4	1	5	3.00	1.41	0.02	-1.31	.91	.83	.17	ω = .95
DPD5	1	5	3.00	1.42	0.02	-1.33	.89	.80	.20	CR = .94
DPD12	1	5	2.99	1.42	-0.01	-1.33	.89	.78	.22	
Lesson notes preparation	Sum		11.94	5.66	0.11	-5.28	3.64	3.31	0.69	
DPD39	1	5	2.95	1.38	0.06	-1.22	.94	.89	.11	α = .93
DPD36	1	5	2.97	1.41	0.03	-1.28	.92	.85	.15	ω = .93
DPD37	1	5	2.99	1.38	0.01	-1.23	.89	.79	.21	CR = .92
DPD25	1	5	2.99	1.37	0.06	-1.23	.76	.58	.42	
Use of instruct. materials	Sum		11.9	5.54	0.16	-4.96	3.51	3.11	0.89	
DPD15	1	5	2.96	1.44	0.00	-1.33	.86	.73	.27	α = .88
DPD21	1	5	2.97	1.41	0.01	-1.29	.84	.70	.30	ω = .88
DPD1	1	5	2.91	1.42	0.03	-1.34	.83	.69	.31	CR = .82
DPD30	1	5	3.04	1.46	-0.06	-1.37	.66	.43	.57	
Understanding learners' diff. Sum			11.88	5.73	-0.02	-5.33	3.19	2.55	1.45	
DPD20	1	5	3.09	1.40	-0.08	-1.24	.94	.88	.12	α = .94
DPD23	1	5	3.10	1.40	-0.04	-1.24	.93	.86	.14	ω = .94
DPD10	1	5	3.07	1.40	-0.04	-1.24	.89	.79	.21	CR = .93
Classroom feedback	Sum		9.26	4.2	-0.16	-3.72	2.76	2.53	0.47	
DPD8	1	5	2.96	1.39	0.04	-1.23	.95	.90	.10	α = .93
DPD9	1	5	2.94	1.38	0.05	-1.22	.92	.85	.15	ω = .93
DPD7	1	5	3.00	1.40	-0.03	-1.27	.86	.74	.26	CR = .92
Instructional delivery	Sum		8.9	4.17	0.06	-3.72	2.73	2.49	0.51	
DPD6	1	5	2.98	1.44	-0.01	-1.36	.76	.58	.42	α = .83
DPD18	1	5	3.07	1.41	-0.10	-1.30	.74	.55	.45	ω = .83
DPD2	1	5	3.02	1.48	-0.04	-1.42	.74	.55	.45	CR = .71
DPD33	1	5	3.07	1.46	-0.09	-1.38	.67	.44	.56	
Lesson evaluation	Sum		12.14	5.79	-0.24	-5.46	2.91	2.12	1.88	
DPD26	1	5	3.09	1.47	-0.10	-1.39	.70	.49	.51	α = .76
DPD31	1	5	3.04	1.43	-0.05	-1.33	.69	.48	.52	ω = .76
DPD27	1	5	3.17	1.41	-0.12	-1.30	.67	.44	.56	CR = .76
DPD28	1	5	3.09	1.44	-0.09	-1.33	.61	.37	.63	
Classroom management	Sum		12.39	5.75	-0.36	-5.35	2.67	1.78	2.22	

Extraction Method: Principal Axis Factoring. Rotation Method: Promax with Kaiser Normalization. Rotation converged in 5 iterations. λ = Factor loadings of the respective items; ε = Residual; α = Cronbach Alpha reliability estimate; ω = MacDonald's Omega reliability estimate; CR = Composite Reliability estimate; M = Mean; SD = Standard Deviation; Min = Minimum; Max = Maximum.

Convergent and discriminant validity

The Fornell-Larcker criterion, which uses the average variance extracted (AVE) per factor to test convergent validity, was employed (Fornell & Larcker, 1981). Convergent validity is achieved for a factor if AVE is greater than .50 (Eriksson et al., 2019; Lee, 2019). For the ULRMS, the AVE value of 0.63 was obtained, which is greater than the .50 threshold. Therefore, convergent validity is achieved for the ULRMS, indicating that the six retained items are theoretically related to their latent factor. For the TDPDQ, Table 2 shows that the AVE for the first six factors is greater than .50, excluding classroom management. Therefore, convergent validity is achieved for these six factors, suggesting that all the items loaded to these factors theoretically measure the same trait. Nevertheless,

convergent validity may also have been achieved for the seventh factor because an AVE value of .45 was obtained, with a composite reliability value of .76. Different scholars have proven that convergent validity is achieved if the AVE of a factor is greater than .40 and the composite reliability is greater than .60 (Hair et al., 2021; Lam, 2012).

Discriminant validity was not performed for the URLMS since it is unidimensional. However, Table 2 presents the discriminant validity of the TDPDQ based on the Fornell-Larcker criterion. Discriminant validity is achieved if the squared average variance extracted for each factor is greater than their correlation with other factors (Ab Hamid et al., 2017; Hilkenmeier et al., 2020). As shown in Table 2, all the bolded values (squared AVE) of the seven latent factors are greater than their correlation with other factors. Therefore, discriminant validity is achieved for all factors, indicating that the seven factors are theoretically distinct (unrelated) in measuring teachers' discharge of pedagogic duties.

Table 2: Discriminant validity matrix of the TDPDQ.

Factors	AVE	CR	1	2	3	4	5	6	7
(1) Lesson Notes Preparation	.83	.94	**.68**						
(2) Use of instructional materials	.78	.92	.00	**.60**					
(3) Understanding learners' differences	.64	.82	.39	.10	**.41**				
(4) Classroom feedback	.84	.93	.10	.00	.00	**.71**			
(5) Instructional delivery	.83	.92	.00	.00	.00	.00	**.69**		
(6) Lesson evaluation	.53	.71	.46	.10	.41	.00	.00	**.28**	
(7) Classroom management	.45	.76	.00	.00	.00	.00	.00	.00	**.20**

AVE = Average variance extracted. Values above .50 are evidence of convergent validity. CR = Composite reliability estimates. Values above .70 are acceptable. Bolded values are square roots of AVE. Values below the diagonal are factor correlations. The square root of AVE must be greater than the correlation estimates below.

Reliability

The reliability of the scales in both instruments was assessed using Cronbach's alpha (α), MacDonald's Omega (ω) and Composite Reliability (CR) techniques. For the ULRMS, reliability estimates were α = .90, ω = .91 and CR = .91. These values indicate that the instrument (ULRMS) is internally consistent for data collection in the main study. For the TDPDQ, acceptable reliability coefficients were obtained for the seven scales/factors based on α, ω and CR thresholds (See Table 1).

Confirmatory Factor Analysis (CFA)

The CFA was performed to verify the legitimacy of the items in measuring their respective constructs, verify the results of the EFA and assess the acceptability or otherwise of the theoretical models (Owan et al., 2022b). Several fit indices were used to determine the acceptability or otherwise of the model (Kline, 2016; Perry et al., 2015). For the ULRMS model (see Figure 2), χ2(9) = 41.701, p < .001 was obtained. However, due to the sensitivity of the Chi-square in committing type II error in a large sample size (Finch et al., 2016; Kline, 2016).

Also, the model's CMIN/df = 4.63 > 3.00 and AGFI = .77 < .80 suggest that the model has a poor fit. However, other fit indices showed signs of an acceptable model. For example, SRMR = .04 < .08, RMR = .08, NFI = .95, IFI = .96, TLI = .92 > ,90, CFI = .96, and RMSEA = .08 are all indicative of an acceptable model. Figure 2 also yielded similar coefficients that validated the EFA results. For the TDPDQ model (see
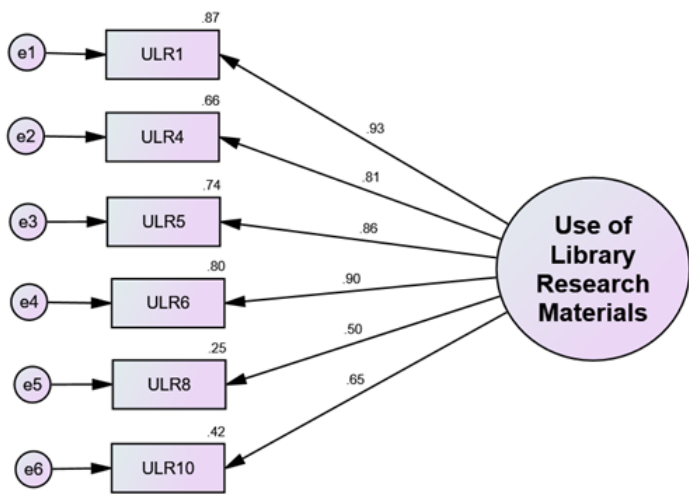
Figure 2: Confirmatory factor analysis of the ULRMS.

Figure 3: Confirmatory factor analysis of the TDPDQ.

Figure 3), a significant Chi-square value was obtained, χ^2 (279) = 642.24; p < .001. Other fit indices such as CMIN/DF = 2.30 < 3.00 (Kline, 2016); RMR = .07 < .08 (Bentler, 1992); SRMR = .03 < .08; RMSEA = .06 < .08 (Hooper et al., 2008); IFI = .95 > .90 (Perry et al., 2015); TLI = .94 > .90 (Byrne, 1994); CFI = .95 > .90 (Schumacker & Lomax, 2004); PNFI = .79 > .50; AGFI = .87 > .80 (Ma et al., 2021) reveal that the model has an acceptable goodness of fit. Furthermore, results of other fit indices such as NFI = .92 and RFI = .90 were also approaching the value of 1.00, which is a good sign of an acceptable model. Figure 3 also shows that all the variables loaded highly to respective latent factors in the range of .60 to .95.

Test of predictions/linkages

The model in Figure 1 was empirically tested using a bootstrapped path analysis in the family of structural equation modelling (SEM). Table 3 indicates that ULRMs significantly predicted teachers LP (β = .48, p < .001), UIM (β = .53, p < .001) and ID (β = .20, p < .001). Teachers' UIM significantly predicted their ID (β = .18, p < .001), CM (β = .12, p < .001) and CF (β = .07, p < .001). Also, teachers' LP had a significant direct effect on their UIM (β = .39, p < .001), CM (β = .19, p < .001), ID (β = .45, p < .001) and LE (β = .29, p < .001). Table 3 also showed that teachers' ID directly predict their CM (β = .40, p < .001), LE (β = .44, p < .001) and ULD (β = .10, p < .001). Furthermore, teachers LE was found to be a significant direct predictor of their CF (β = .24, p < .001) and ULD (β = .39, p < .001). Table 3 also proved that teachers' CM is direct significant predictor of CF (β = .20, p < .001) and ULD (β = .21, p < .001). Lastly, teachers' CF is significant direct predictor of ULD (β = .25, p < .001). There was a non-significant lesson evaluation (LE) prediction on classroom management (CM), leading to the removal of the path in Figure 4.

Figure 4 ULRMs is responsible for 23% (R^2 = .23, 95%CI [.20, .27], p < .01) of the overall variation in teachers' LP. It was also discovered that 53% of the variance in teachers' ID (R^2 = .52, 95%CI [.47, .55], p < .01) is explained by the joint prediction of the ULRMs, UIM, and LP. Also, Figure 4 reveals that 65% of the total variance in UIM (R^2 = .63, 95%CI [.61, .66], p < .01) is explained jointly by the prediction of ULRMs and LP. Figure 4 further showed that 39% of the total variance in CM (R^2 = .39, 95%CI [.35, .43], p < .01) is attributable to the joint contribution of ID, LP, and UIM. For LE as the response variable, Figure 4 shows that about 45% of the total variance in LE (R^2 = .45, 95%CI [.40, .49], p < .01) is due to the composite contributions of ID and LP. Furthermore, predictors such as LE, CM, and UIM can be held accountable for 17% of the total variance (R^2 = .17, 95%CI [.14, .21], p < .01) in CF. Lastly, 53% of the total variation in ULD (R^2 = .53, 95%CI [.49, .56], p < .01) is attributed to the joint prediction of ID, LE, CM and CF. These results imply that other predictors might account for the remaining 77%, 47%, 35%, 61%, 55%, 83%, and 47% of the variance in LP, ID, UIM, CM, LE, CF and ULD, respectively.
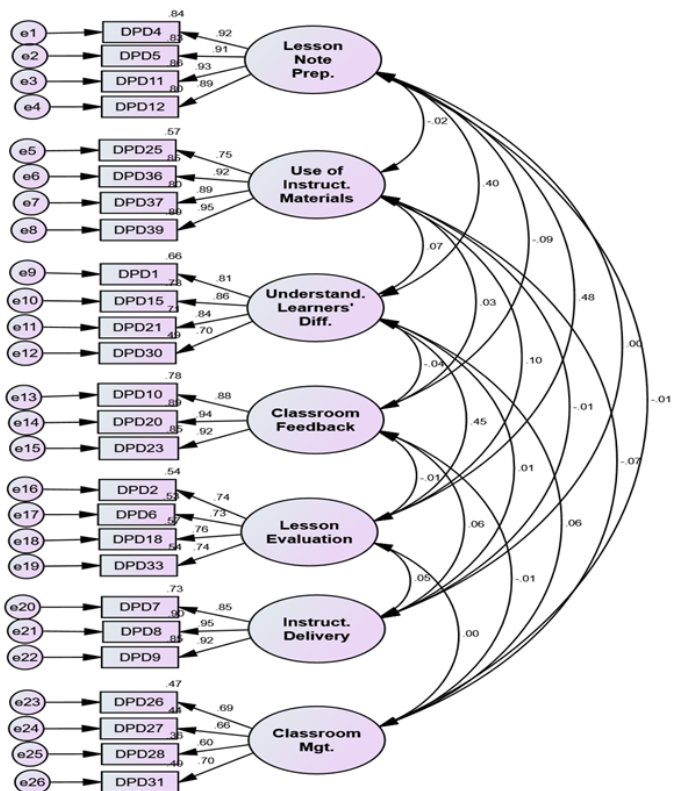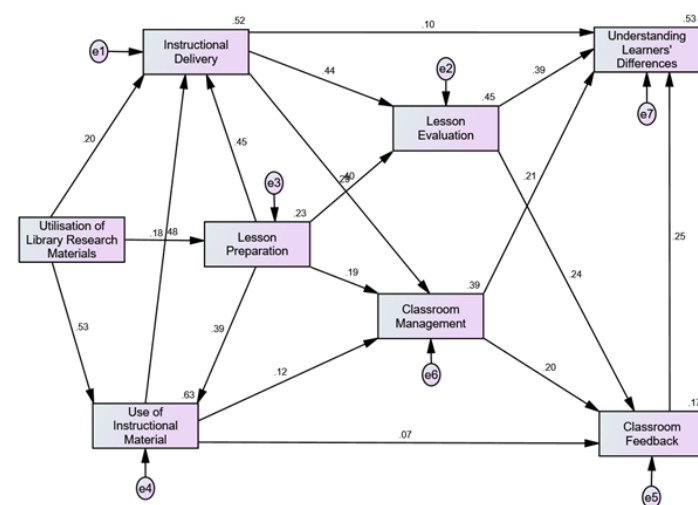

Figure 4: Path analytic model of the direct and indirect effects of the predictors on their response variables.

Regarding the mediation analysis, our analysis in Figure 4 revealed that teachers' ULRMs have a significant indirect effect (β = .19, p < .01) on their UIM, with LP mediating the association. Teachers' ULRMs also have a significant indirect effect (β = .34, p < .01) on their ID, with LP and UIM mediating the nexus. Teachers' ULRMs have a significant indirect effect (β = .39, p < .01) on their CM, with their ID, LP, and UIM being the mediators. Also, there is a significant indirect effect of teachers' ULRMs (β = .38, p < .01) on their LE, with LP, UIM and ID mediating the relationship. Teachers' ULRMs has a significant indirect effect on their CF (β = .22, p < .01) and ULD (β = .34, p < .01), with factors such as their ID, LP, UIM, LE and CM mediating both linkages.

Table 3: Direct effect of the predictors on their response variables.

	Path		B	β	95% CI	z
LP	<---	ULRMs	.45	.48[i]	.44, .52	27.03
UIM	<---	ULRMs	.47	.53[i]	.49, .57	37.72
ID	<---	ULRMs	.19	.20[i]	.14, .26	9.84
ID	<---	UIM	.18	.18[i]	.12, .24	7.53
CM	<---	UIM	.11	.12[i]	.07, .16	5.28
CF	<---	UIM	.08	.07[i]	.03, .12	3.32
UIM	<---	LP	.38	.39[i]	.35, .43	27.73
CM	<---	LP	.18	.19[i]	.14, .25	8.25
ID	<---	LP	.45	.45[i]	.40, .50	24.17
LE	<---	LP	.29	.29[i]	.24, .34	14.32
CM	<---	ID	.37	.40[i]	.34, .45	17.64
LE	<---	ID	.44	.44[i]	.38, .49	21.68
ULD	<---	ID	.10	.10[i]	.05, .16	4.85
CF	<---	LE	.23	.24[i]	.19, .29	11.18
ULD	<---	LE	.37	.39[i]	.33, .44	20.92
CF	<---	CM	.21	.20[i]	.15, .25	9.20
ULD	<---	CM	.21	.21[i]	.16, .26	11.71
ULD	<---	CF	.25	.25[i]	.21, .30	16.47

Notes: i = Significant at p < .001

URLMs = Utilisation of library research materials; LP = Lesson preparation; UIM = Use of instructional materials; ID = Instructional delivery; LE = Lesson evaluation; CM = Classroom management; CF = Classroom feedback; ULD = Understanding learners' differences.

Figure 4 demonstrated that teachers' LP has a significant indirect effect (β = .07, p < .01) on their ID, with the relationship mediated by their UIM. Teachers' LP significantly indirectly predicts their CM (β = .25, p < .01), with the link being mediated by their ID and UIM. Figure 4 also shows that teachers' LP has a substantial indirect effect (β = .23, p < .01) on LE, with their ID mediating the relationship. It was also revealed that teachers' LP significantly predicted their CF through an indirect effect (β = .24, p < .01), with the mediating variables being ID, UIM, LE and CM. Teachers' LP has a significant indirect effect (β = .41, p < .01) on their ULD, with the mediators being ID, UIM, LE, CM, and CF.

Teachers' UIM has a substantial indirect prediction of their CM (β = .07, p < .01) and (β = .08, p < .01) LE with the connection being mediated by their ID. Teachers' UIM also had a significant indirect contribution (β = .06, p < .01) to their CF, with ID, LE and CM mediating the link. Furthermore, Figure 4 depicts that teachers' UIM has a significant indirect effect (β = .12, p < .01) on their ULD, with ID, LE, CM and CF mediating the nexus. Figure 4 also indicates that teachers' ID has a significant indirect effect on their CF (β = .19, p < .01) and ULD (β = .30, p < .01), with LE and CM mediating the connections. Teachers' CM has a significant indirect effect (β = .05, p < .01) on their ULD, through the mediation of CF. Lastly, teachers' CM (β = .05, p < .01) and LE (β = .06, p < .01) have significant indirect effects on their ULD, with their CF mediating the associations respectively.

Discussion

This study discovered firstly that teachers' use of library research materials (ULRMs) is an important predictor in their discharge of pedagogic duties such as lesson preparation (LP), instructional delivery (ID), and use of instructional materials (UIM). This implies that teachers with high use of library research materials such as journal articles, theses, dissertations, and conference proceedings, among others, tended to demonstrate a higher degree of effectiveness in LP, ID, and UIM. This result is attributable to the importance of research materials in school libraries documented in previous studies (Ness, 2011; Owan et al., 2022a; So & Song, 2018). The result also aligns with the finding of another study, which discovered that principals' management of diverse library materials enhanced teachers' pedagogic effectiveness in lesson preparation (Owan et al., 2021).

Secondly, this study found a significant direct effect of teachers' UIM on their ID, classroom management (CM) and classroom feedback (CF). This finding implies that secondary school teachers with good ID, CM and CF skills, to a significant extent, tended to use instructional materials in the teaching-learning process more. This result is not surprising because previous research has documented that using instructional material makes lessons practical (Abdulrahaman et al., 2020; Barnes et al., 2018). Since some instructional materials are interactive (Mamolo, 2019; Rice & Ortiz, 2021), students are more likely to display a high sense of focus, thereby promoting CM through students' attentiveness. In terms of CF, the result of this study demonstrated that teachers can engage learners more in classroom discussion, attend to their questions and offer practice-based guidance.

This study also proved that teachers' LP predicts their UIM, CM, ID and lesson evaluation (LE). This result implies that effective LP practices are associated with effective UIM, classroom control, quality teaching and effective LE. For teachers' UIM, the result of this study is attributed to the careful selection of lesson contents and learning experiences to be offered to students during the preparation process. Effective teachers often consider what, whom, when, where and how to teach when developing lesson plans. The instructional material that best conveys the lesson contents is decided during lesson preparation. Thus, it is no surprise that teachers can effectively utilise instructional materials, planning how to use them during LP. For CM, our result may mean that teachers who prepare their lessons effectively can decide the most suitable/appropriate instructional strategy to implement. This decision may assist them in developing effective CM strategies to shun disruptive classroom behaviour. This finding corroborates the evidence earlier presented by two studies that teachers who planned their lessons agreed to also plan for classroom management (Ali, 2021; Nkwabi, 2020). Regarding ID, our results clarify that teachers who are good at LP are more likely to deliver lessons effectively than those who are not. This result strengthens the finding of Hatch and Clark (2021) that teachers who make effective lesson plans can navigate their ways during the delivery process. The link between teachers' LP and LE is not a surprise because the latter is often decided in the former process. Poor LP may birth poor evaluation because planned objectives are often considered in the evaluation

process. This result agrees with a study from the Netherlands that a significant correlation exists between lesson planning and evaluation (Morsink, 2021).

This study also documented a significant direct effect of teachers' ID on their CM, LE and understanding of learners' differences (ULD). This result demonstrates that managing classes, evaluating lessons, and understanding students' learning needs are intensely tied to teachers' ID competence. The result is explainable because LE, CM and ULD are a part of the instructional process. Therefore, it may be challenging to say a teacher is good in ID without having these (LE, CM and ULD) skills. Furthermore, a good teacher can differentiate lessons to suit learners with different needs and paces during instructional delivery. This corroborates the position of other scholars that teachers should diversify classroom instruction to achieve differentiated instruction where students learn at their own pace and based on their needs (e.g., Parsons et al., 2018; van Geel et al., 2019).

Teachers' LE was a significant direct predictor of their classroom feedback and ULD. This suggests that being able to evaluate lessons is associated with being able to provide feedback to learners during classroom interactions. The study also showed that teachers' CM directly affects their CF. This also means that teachers who are good classroom managers are more likely to provide quality feedback than those with weak CM skills. The result is justifiable because effective feedback cannot be provided in a rowdy and disconnected environment. A serene classroom atmosphere is required for teachers and learners to communicate effectively. This supports the results of other studies that teachers effectively control their classrooms and can calm students down and communicate with them (Haydn, 2014; Jones et al., 2014). The current study also showed that classroom feedback is necessary to understand learners' differences. This evidence is not shocking because CF involves a two-way interaction between teachers and learners. Through this interaction, a good teacher can identify brilliant from average and dull learners, enabling him to tailor lessons to meet diverse needs.

This study documented that teachers' LP significantly mediated the link between their ULRMs and UIM. This result is because the process of LP can allow teachers to decide on the instructional material from the library to use. Furthermore, secondary school teachers may not choose suitable instructional materials from the library without proper lesson planning. This strengthens the position of other scholars that the lesson-planning process underpins all other instructional processes (Fujii, 2019). The current study also yielded a significant mediation effect of LP and UIM in the relationship between teachers' URLMs and their ID. This implies that merely using research materials in libraries cannot promote teachers' instructional delivery unless they are used to prepare lessons and as instructional materials. Since the library houses several instructional materials (Ojobor et al., 2020; Dane, 1963; Calzada & Foote, 2021), teachers can access these resources to plan their lesson delivery. This could explain the result of the mediation effect of LP and UIM on the link between ULRMs and ID. The present study also found that teachers' ULRMs connected significantly to their CM and LE through ID, LP

and UIM. Using research materials can promote classroom management and evaluation, depending on teachers' lesson preparation, instructional effectiveness, and instructional material used. It was further revealed that ID, LP, UIM, LE and CM significantly mediated the effect of teachers' ULRMs on their classroom feedback (CF), respectively. These results suggest that library research materials can improve teachers' classroom feedback through instructional delivery, preparation, instructional material use, evaluation, and classroom management.

Conclusion

This study used a path analytic framework to analyse the direct and indirect effect of teachers' use of library research materials on seven pedagogic duties in secondary schools. The direct and indirect effects of various pathways were analysed among the pedagogic duties of teachers. Various significant predictions were uncovered, such as teachers' use of library research materials on lesson preparation, instructional material, and delivery. Several significant mediation effects of different variables of teachers' discharge of pedagogic duties were established by linking different variables. This study is helpful for policy, research and practice. The results of this study have been able to close several gaps previously in existence. The study has quantified and empirically proven that teachers' use of library research materials is crucial for the instructional process. It serves as the information bank in schools and as a source of instructional materials to enable educational practitioners to plan and deliver practical lessons. The linkages among the different pedagogic duties address several important research gaps, such as lesson planning and instructional delivery, preparation and evaluation, classroom management and feedback, and several others with scarce literature. This study is critical for teachers because it might enable them to understand the connections between lesson planning, delivery, and evaluation. This will improve their instructional practices by focusing on the most meaningful pathways of specific pedagogic practices. This study bridges another gap in teachers' job performance literature which has been too general among many previous teacher development studies. Lastly, the study has developed and standardised two measuring instruments with acceptable psychometric properties for further research into teachers' classroom practices.

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Appendices

Appendix A: Utilisation of library research materials scale (ulrms).

Dear respondent,

The essence of this questionnaire is to elicit information on the degree to which you research materials in the library. This data collection process is for an academic exercise, and participation in the study is voluntary. You are also free to exit the exercise at any point in time. We promise to treat your responses with high confidentiality and to only use the aggregated results for decision-making and publication purposes. Providing your personal data is optional; they will never be made public where they are provided. Kindly feel free and secure to provide accurate information to the best of your knowledge. Having read these conditions, you must provide written informed consent by ticking the box below.

☐ I consent to participate in this study, having read and understood the implications of participation. I also consent to have my personal information used to achieve the study's objectives in a confidential manner.

Section A: Personal Data

Age (in years): _____

Sex: Male [ ]; Female [ ]

Religion: _____

Marital Status: Single [ ]; Married [ ]; Other (please specify): _____

Highest educational qualification: NCE/OND [ ]; Bachelor's [ ]; Master's [ ]; Doctorate [ ]

Years of work experience: Less than 5 years [ ]; 5 – 9 years [ ]; 10 – 14 years [ ]; 15 – 19 years [ ]; 20 years and above [ ]

Section B: Utilisation of library research materials

Instruction: You are required to indicate the frequency at which you use the following library research materials using the scale provided in the table below.

S/N	Items	Never	Rarely	Sometimes	Often	Always
1	Dissertations and theses					
2	Electronic books (e-books)					
3	Electronic conference proceedings					
4	Electronic journals (e-journal)					
5	Printed Journals					
6	Book of abstracts					
7	Government Reports					
8	Reference books					
9	Textbooks					
10	Monographs					

Appendix B: Teachers' discharge of pedagogic duties questionnaire (TDPDQ).

Dear respondent,

The purpose of this questionnaire is to obtain information on the teaching-related practices of your classroom teacher. The data collected about your teacher will not be used to reward or punish him/her; it is just a research exercise aimed at improving our educational system. Therefore, feel free to provide only truthful information about your class teacher to promote quality research findings and conclusions. Please note that participation in the research is optional; you may also decide to opt out of the exercise at any stage. We pledge to keep your replies private and only use the aggregated data for decision-making. The result that will be obtained may be published in a peer-reviewed journal. Furthermore, sharing your personal information is optional; if you do, it will never be made public. Please feel free and safe to provide accurate information to the best of your ability. After reading these terms and conditions, you must offer written informed permission by checking the box below.

☐ I agree to participate in this research after reading and comprehending the consequences of doing so. I also agree to have my personal information used discreetly to achieve the study's aims.

SECTION A: PERSONAL DATA

Age (in years): _____

Sex: Male [ ]; Female [ ]

Class: _____

SECTION A: LIKERT SCALE

Instruction: Kindly indicate the extent to which you agree or disagree with the following statements concerning your classroom teacher. In the table below, you will find response options such as SD, D, N, A, and SA. The meaning of each abbreviation is provided in the key below for your guidance and use.
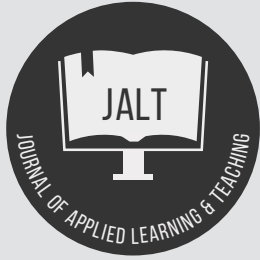
KEY

SD = Strongly Disagree

D = Disagree

N = Neutral/Neither agree nor disagree

A = Agree

SA = Strongly Agree

S/N	Items	SD	D	N	A	SA
	My class teacher...					
DPD1	knows all the slow/fast learners in my class					
DPD2	checks for understanding by randomly calling on different students to answer his/her questions					
DPD4	presents lesson contents from his notes					
DPD5	only reads course materials from only textbooks					
DPD6	regularly monitors each student's progress after each lesson					
DPD7	states the objectives of each lesson clearly					
DPD8	adjusts the tempo of his/her instruction at a pace that meets almost every student's needs					
DPD9	asks questions about previous experiences related to lessons before he begins each class					
DPD10	gives students increasingly more challenging tasks to perform after successfully completing previous ones					
DPD11	comes to class with already prepared notes					
DPD12	presents all lessons from his/her head without any note					
DPD15	delivers instruction that matches all students' needs					
DPD18	provides all continuous assessment reports to students					
DPD20	uses praises to appreciate all correctly answered questions by every student					
DPD21	diversify his methods for learners with different forms of learning disability					
DPD23	provides answers to all students' questions asked while teaching					
DPD25	always uses materials that are very relevant in making me understand his/her lessons					
DPD26	makes sure that every student maintains a high sense of focus while delivering lessons					
DPD27	organises his classroom in a way that allows him/her to pass freely to every student's desk					
DPD28	makes it almost impossible for his/her class to be rowdy					
DPD30	offers students opportunities to practice his/her instruction at their own pace					
DPD31	ensures strict discipline of all disruptive behaviours in my class					
DPD33	encourages students to use assessment results for further learning/improvement					
DPD36	uses pictures/videos to demonstrate each of his/her lessons					
DPD37	sometimes improvise using locally-sourced materials to illustrate his lessons					
DPD39	often teach with real-life objects for clarity					

Teaching methods that influence Grade 12 students' mathematics results in Port Moresby, Papua New Guinea

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Abstract

Teachers' teaching methods are important as they have been shown to determine the students' mathematics performance at secondary schools. However, it is evident that a significant number of students cannot continue to Grade 11, and there is a simultaneous decline in student enrolment in science-related degrees at the university level in Papua New Guinea (PNG). That being the case, this study aims to examine teaching methods employed by teachers in the classroom that affect Grade 12 students' mathematics results. A mixed method research (qualitative and quantitative) approach is applied in this study. The interview data for Grade 12 mathematics teachers were analysed through a thematic approach to capture rich information. Three different teaching methods (teacher-centered, student-centered, and a mix of both teacher-centered and student-centered approaches) are identified in this study. It is evident in this study that the student-centred method has a significant influence on Grade 12 students' mathematics results. The study concludes that more attention should be given to student-centered and mixed approaches, in order to improve Grade 12 students' mathematics results.

Introduction

The primary purpose of teaching at any level of education is to bring about a fundamental change in the learner (Senthamarai, 2018; Tebabal & Kahssay, 2011). Teachers should apply appropriate teaching methods to facilitate the process of knowledge transmission that suits best the specific objectives and outcomes. Traditionally, many teachers have widely applied teacher-centered methods to impart knowledge to learners comparable to student-centered methods (Senthamarai, 2018; Saeed et al., 2019). However, the arguments about the effectiveness of different teaching methods on student learning are consistently raised with considerable interest in educational research (Ardeleanu, 2019; Senthamarai, 2018). Moreover, research on teaching and learning constantly endeavours to examine the extent to which different teaching methods enhance growth in student learning.

The decline in academic performance of the students is fundamentally linked to the application of ineffective teaching methods by teachers to impart knowledge to learners (Borgonovi et al., 2021; Morsy et al., 2018). According to Ardeleanu (2019), teaching is a process that involves bringing desirable changes in learners so as to achieve specific outcomes. In order for the teaching methods used to be effective, the teachers need to be aware of numerous teaching strategies to assist students to learn better (Senthamarai, 2018; Saeed et al., 2019). Many researchers argue that teaching strategies such as student- and teacher-centered methods have improved academic performance for students (Kahramonovna, 2021; Murphy et al., 2021; Precious & Feyisetan, 2020). Other studies have also claimed that integrating both approaches has a significant influence on the students' academic results (Bralić, & Divjak, 2018; Trinidad, 2020). Therefore, the three teaching approaches are discussed further in the literature review below.

Literature review

The teaching method is the mechanism that is used by the teacher to organize and implement a number of educational activities to achieve certain goals (Bieg et al., 2017; Ardeleanu, 2019). Teaching techniques are the means that reflect the success of the learning process and the competencies of the teacher (Malik & Masri, 2019; Voskoglou, 2019). For instance, from the author's teaching experience, teachers often look for new ways to deliver knowledge to the learners, and on many occasions, discovered that traditional teaching methods become not effective as they used to be due to the current advancement in technology. Teaching becomes more effective when it is performed in a quicker response to the needs of the learner. A teaching method is comprised of the principles and methods used by teachers to enable student learning (Senthamarai, 2018; Saeed et al., 2019). These strategies are determined partly by subject matter to be taught and partly by the nature of the learner. For a particular teaching method to be appropriate and efficient, it has to be in relation to the characteristic of the learner and the type of learning it is supposed to bring about (Valizhanovna, 2022; Revikovich, 2022; Voskoglou, 2019). Studies suggest that the design and selection of teaching methods must take into account not only the nature of the subject matter but also how students learn (Ardeleanu, 2019; Asghar et al., 2019).

The teacher-centered method encourages the students to focus completely on the teacher in the classroom (Bremner, 2019; Di Biase, 2019). Studies claim that the teacher is the focus, and he/she does almost all the talking while students continue to listen and remain silent (Al-Balushi et al., 2020; Case, 2019; Montrieux & Schellens, 2018). The collaboration between teacher and student is minimal in teaching and learning in the classroom. A study by Bergström and Wiklund-Engblom (2022) in Finland reveals that the full control and authority of the learning activities in the classroom rests on the teachers. Therefore, the classroom is often orderly, and students remain quiet. Furthermore, a study by Wheaton (2021) states that as the teacher designs, directs, and conducts all classroom activities under his or her supervision, it reduces the chances of the students missing any important material or content.

However, several studies argue that this approach to education can hinder the communication and collaborative skills of students, as students often work alone (Baghoussi, 2021; Teppo et al., 2021; Fatima, 2022). Moreover, continuous teacher-centered instruction can create a monotonous nature inside the classroom, and this may make students feel bored with their studies. A study by Bature (2020). supports this argument and claims that a teacher-centred approach may become less powerful in capturing and maintaining the student focus in the lessons. Most significantly, other studies also reveal that a teacher-centered approach inside the classroom prevents learners from expressing themselves and discourages them from asking questions and logical engagement in self-learning (Olatunde-Aiyedun & Ogunode, 2020; Uzunboylu & Özcan, 2019).

In teacher-centered classrooms, control is of primary importance, and "authority is transmitted hierarchically" (Dollard & Christensen, 1996, p. 3). This indicates that the teacher exerts control over the students' learning in the classroom. Studies on teacher-centered teaching argue that in these classrooms, compliance is valued over initiative and passive learners over active learners (Kakongoro, 2019; Mugizi et al., 2020; Yao & Collins, 2019; Shipton, 2020). Teachers control the students' learning with instructional methods that promote them as the focus by using lectures, guided discussions, and demonstrations (Kakongoro, 2019, Mugizi et al., 2020). A study by Bature (2020). claims that these forms of instruction enable the teacher to stand in the front of the classroom while all students work on the same task. In addition, the physical design of the classroom often promotes a focus on the teacher and limits student activity that disrupts the focus of the learning (Bature, 2020; Yao & Collins, 2019). In other words, the classrooms are often organized so that desks face toward the primary focal point, the teacher.

Moreover, in teacher-centred teaching, teachers exert their control through a system of clearly defined rules, routines, and punishments that are mandated rather than developed with the students (Kakongoro, 2019, Mugizi et al., 2020). Studies reveal that teachers identify the rules necessary

for learning in the classroom (Bature, 2020; Kakongoro, 2019, Mugizi et al., 2020). In teacher-centered classrooms, teachers may rely on extrinsic motivation to influence student behavior for learning to take place. This teaching method allows students to learn, and the process is seen as a prerequisite for obtaining something desirable (Yao & Collins, 2019; Shipton, 2020), such as social rewards (e.g. praise), activity rewards (e.g. free time, computer time), and tangible rewards.

Unlike in a teacher-centered teaching method, in a classroom that uses a student-centered approach, both teachers and students share an equal focus (Wang & Zhang, 2019; Ali, 2019). Most significantly, a higher level of student-teacher interaction is visible in a student-centered approach. Studies reveal that students do not play the role of excessive listeners; instead, they learn to collaborate with each other (Ali, 2019; Benlahcene et al., 2020; Arman, 2019). Furthermore, research suggests that this approach highly encourages teacher-learner communication.

Several studies confirm that the student-centred method allows learners to acquire collaborative and communicative skills mainly through group work (Gezim & Xhomara, 2020; Muganga & Ssenkusu, 2019). In addition, it gives learners the freedom to acquire knowledge independently and logically by asking questions. Inside a student-centred classroom, learners are relatively more enthusiastic in the learning process due to the high interaction with one another and also with the teacher (Dakovic & Zhang, 2020; Murphy et al., 2021). However, unlike the strict and orderly nature of the teacher-centred classroom, student-centred classrooms can often get chaotic and noisy (Jacobs & Renandya, 2019; Sandybayev, 2020). Further, students possessing varying learning styles and speeds and managing all students' activities at once can get comparatively harder for the teacher (Jacobs & Renandya, 2019). Despite that, teachers act as facilitators to guide the students to take ownership of their own learning to discover new ideas and knowledge. For instance, several studies claim that student-centred methods are of interest primarily in assisting students to engage with problems and issues, search below the surface, try out various possible solutions or explanations and finally construct their own meaning (Jacobs & Renandya, 2019; Sandybayev, 2020; Precious & Feyisetan, 2020). A study by Wulf (2019) discovered that the teaching methods or strategies include reflective thinking, inquiry, exploratory discussions, role-playing, demonstrations, projects, and simulation games. These teaching strategies empower students and strengthen their sense of responsibility.

The development of interpersonal relationships is an essential component of a student-centred approach, since positive student-teacher relationships presumably reduce the need for control and become the foundation for all interaction in the classroom (Bechter et al., 2019; Talbert et al., 2019). The student-centered environment facilitates a more collaborative way for students to learn. Studies indicate that the teacher models instructions and acts as a facilitator, providing feedback and answering questions when needed. A study by Komatsu et al. (2021) highlights that the students choose how they want to learn, why they want to learn that way, and with whom. Students answer

each other's questions and give each other feedback, using the teacher as a resource when needed (Bechter et al., 2019; Talbert et al., 2019).

Moreover, in a student-centred approach, teachers minimize the use of extrinsic rewards because they may adversely affect student motivation, create reliance on the teacher, and encourage appropriate behavior for the sake of a reward rather than for the good of the learning (Talbert et al., 2019; Aytaç & Kula, 2020). Instead, teachers are encouraged to use strategies for enhancing a student's intrinsic motivation (Duraisingh, 2020), including adapting activities to students' interests, calling attention to the instrumental value of academic activities, incorporating game-like features, and providing opportunities to exercise autonomy and make choices.

A teaching methodology that strategically combines both teacher- and student-centered approaches can foster the benefits of both of them. Indeed, this seems to be supported in a study of students' conceptions of the effectiveness of different learning environments, which reveals clearly the students' preferences for methodologies based on content and expository teaching (Muganga & Ssenkusu, 2019; Richards et al., 2019). Additionally, Rapanta (2021) emphasises that efficiency of teaching methods is increased by combining student-centred methods with those that are based on teachers' explanations (lecture-style classes). Studies also support that combined methods that encourage both students' and teachers' collaboration make a key contribution to the effectiveness of their learning (Muganga & Ssenkusu, 2019; Richards et al., 2019; Talbert et al., 2019; Aytaç & Kula, 2020). In this sense, it appears to be supported that adequate explanations by the teacher that stimulate students' active participation facilitate the mental and emotional atmosphere that is necessary to create an environment that is conducive to deep learning (Bechter et al., 2019; Talbert et al., 2019). Many authors highlight that methodologies based on projects and problem-solving promotes higher-order cognitive activity in the students (Talbert et al., 2019; Aytaç & Kula, 2020).

Importantly, teaching is a pragmatic job, and teachers do their best to facilitate learning in the classroom (Revikovich, 2022; Valizhanovna, 2022). Students need to learn facts, principles, standard procedures, or ways of doing things before they can start an informed discussion about their meaning and before they can start solving problems (Revikovich, 2022; Voskoglou, 2019).

The study aims to identify the specific teaching methods that influence Grade 12 students' mathematics results. The guiding research question for this study is: What teaching methods influence Grade 12 students' mathematics results in Port Moresby, Papua New Guinea?

Methods

This section of the paper discusses the methods and procedures used to collect and analyse the interview data. In this study, both qualitative and quantitative research methods are applied. The qualitative method increases the

understanding of the underlying phenomenon (Creswell, 2002; Creswell & Creswell, 2017), while quantitative approaches provide valuable information (through rigorous treatment of data) to address the research problem (Creswell, 2008; Creswell & Clark, 2007; Onwuegbuzie & Leech, 2006).

Development and administration of interview questions

The interview questions were developed following basic guidelines (Archibald, 2016; Bamberger, 2012; Creswell, 2008). Each question was constructed with reference to the topic and the purpose of this study. Accordingly, the brevity and clarity of the instrument were prioritised. Biased and negative wordings that may have influenced teachers' responses were avoided. The questions developed were then discussed with three experienced teachers. Feedback from these researchers related to designing the questions on the quality of teaching aspects adapted from the teaching quality model in schools in New South Wales, and how the researcher would engage teachers to truthfully express their feelings towards teaching mathematics. Consideration of validity and reliability were paramount for interview questions for the teacher participants (Archibald, 2016; Creswell, 2008). As this paper aims to get Grade 12 mathematics teachers' views about their methods of teaching mathematics. Grade 12 teachers are selected in this study because their students sit for PNG national examination each year. The results of these examinations continue to decline over the years, and many students cannot go to universities and colleges, respectively. Ethics approval was obtained from the University of Adelaide's Human Research and Ethics Committee (UAHREC Ethics Approval No H-2017-133).

Mathematics teachers of Grade 12 students were selected. Teachers were purposefully selected with a mixture of experience, from expert and novice, to ensure that a balance of views and opinions was received (Creswell, 2002, 2017). Semi-structured interviews were scheduled during teachers' non-contact periods, and the interviews were conducted in the English language. Once the appointments were made, interview questions were provided to teachers, in order to obtain as honest and detailed answers as possible. Interviews were then conducted in 16 schools, with 21 teacher participants. Ten female and eleven male teachers participated in the study. The schools were selected according to accessibility and availability of participants. Catholic, government, and private schools were selected equally, according to their location. Participants were informed that the interviews were to be audio-recorded. Prior to the interview, the researcher explained to participants the purpose, importance, and confidentiality of the interview (Creswell, 2008). After that, the researcher began to ask questions using the interview protocol. Questions were rephrased, and examples were highlighted relating to scenarios for the participants to understand the questions. At the end of the interview, the researcher thanked the participants and reassured them of the confidentiality of their responses.

Thematic analysis approach

NVivo 12 software was used to analyse the interview data in this chapter. NVivo is a data management tool (Hart & Achterman, 2017), that organises and assists in making sense of data during analysis (Hamrouni & Akkari, 2012; Hart & Achterman, 2017). NVivo organises, stores, and retrieves data more efficiently than manual methods, saves time, and helps to rigorously back up findings with evidence (Hamrouni & Akkari, 2012). The data were imported from a text file and analysed with NVivo's visualisation tools. The software allows the researcher to classify, sort, and arrange information; examine relationships in the data; and combine analysis with linking, shaping, searching , and modelling (Hamrouni & Akkari, 2012; Hart & Achterman, 2017). The researcher can test theories, identify trends, and cross-examine information in a multitude of ways using the software's search engine and query functions.

Thematic analysis is the most common analysis approach used in qualitative research. This approach emphasises pinpointing, examining, and recording patterns (themes) within data. Themes are patterns across data sets that become the categories for analysis and are important in describing a phenomenon associated with a specific research question. In this approach, themes are used to capture the essence and spread of meaning; they unite data that might otherwise appear disparate, and correct meanings that occur in multiple and varied contexts. "Thematic analysis can be an essentialist or realist method, which reports experiences, meanings and the reality of participants" (Braun & Clarke, 2006 p. 81). Therefore, thematic analysis works both to reflect reality and to unpick or unravel the surface of 'reality'.

In this study, thematic analysis is performed following the six processes of coding phases outlined by Kvale and Brinkmann (2015) and Braun & Clarke (2006) to create established and meaningful patterns. The first step is familiarisation with the data to sort out ideas through transcribing, reading, and re-reading. Second, codes are generated in a systematic approach across the entire data set, in order to collate data that are relevant to each code. Third, themes are identified for coding, and to gather the data for each relevant and potential theme. Fourth, these themes are reviewed to ascertain that they work in relation to the coded extracts and the entire data set, to generate a thematic 'map' of the analysis. After that, the themes are defined and named to tell a clearer story of the data. Finally, a scholarly report of the analysis is produced that relates back to the research question and literature. These six steps to analyse the quantitative data using the thematic approach were organised and expedited through the use of the NVivo 12 software. The qualitative responses from the themes were arranged in frequency tables to apply quantitative methods in the analysis for the three teaching methods (student-centred, teacher-centred, and both methods combined).

Results and discussion

This section highlights each of the main themes and their sub-themes that were identified in the data by frequency analysis of the teacher-level interviews. The key theme

that emerged from the data analysis is teaching methods (student- and teacher-centred methods). This theme seems to have an influence on the mathematics outcomes of students. Therefore, the interview results related to the teaching methods of teachers will shed more light on how teaching affects Grade 12 students' mathematics results.

Teaching methods

The kind of teaching approach employed by teachers can have an impact on students' mathematics learning in the classroom. This is evident in the mathematics teachers' responses, in which they report using different methods in delivering their mathematics lessons. It was clear from the responses that either traditional (teacher-centred) or student-centred teaching methods are the approaches most often used to teach mathematics at schools in Port Moresby. However, there are a few teachers that apply both teaching methods in the delivery of their lessons. These teaching strategies are now discussed separately to present a deeper understanding of how they affect students' mathematics results.

Traditional (teacher-centred) method

The interview analysis revealed that most teachers use traditional methods to deliver their lessons. In other words, the teachers are verbally explaining the mathematics concepts/ideas using a blackboard and/or textbooks, handouts, worksheets and charts. This suggests that these teachers are more dependent on writing notes from textbooks on the blackboard, verbally explaining the mathematics ideas, and giving handouts to assist students in exercises and activities. One of the teacher participants said:

> I use two basic methods. A) use the normal method using blackboard. I stand at the front, write down the topic, introduce topic briefly and use examples on the board. The main method used. B) issuing textbooks and handout. They have the resource with them, write topic, give the example there on the board, and tell them you have the example in the textbook or handout you have. [Teacher 4]

Another teacher participant highlighted that charts and visual aids assist to verbally explain the main points with examples in the lessons, and noted that they give exercises to the students derived from these resources. This implies that these teachers are not providing guidance to students individually, but instead are using a lecture approach similar to a higher education setting. The teacher participant highlighted that:

> When I go to class, I use chart or visual aid and stick them on the blackboard. Put up the main points and explain them to the students. After discussing the main points, I explain and go through the examples. Then I tell the students to do the activities. It's like lecture type. [Teacher 10]

Interestingly, another teacher participant mentioned the specific step-by-step strategies they employed in the classroom and identified their own approach as a teacher-centred method. This method includes giving out handouts to students, with verbal explanations carried out on the blackboard. However, the effectiveness of the handout method was not explained in detail by the participant. The teacher participant said:

> Firstly, I provide notes in the form of a handout, all the explanations, especially examples and exercises are on the handout. While they are looking through the handout, I explain to them. When I am explaining, I go through the same examples in the handout on the blackboard because this is mathematics, and sometimes they might not understand what they are reading. So, I have to do it on board by writing them again, explain the maths problems step by step. [Teacher 14]

Another teacher participant remarked that the explanation of details with examples assists students in understanding and practicing mathematics exercises. Within this method, more practice exercises are therefore encouraged for students to better understand mathematics ideas. The teacher participant stated that:

> Before I give the activities, I explain and I have to go in detail explaining the examples. They have to understand first before I give them exercises to do. First, I give the practice exercise and once they are done, I give them allocated time for these practice exercises. That is to see whether they understand the examples given. [Teacher 7]

Similar to teacher participant 4, a great deal of dependency on textbooks and worksheets is evident in teacher participant 9's method of teaching. This teacher feels comfortable with providing summarised worksheets to students so that they can follow a set method employed in response to challenges, as there is a shortage of textbooks at the school. This particular teacher highlighted that, with this method, lessons become more teacher-centred and students are not actively involved, as they get confused working by themselves. The teacher participant emphasised that:

> Just textbook alone. Teaching with the textbook is the old passion, ah, but teachers need to be more prepared, ah. It's the preparation part that always makes the teaching of mathematics more interesting. It's the interest, ah, how you prepare and present the lesson. Now teachers tend to use textbooks more than producing work. It's like what is prepared in the textbook is what is taught. [Teacher 9]

Another teacher participant said:

> Like you mean chalkboard. For that, we're using especially... chalkboard sometimes and textbook. But we do not have plenty of textbooks. We're just using handouts, duplicating handouts from textbooks. Sometimes we use charts to write our notes on paper so that students can copy the notes, examples, and exercises on charts. We use these methods. [Teacher 2]

One of the reasons teachers rely on using the chalkboard (blackboard) is because there are too few textbooks for each student in the classroom. This forces teachers to duplicate handouts from the only textbook they possess.

Student-centred method

Student-centred teaching is one of the most effective methods used in many classrooms by mathematics teachers. This method is increasingly favoured by teachers in PNG over the traditional, teacher-centred method described above. However, only four teachers interviewed for this study emphasised that they use student-centred methods such as group work, peer discussions, and presentations. These teachers give group work with specific instructions and organise students according to their ability levels to assist each other in learning while acting as a facilitator.

Teacher participant 6 focuses on group work in the classroom with a student within the group taking on leadership responsibilities, thereby allowing the students to take responsibility for their own learning and present their findings to the class. Besides these methods, this teacher also promotes students with different ability levels to work together in order for them to learn from each other. These two approaches allow the teacher to facilitate classroom learning while the students take control of their own learning. This teacher participant stated that:

> This method is to give students group work and select someone to be the leader. After the explanations are done, the group leader takes care of the group. Later they do their presentation. Another method is they work in pairs instead of a big group. I select students who are fast workers, those who can work with supervisors, and I put them with someone who is very weak and slow. In that way, the person who can be able to understand more helps or assists, and I move around to assist in one way or another. (Group work and demonstration are the methods.) [Teacher 6]

A similar approach employed by teacher participant 6 is evident in the interview of teacher 3, who told of how the teacher-centred approach is strategised in the delivery of the lessons in their classroom. First, concepts are explained, and then group/peer work is given for students to check their own work and solve problems together. The teacher participant said:

> First one is, ah, teacher-centred kind of lesson that the teacher talks and explains, ok. Teacher to students and another strategy is using groups, checking work in groups, ha, giving problems to each, allocating a problem to each groups and students work in groups. Working in pairs. Identifying students work in pairs solving problems together. [Teacher 3]

Furthermore, teacher 7 reported that to facilitate group work, they drill students for their speed and accuracy skills in a given time frame, and later further explain details of mathematics problems, as PNG students typically assume that mathematics is a difficult subject. This indicates that students' attitudes towards mathematics can have an effect on their mathematics learning. However, in their classroom, this teacher offers a detailed, clear explanation and facilitation of group work designed to assist students to overcome this challenge. As such, this teacher participant highlighted that:

> Once they understand within the allocated [time], within, for instance, ten minutes, after that, I ask them to work in pairs or in groups in order for them to help each other. Sometimes maths is a difficult subject in PNG. There are many students who find it very hard to understand maths, so sometimes in my lesson, I try to break the example down into detail to explain for students to understand the concept of how to solve a particular problem. [Teacher 7]

Teacher participant 19 pointed out that their teaching method involves "mostly... demonstrations and explanations. Get students to work in pairs and as well as in groups" [Teacher 19]. For teacher 19, explanation and demonstration of ideas are employed first, followed by students being encouraged to work in pairs to explore and understand the concepts.

Using both teaching methods

Three out of the 19 teachers interviewed use both teaching methods (teacher and student-centred methods) to deliver their mathematics lessons. Interestingly, two of the participants highlighted that:

> First one is, ah, teacher-centred kind of lesson..., the teacher talks and explains, ok. Teacher to students, and another strategy is using groups, checking work in groups, ah, giving problems to each, allocating a problem to each group and students work in groups. Working in pairs. Identifying students work in pairs solving problems together. Ha. The other one is teacher-to-student. One-on-one assistance but not in class, outside of class. [Teacher 3]

I give a problem that may be on paper or on the board. It may be ten simple questions to do with multiplication, division, word problem, or a graph. I give back to them, and they must come up with an answer. Tell them to stop after ten minutes, and they have a group discussion for two minutes. Before, the slow kids had problems understanding, plenty of work for me, but I put them in groups for group talking, and someone has the answer to help the others. I work around to hear what they are doing to and assist them. [Teacher 18]

The two teachers above have used both methods in their teaching, with the traditional method employed in the first part of the lesson to explain ideas and procedures, while the student-centred approach is used in the second part to emphasise the importance of solving mathematics problems in groups for better understanding. It is interesting to note how they have planned their lessons in a similar format. These two teachers seem to understand the importance of both methods in the students' learning process and have employed them meaningfully in their lessons. However, there are also challenges associated with employing these teaching methods effectively. Two participants said:

Most basically like our... current population, before it used to be 1:35 students, currently this 21st century, especially, we have like 1: 65 to 70 and so forth. The previous methods of... teaching, ah, some strategies that we used we have used in the past we don't apply them at the present [Teacher 1].

Teaching methods are aids like handouts, and textbooks. We have limited textbooks as I've said earlier, and then access to the internet and so forth which is a major problem in our school. Most of the students and then the school, we don't have internet access so... that is a major problem in our school... in order for us to teach them those lessons... that can really keep them up to the latest standards. [Teacher 2]

These participants indicated that the increase in class sizes and a lack of learning resources at schools have hindered and affected teaching methods in the classroom. It is evident in the interview analysis that learning resources promote effective mathematics learning, and consequently improve students' mathematics results.

The next step in the analysis is to compare the three teaching methods used by the teachers described above in qualitative analysis through quantitative methods. This comparison is conducted by analysing the teachers who are using each of the respective methods. A simple statistical one-way analysis of variance (ANOVA) test was employed to predict which of the three teaching methods had an influence on the students' mathematics results. This approach was employed to identify the influence each teaching method has on the Grade 12 students' results. The procedure was employed to gauge a clear understanding of the methods that affect

mathematics results. The outcomes of this analysis are displayed in the three tables below with their descriptions.

Table 1: Descriptive statistics of maths results for the three different teaching methods.

Maths Results					95% Confidence Interval for Mean			
Teaching Methods	N	Mean	SD	Std Error	Lower Bound	Upper Bound	Minimum	Maximum
Teacher Centred	209	494.91	6.12	0.42	494.77	495.74	458.79	514.85
Student Centred	47	500.06	7.75	1.13	497.79	502.33	484.75	519.62
Both Methods	47	500.94	5.48	0.82	499.27	502.60	491.61	515.45
Total	303	496.60	6.79	0.39	495.83	497.37	458.79	519.62

The descriptive statistics associated with the three teaching methods employed by teachers are reported in Table 1. It can be seen that the teacher-centred method is associated with results numerically below the mean level (M=494.91), and the student-centred method (M=500.06) and both methods (M=500.94). The total mean is 496.60, which is not too different from the mean of the teacher-centred method.

Table 2: ANOVA analysis result of the overall teaching method.

Maths Results	Sum of Squares	df	Mean Square	F	Sig
Between Groups	1988.02	2	99401	24.94	0.00
Within Groups	11836.11	297	39.85		

Table 2 shows the output of the ANOVA analysis, indicating whether there is a statistically significant difference between our group means. The results shown in Table 2 indicate that the significance value is 0.000 [F (2,994) = 24.94, p = .000)], which is below 0.05 and, therefore, there is a statistically significant difference in the mean of the three teaching methods used to determine the students' mathematics results.

Table 3: Post hoc tests for the each of the teaching methods for comparison.

Dependent Variable: Maths Results
Tukey HSD

(I) Teaching Methods	(J) Teaching Methods	Mean Difference (I-J)	Std.Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Teacher Centred	Student Centred	-5.15	1.02	0.00	-7.55	-2.75
	Both Centred	-6.02	1.04	0.00	-8.49	-3.56
Student Centred	Teacher Centred	5.15	1.02	0.00	2.75	7.55
	Both Centred	-0.87	1.32	0.78	-3.99	2.23
Both Methods	Teacher Centred	6.02	1.04	0.00	3.56	8.49
	Student Centred	0.87	1.32	0.78	-2.25	3.99

It is apparent from the results that there are statistically significant differences between the groups as a whole but the differences between the three teaching methods have not yet been shown. Therefore, the post hoc test of one-way ANOVA shown in Table 3 illustrates the multiple comparisons, showing how the teaching methods differed from each other. There is no significant (p>0.05) difference between the student-centred teaching method and mixing both teaching methods. However, it is also evident from the mean results from Table 1 and post hoc test results from Table 3 that the student-centred teaching method and mixing both teaching methods score significantly (p<0.05) higher than teacher-centred teaching methods. These results suggest that employing student-centred teaching methods and mixing both teaching methods makes a significant difference compared to using only the teacher-centred teaching method.

Discussion on the teaching methods

As expected, *teaching method* is one of the main themes that emerged across the interviews. All participants reported that teaching methods have an impact on students' mathematics results; however, the findings from the interviews reveal that there is more impact for some participants than others due to the different teaching methods employed in the delivery of the mathematics lessons. Most of the participants employ traditional methods, with some participants using student-centred methods, and a few incorporating both methods.

It is important to note that teachers' actions and inactions may impact positively or negatively on students' learning experiences in mathematics (Ampadu, 2012; Yasmin et al., 2019; Schotgues, 2022). This is because students' learning experiences are to a large extent controlled by their teachers, and teachers tell students which questions to solve and which methods to use. Most of the participants in this study believe that students learn and perform better in mathematics when teachers are at the centre of the teaching process (i.e., the teacher-centred approach). This means that teachers explain concepts and take full control of the learning session (Yasmin et al., 2019). However, the results of the post hoc test in Table 3 reveal that the student-centred teaching method, and mixing both teaching methods, make a highly significant (p<0.05) difference on students' mathematics results, compared to teacher-centred methods. In other words, teachers employing student-centred methods and mixed-methods in teaching at secondary schools in Port Moresby are more likely to influence Grade 12 students' mathematics results than the teacher-centred teaching method. The teacher participants who employed student-centred methods stressed that these methods enable students to be more responsible for their own learning, with more group discussions to assist each other's learning. Studies have also argued that student-centred methods promote discovery learning to understand and learn new ideas, as well as encouraging students to work cooperatively with peers when tackling mathematics problems, and ultimately assisting them to obtain better results (Emre-Akdogan & Yazgan-Sag, 2019; Lahdenperä et al., 2019; Leong et al., 2019). This argument is supported by the ANOVA

test results in Table 3; that teachers using student-centred methods and both teaching methods are likely to influence students' mathematics results. The teachers surveyed who incorporate both teacher and student-centred teaching approaches use the former to explain step-by-step process on the blackboard, and the latter to actively engage students' in-group work (Oko, 2022).This approach is similar to that found in a case study by Ampadu (2012) in Ghana regarding students' perceptions of teachers. The combination of both teaching methods seems to assist students to understand mathematics ideas and concepts, and they are likely to perform better in mathematics.

These findings clearly indicate that student-centred teaching methods and both methods make a significant difference in the mathematics results of the students in Port Moresby. This result also supports the researcher's experience teaching in secondary schools in Papua New Guinea. However, the teachers interviewed who adopted these two methods did not go into detail about how they understood and developed their students' skills, in order to improve their teaching practices and better communicate mathematics concepts in the classroom.

Conclusion

This study's findings from the interviews with nineteen Grade 12 teachers who participated in this study exhibited the primary theme that emerged from the results: teaching methods. Sub-categories within the main theme assisted in supporting and providing insight into the broader theme. The aim of this study was to capture information that might have been missed in teacher surveys to facilitate an in-depth exploration of the quality of teaching that affects students' mathematics results at the teacher-level.

It is clear from the findings of these interviews that the student-centred method and mixed methods have significant (p<0.05) effects, compared to the teacher-centred method. As the interview results have shown, the teaching methods adopted by teachers can assist and promote students' learning. However, as identified in the analysis, teachers also face challenges such as student population increases and a lack of learning resources in classrooms that may affect the practical delivery of lessons to effectively communicate content knowledge. On a positive note, some of the participants involved in this study acknowledged that they encourage students to have positive attitudes towards mathematics learning. They also suggested approaches to help students overcome their struggles with mathematics when the subject becomes difficult, assisting them to believe in their own mathematical abilities in order to obtain better results. These interview results support the literature review that teaching methods have a significant effect on students' mathematics results.

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Preface to the special section

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Kaplan Australia is an Australian higher education provider, consisting of Kaplan Business School, Kaplan Professional, and four pathway colleges. All educators within Kaplan Australia have the opportunity to expand and share their cognate area's knowledge and increase their pedagogical skills and knowledge through various scholarship activities within the Kaplan Scholarship of Teaching and Learning (SoTL) program. At its core, Kaplan's SoTL program aims to answer Lee Shulman's (2011, p. 4) question: "How does someone who already understands something learn to teach what they know to someone else?". It is through this program that Kaplan's educators learn not only to teach well but to understand and engage with their craft in a holistic manner.

One such avenue for growth is the Symposium of Learning and Teaching (SoLT). SoLT is an annual conference led by a small team of employees selected from across Kaplan Australia. It launched in 2020 on the Adelaide campus, with on-campus, virtual, and poster presentations over two days, before the COVID-19 pandemic lockdowns moved it to a fully online version in 2021. While Kaplan is not registered as a research-focussed institution, we do follow Ernest Boyer's (1990) view on academic scholarship, which acknowledges that the craft of teaching is dependent upon reflective and inquiring educators who engage in a strong community of practice that shares its in-class challenges and triumphs for the community's benefit. The 2021 Symposium of Learning and Teaching's theme was "Empathy, Kindness, and Presence: Uncovering the Human(e) Element of Teaching and Learning". This topic was chosen during a tumultuous time of educational, professional, and personal upheaval across the world, due to the global pandemic.

The 2021 SoLT conference theme, conceptualised by Dr Susan Robinson, a senior lecturer at Kaplan, invited participants to consider the ways that Garrison's (2017) notions of teaching presence, cognitive presence and social presence inform the human element of teaching. Teaching presence occurs wherever educators integrate the cognitive and social environment in the pursuit of learning goals. Cognitive presence describes the extent to which participants in a learning community manage to construct and assert meaning through reflection and discourse (Garrison 2017), which was a key objective of the Symposium. As educators are also the 'architects' and facilitators of the learning environment and the main source of teaching presence, participants were encouraged to discuss matters of design, learning adjustments, content, pedagogy, and assessment and how they facilitate the presences throughout their teaching repertoires. Central to the discussions in the context of the pandemic, colleagues also raised issues about the struggles and challenges of their ability to identify with a group, communicate openly in a trusting environment, and develop personal, professional, and affective relationships (Garrison, 2017) through social presence – in empathetic ways!

The theme encapsulates precisely what this group of exhausted educators were reflecting upon in November 2021, as they struggled through personal fatigue to provide quality and compassionate teaching to an even more exhausted student body. What is even more remarkable about this 2021 symposium is that of the thirteen presentations plus two keynote speakers over the two days, only a minority of presenters had presented before at such an event. The effort and bravery of educators willing to share, for the first time, their personal and professional insights into teaching and learning during such an exhausting period is a testament to the strength of Kaplan's educators and their commitment to their community of practice. As such, a sub-group of presenters seized the opportunity to turn their presentations into articles for submission to the Journal of Applied Learning and Teaching. It is our pleasure to present to the reader a selection of insights from Kaplan's 2021 Symposium of Learning and Teaching, one that spread the

importance of having empathy and kindness for our students and ourselves. In doing so, this special section allows us to disseminate our learnings to JALT peers for review, further learning, and hopefully, the transformation of educational practices in higher education.

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Teacher presence through the lens of kindness

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Abstract

In March 2020, one Australian higher education provider, like many others, found itself pivoting into fully online teaching as the nation managed the COVID 19 pandemic and campuses closed. Bespoke professional learning workshops were offered to all staff, many of whom demonstrated the professional willingness to change their practices in order to offer students the highest quality learning experience that was possible in the demanding and unexpected conditions inherent in the pandemic. There were many challenges revealed through ongoing discussions amongst staff as a community of learners. Throughout the discussions, the concept of *presence* (Garrison, 2007, 2017) was recurring - teacher and student presence in the newly mandated online teaching context. The centrality of kindness was identified as a second concept that mediated academic discussions and emotions. Both concepts form the focus of this paper. The positioning of kindness within Garrison's framework of inquiry (2017) will be proposed as a proposition that is worthy of further research particularly if higher education in Australia continues to be uncertain and fraught with change.

Introduction

In March 2020, one Australian higher education provider, like many others, found itself pivoting into fully online teaching as the nation managed the COVID 19 pandemic and campuses closed. This situation was equivalent to a national state of emergency, and this organisation invested in the necessary resources to support staff in working off campus and transitioning their traditional teaching methods into fully online mediums. Bespoke professional learning workshops were offered to all staff, many of whom demonstrated the professional willingness to change their practices to offer students the highest quality learning experience that was possible in the demanding and unexpected conditions inherent in the pandemic. There were many challenges revealed through ongoing discussions amongst staff as a community of learners, one of which was student engagement and their ongoing commitment to classes that were not delivered as face-to-face teaching. Throughout the discussions, the concept of *presence* was recurring - teacher and student presence in the newly mandated online teaching context. On reflection, the centrality of kindness – kindness amongst the community as well as central to student engagement – was identified as a second concept that mediated academic discussions and emotions. Both concepts form the focus of this paper. The positioning of kindness within Garrison's framework of inquiry (2017) will be proposed as a proposition that is worthy of further research particularly if higher education in Australia continues to be uncertain and fraught with change.

The place of kindness

Research evidence (Cassidy & Shaver, 2008; Exline et al., 2012; Rowland, 2018; Tashjiian, 2018) overwhelmingly confirms that being kind and being a recipient of kindness positively influence a person's sense of well-being (Post, 2005) – an important consideration during a crisis. A great number of physical and emotional benefits which support people to be happy, confident, and well-rounded individuals have been identified by researchers from the post positive psychology field, (Carter, 2011; Hamilton, 2017; Layous et al., 2012; Passmore & Oates, 2022). Some of these include the proposition that kindness:

- increases psychological flourishing;
- increases happiness and self-esteem;
- reduces social anxiety;
- increases self-esteem and optimism;
- heightens feelings of self-worth;
- diminishes social anxiety.

Kindness is conceptualised as both a behaviour and an action; therefore, kindness is best experienced by engaging in acts of kindness and exploring the social attributes that support well-being. It can be argued that kindness is a gesture motivated by genuine, warm feelings for others. It has been proposed (e.g., Otake et al., 2006) that kindness has three main facets:

- considering the feelings of others;
- demonstrating acceptance, courtesy, and love towards others; and
- behaving honourably towards them.

Throughout the pandemic of 2020-2022, the concept of and interest in kindness has surged through social media and the press headlines as a significant factor in individual and community well-being (See for example: gratefulness.me; growingwithgratitude.com; kindnessfactory.com; kindness.org; greatergoodberkeley.edu).

The concept of kindness is not necessarily explicitly addressed in the higher education literature. However, the common message across the different forums is best captured by Kath Koschel and her work through the Kindness Factory where she states: "Kindness is the key to human connection... despite the loneliness epidemic" (Koschel, 2021).

We have learned over the past three years that many modern lives are impacted by increasing feelings of demoralisation, depression, and alienation due to ongoing trauma, uncertainty, and crises. This is true of the broader society, including higher education students and staff, in the context of this paper. Against a backdrop of uncertainty, kindness has been hailed as a powerful concept and tool for addressing negative emotions and feelings and to generate a sense of well-being, or 'psychological flourishing' across all communities, cultures, and countries. What we have learned, in brief, is that acts of kindness, whether they be set in education, business, or cultural situations, share an emphasis on the relational (Noddings, 2005) and assist in embellishing and maintaining personal and professional relationships. Recognising the place of kindness, particularly in education, requires the recognition of differential power and positionality, and a recognition of the positions of other people not just our own (Archer, 2007). It can be argued that in serving the needs of the student, the successful teacher attempts to see things from the student's perspective – an essential prerequisite of kindness. To become a kind teacher involves more than just a teaching tool. What is required is that the act of teaching must be built on a foundation of moral values and personal qualities that embrace kindness. This will be revisited a little later in this paper.

Analysed and discussed in this paper, is the case of one higher education provider and an analysis of how a sample of their teaching staff responded to the challenges of the pandemic and the teaching of international students in the period 2000-2022. The two concepts to be elaborated upon in this paper are presence (Garrison, 2017) and kindness. The interplay and importance of two key concepts will become evident as a way of managing the challenges of the pandemic and, at the same time sustaining quality teaching and enhancing the well-being of staff and students.

Firstly, the context will be presented, then the focus on Garrison's model of presences (2019) will be briefly articulated, and finally, the importance of pedagogical kindness will be proposed as central to new ways of working as the context of higher education undergoes change.

Context

This paper focuses on the actions and outcomes of one higher education provider as it transitioned into fully online teaching as the nation managed the COVID-19 pandemic and campuses closed. Early in 2020, the organisation moved towards establishing a community of learners designed to address what was problematic for academic staff in shifting quickly from face-to-face teaching to online or hybrid learning mediums. The community consisted of a diverse group of academic staff from across all education units of the business, staff who participated voluntarily in a professional learning series provided in-house within the company, facilitated by a team of expert academics. Over three-quarters of the teaching staff participating in the community of learners indicated that they had never taught online or had little experience teaching online prior to this point. In discussions, it was openly shared that only about 10% had limited experience teaching online while only 5% of participants indicated that they had extensive experience teaching online over a period of 6-10 years. As the weeks unfolded, the challenges expressed by teaching staff in moving quickly from face-to-face teaching to online delivery, due to students moving off campus, were many. However, there were three common challenges for most, including:

- technological expertise;

- the use of authentic pedagogy and assessment in the changing learning environments; and

- the challenge of sustaining student engagement as they entered into mandated online learning from places that were no longer the traditional classroom.

Within this context there were some existing, but rather unique features that characterised learning and teaching across the settings. Academic staff, pre-covid 19, were committed to a style of teaching that determined that lecturing is not a preferred pedagogy and preference is given to engaging students in learning as a collaborative and critical community. As a result, many academic staff struggled to imagine how these aspirations could best be achieved in an online context. Further, the staff were purpose-oriented in their teaching and conceptualised the act of teaching as leading learning where active students' involvement was essential. This proved even more challenging as many students left the classroom context for months and years at a time, to isolate themselves in a safe environment; settings which were often in crowded student accommodation or in venues that were located outside of Australia.

Fortunately, the employing organisation was generous in its funding of the necessary resources to support staff in working off campus and transitioning their traditional teaching methods into fully online mediums. The company offered bespoke professional development workshops to all units and businesses across the national corporation, complete with experts in professional development and with the necessary resources and interactive platforms already established. A sense of urgency accompanied the building of an online learning community and required a great deal of intensive professional learning for academics in a quick turnaround time. Not to be limited by funding facilitated a strong response to designing a suite of professional learning activities, which were taken up by a large cohort of academic staff across the national education units within the company.

The importance of presence

Central to the concerns within the diverse community of academics were matters relating to students' engagement in learning while situated in diverse online learning environments; engagement that was impacted technologically, pedagogically, and intellectually as many new challenges emerged on a daily basis. The Garrison Inquiry Framework (2007, 2017) is an apt tool to utilise as a lens to delve deeper into these challenges as it was specifically designed to create a community of learners *where students are fully engaged in collaboratively constructing meaningful and worthwhile knowledge* (Garrison, 2019, p. 25). The model (Garrison, 2007, 2017) was also designed to critique online teaching and learning in higher education, through the interplay of three perspectives: (i) teaching presence that shapes the educational process of learning, (ii) cognitive presence that invites the collaborative construction of knowledge through inquiry learning, and (iii) social presence or the capacity to connect as a community through learning including staff and students, both professionally and personally. In many ways, this is what the academic staff were referring to in using two simple words – student engagement – when on reflection, it was the multifaceted notion of presence that underpinned concerns.

From the perspective of social presence, the academics expressed a desire to examine and learn how they could best maintain social connections and dialogical communication amongst educators and students on both a personal and a professional dimension. The pandemic created a context where disconnections were highly plausible for a number of reasons – poor technology, inept use of technology, locations where students felt disempowered or marginalised, and increasing family, health, and work pressures on students who were displaced from the traditional classroom through no fault of their own. This was even more difficult in this context where student cohorts were characterised by an extensive range of cultural values, gender and social positionings and language capabilities. Building group cohesion was so important, but the academic teams were unsure of how this could be manifested in the online learning community.

It was acknowledged that cognitive presence was a real concern in a new context, whereby learning was being reconstituted to call on greater learner autonomy (Garrison, 2007) in an online space. The community, as well as educators individually, recognised and felt very concerned that the intervention strategies that they had used in the face-to-face space for many years were no longer available, leaving students to their own devices – at times vulnerable. This challenging context required new forms of learner autonomy for which many of the students and the academic staff had not been prepared and were largely alone in their settings. At the same time, based on the ideological positioning as educators within the company, they were committed to purposeful, sustained inquiry-based learning as a scholarly community, interrogating subject matter knowledge through innovative and interactive pedagogies. The common question was, not if, but how such pedagogies could be enacted in an online learning environment.

Teaching presence was the key responsibility of the academic, designed to achieve the designated learning outcomes but also to generate positive student engagement, student satisfaction and a sense of community (Garrison, 2007, pp. 64-67). These themes dominated the professional conversations that were central to the bespoke professional learning series. As Garrison stated some time ago "developing an online experience is a daunting challenge" (2007, p. 26). To do so "on the run" is problematic particularly when the learning moves beyond the transmission of content into a realm where constructivist principles of learning require social and cognitive engagement built on trust, transparency and systematic and sustained critical conversations. These were the challenges that educators were facing; these very challenges are comprehensively expressed in Garrison's Frame of Inquiry Learning (2007, 2017).

Reflection and discussion

As the months and years unfolded from 2020 until 2022, the teaching academics within the company continued to transition their practices over time and address many of the challenges outlined above. The student evaluations continued to reflect high levels of student satisfaction for, on average, 85% of students. The professional learning continues to this day, with expert appointments continuing to provide the resources and reviews required to ensure quality learning for students throughout Australia's greatest disruption to higher education. The uncertainty continues as borders open; student visas are allowing students back on campus, and the government reflects an increasing positive interest in higher education providers – albeit new policies abound. However, many lessons have been learned and the academic staff are varied in their views as to their preferred modes of teaching for the future. However, there is no doubt that the academic community is richer educationally, pedagogically, and technologically as teachers and learners. On reflection, there are a couple of significant questions that have arisen since 2020 that go beyond teaching and learning as a professional craft to shift the gaze to the professional educators themselves, namely:

- In this crisis situation, what was it that sustained the professional and personal motivation of academics?

- In times of sheer exhaustion, how did academic educators maintain engagement and enhance pedagogy throughout the crisis period?

Such questions require formal, ethically approved research. However, two initial propositions are outlined forthwith.

Proposition one: What was evident, particularly when the professional development was instigated, was the presence of a strong community of inquiry across academics from the different business units within the organisation.

The sustained engagement of the academic community across the organisation was enhanced through the bespoke professional learning series that effectively sustained a community of professional educators as the various phases of the crisis unfolded. Many staff continued to struggle with connectivity issues, bandwidth, recording lectures and workshops, accessing resources, and the broader issue of understanding the technology they were required to use. Further a number of staff found it difficult to manage multiple windows and different software packages concurrently. Many lacked expertise with Zoom and were "learning on the go" which sometimes threatened their status as experts.

In the first instance, while the sessions ostensibly focused on a range of teaching topics, (e.g., How to use Zoom and Off2 classes; Open forums for discussion: online interactions; Work-arounds on a day-to-day basis), the dynamics of the sessions reflected the principles of constructivist learning and the building of collaborative learning communities. The facilitator would initiate a session which would often be overtaken by a problem-solving session led by the participants based on experiential knowledge. This often resulted in one of the academic staff being elected to run the next session where demonstrations and active learning were the dominant discourses. Leadership was distributed amongst the community membership of academics; conversations were critical but respectful and the focus of learning was based on the extant, expressed needs of that community. Membership was fluid based on open and transparent communication, self-auditing, and limited surveillance by authorities. Experienced staff with years of employment in the company were comfortable as neophyte learners, while in contrast, newly appointed staff often became the leaders of learning alongside the expert facilitators.

What became evident within and across the academic teaching staff who attended the professional learning series were the principles central to the interplay of teaching, cognitive, and social presences (Garrison, 2019) that replicated what the staff were wanting to create with their own students in the online learning environment in this context. Teaching presence occurs wherever educators integrate the cognitive and social environment in the pursuit of learning goals. Cognitive presence describes the extent to which participants in a learning community manage

to construct and assert meaning through reflection and discourse (Garrison, 2017), as depicted in Figure 1 below.
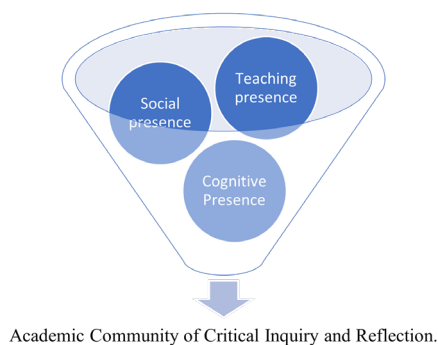

Academic Community of Critical Inquiry and Reflection.

Figure 1: Academic Community of Inquiry formulated through bespoke professionl development across business units.

The principles of delivery of the bespoke professional learning series led by the expert facilitators and adopted by the academic community as it evolved reflected the work of Garrison (2007, 2017) and are implicit in the Framework of Inquiry instrument for online teaching. Some of these principles utilised in this context include:

1. Each participant should establish professional and purposeful relationships with colleagues within the learning community in safe and risk-averse ways that respect the range of cultural, political, and educational positioning of all members.

2. Communication between all participants should be open, transparent, respectful, and egalitarian in order to sustain the viability and health of the community.

3. Conversations should be critically reconstructive and aligned with the purposes of the learning community.

4. Intellectual engagement should be encouraged for all, and the responsibility of all, through active participation and demonstration, debate and discussion, exploration of new ideas and how they can be applied differently across contexts, and above all, through meaningful inquiry and the generation of evidence of viable resolutions.

5. Personal and professional meaning-making are valued as open, shared, and dignified processes, and they are central to learning as a professional community

6. Reflection and reconstruction of practices are both personal, professional, and communal.

While this is only a sample of the principles adopted by the academic learning community central to this paper, they can also be easily transposed to a community of student learners engaging in online learning. The principles adopted here closely reflect those of Garrison (2019) used in establishing online collaborative communities; principles that underpin the interplay of teaching, and social and cognitive presences. But there is more to be learned from this educational experience as can be witnessed in Proposition Two below. Proposition two: Within the complexities and dimensions of the interplay of teaching, cognitive and social presences of teaching and learning transitions, a component of kindness is identifiable that:

(i) kept the academics and students engaged and active as a community; and

(ii) generated bonds and a deep sense of connectedness amongst staff and the leaders of the professional learning team.

Interestingly the concept *of kindness is singularly silent* in accounts of teaching excellence (Skelton, 2007) and reports on higher education. In the current auditing culture that shapes higher education in Australia, we witness the importance of accountability and the privileging of the regulatory and standards discourses. In many higher education contexts, as Clegg and Rowland (2010) point out, human attributes such as kindness are subverted by the neoliberal discourse that forms the hegemonic modes of communication of compliance within higher education in Australia. References to attributes such as respect, care, and humility are seen by some to be "soft" and may be perceived as less rigorous qualities inherent in the act of teaching; qualities that lead to the downfall of academic standards. However, throughout the pandemic, within the organisation that is the focus of this paper, this was not the case. In contrast, academics called on and demonstrated kindness to each other and towards students when times became tough. In fact, it is our contention that as times got tougher, many academics and leaders became kinder, despite the continuation and even expansion of the regulatory discourse and government intervention into higher education. What became evident was that academic staff were very kind to one another across the community, helping each other solve personal problems, pedagogical challenges, especially technological problems, and organisational encounters. The following discussion focuses on what we have termed pedagogical kindness, a quality that influenced not only the existing teaching presence within the community, but became imbued across the cognitive and social presences as well.

"The nature of the connection between kindness and teaching rests not only in that both behaviours are innately human, but that both kindly acts and pedagogical acts require the actor to identify with the concerns of the other" (Clegg & Rowland, 2010, p. 724). In this context, the boundaries between kindly acts and pedagogical acts became blurred creating a new practice referred to as pedagogical kindness. In this sense, actions of academic staff in this report engaged in work that was irreducibly social (Ashworth,

2004), intellectual, and pedagogical and it was underpinned by the attributes of kindness throughout and across the presences. Clegg and Rowland (2010) shed some light on the complexities of kindness in the context of teaching and learning, by emphasising that human attributes such as kindness are central to teaching presence and should not be deemed anti-intellectual or lacking in rigour. The authors reiterate that kindness enhances human flourishing, surely the objective of quality teaching and learning, and should not be considered *out of place* (Douglas, 1966) in the deeply intellectual environment of higher education. In fact, what we witnessed was the infusion of kindness values and attributes across teaching, cognitive and social presences within academic staff teams and throughout the teaching and learning episodes and interactions during this time, albeit in very difficult online conditions. This reflects Clegg & Rowlands' argument that:

> An act is kind in an academic setting in as much as it is pedagogically sound but thinking from the perspective of kindness involves more than instrumentality. To be a kind teacher involves more than just a technical judgement of utility. It imbues the act of teaching with qualities and values (Clegg & Rowland, 2010, p. 724)

This is a somewhat difficult task in the context of compliance and regulation in Australia. However, within this context, the organisational culture and the constructs of the community of inquiry facilitated the possibilities of kind teaching, learning and intellectual development that was strangely powerful throughout the pandemic, when many teachers and students were at their worst physically and emotionally. What was also evident was that acts of pedagogical kindness did not dissolve the presence of cognitive engagement but alternatively enhanced the quality of learning, increased the degree of student engagement in many cases and may have led to very positive student feedback regarding the student experience. This contrasts to many competitors and higher education institutions who experienced plummeting scores throughout 2021, while this organisation maintained its good rankings regarding student engagement during that same period.

In rationalising the experiences that surrounded pedagogical kindness within this community, we suggest that we have captured Garrison's notions of "being there' through authentic well-intentioned professionalism (MacFarlane, 2004; Clegg & Rowland, 2010). Further, we argue that the act of pedagogical kindness became infused into and mediated across the three presences of a community inquiry facilitating the "boundary crossing" (Cramp & Lamond, 2016) experienced by both academics and students as they transitioned into an online environment. It is too early to suggest a reconceptualization of Garrison's inquiry framework for online teaching (see Figure 2 below). However, the infusion of the pedagogy of kindness across Garrison's three presences has enabled the academics to strengthen their community of learning not only through professional learning but to find a place for kindness in their presence as teachers interacting closely with their students in respectful, inclusive, engaging, and kind pedagogies.

We have also witnessed that through considering the feelings of others and encouraging students to do the same throughout the pandemic, kind academics have reduced the anxiety of online teaching for themselves, their peers and their students. Concurrently, it appears that the presence of kindness from a social and cultural perspective has enhanced human flourishing across staff and students and has generated evolving forms of group cohesion through stressing the importance of both staff and students "being there". This has been achieved through strategic and deliberate action by academics with a view to enhancing the social, cultural, *and* cognitive dimensions of learning online.
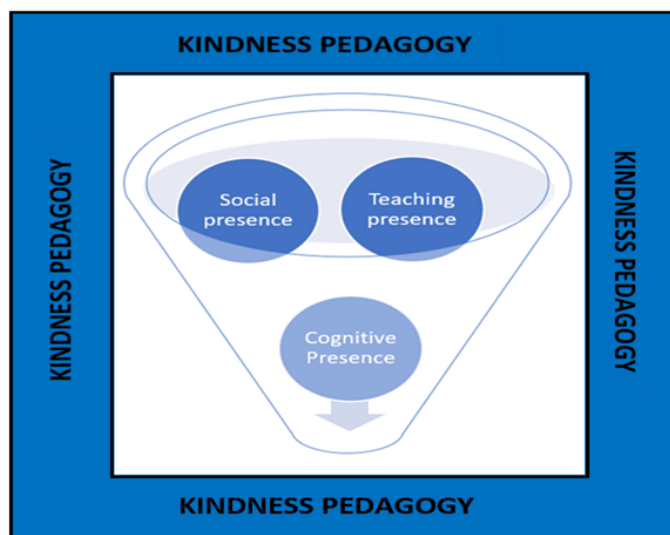

Figure 2. Academic Community of Inquiry reflecting the infusion of the pedagogy of kindness.

While research evidence is yet to be generated to support these claims, the strength of the narrative across the community warranted the propositions to be posted for a broader audience and as a catalyst for further professional conversations as well as future investigative research. However, in the world of higher education, this is a good news story and should be celebrated as such. Amidst a context of trauma, change, and uncertainty like never before, we witness here an organisation, a community of academics and individual teachers adopting the power of kindness to address the unique challenges that accompanied the pandemic in higher education. They did so in order to be present for each other and their students, to remain connected throughout the transitions pedagogically, socially, and cognitively and to generate resolutions "on the run" despite personal and professional exhaustion, isolation and demoralisation.

The paper has shared the case of one higher education provider and an analysis of how a sample of their teaching staff responded to the challenges of the pandemic and the teaching of international students in the period 2020-2022. The interplay and importance of two key concepts, kindness, and presence, in managing the challenges of the pandemic and, at the same time sustaining quality teaching and enhancing the well-being of staff and students, has

been analysed. The proposition that *pedagogical kindness was central to new ways of working in higher education as it experienced a rapid transition to online mediums* has been presented. Such a proposition offers deeper insights into how one group of academics built an inquiry-based professional learning community that focused on the accelerated reinvention of pedagogy in ways that were collaborative, critical and kind. Further with concerns about student engagement as a priority, the lens of Garrison's inquiry-based framework has been useful to reflect on how academics maintained quality intellectual engagement and group cohesion through the place of presence which was imbued with kindness over the two-year period. Further research will be generated as higher education continues to undergo change and uncertainly and the place of kindness and presence will be more deeply investigated particularly in relation to pedagogy, academic identity and the impact on the viability of sustaining a professional learning community in tough times.

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'Heartware' for the Compassionate Teacher: Humanizing the academy through mindsight, attentive love, and storytelling

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Article Info

Abstract

To counter the implications of fast academia, recent discourse has conceptualized the slow movement as a catalyst for humanizing the academy. Concurrently, there have been increased advocacy for pedagogical kindness within educational settings. This paper focuses on the human(e) elements of learning and teaching, such as empathy, kindness, and compassion. Whilst emphasis in educational discourse have frequently been placed on the hardware and software of teaching and learning practice, the focus on the virtues of '*heartware*' and compassion have been limited. Specifically, there has been no study in which the thematic dimensions of: (1) mindsight and mindfulness, (2) attentive love and pedagogical kindness, and (3) storytelling in education is amalgamated to support learning. Within this context, the compassionate teacher aims to not only inspire learning journeys that are positive, engaging and fulfilling, but to also foster learning environments that are more equitable, supportive, and conducive for learners of all capabilities. This paper is conceptual in nature and proposes an approach to humanize the academy through the coaction of mindsight, attentive love, and the teacher storyteller. A conceptual framework illustrating the human(e) dimensions of '*heartware*' for the compassionate teacher is also proposed.

Introduction

Economy, industry, and society seem to be moving at an increasingly fast pace within our modern frantic world. Likewise, our education sector has not been spared from the relentless pursuit of productivity, competitiveness, and accelerated expectations. In the face of an increasingly neoliberal, performance-driven environment of academia, it can be a challenge to preserve empathy, kindness and compassion in learning and teaching. Consequently, Berg and Seeber (2016) and O'Neill (2014) propose the adaptation of the slow movement in academia, as a catalyst for humanizing the academy and supporting the well-being of academics, students, and society. The authors challenge the prevalent culture of speed, standardization, and corporatization of higher education. In this regard, humanizing discourse within the educational sphere is generally grounded on the notions of: (1) the value of dignity and critical consciousness towards each other's perspectives, values, growth and actions; (2) advocacy for kindness, humility, empathy, and love as revisionist ideals for humanizing interactions, engagement, and our way of life; and (3) a shift away from the instrumental, neoliberal tenets of education engagement and activities, to more humanistic, dialectical activities and intrinsic values (del Carmen Salazar, 2013; Freeman et al., 2020; Laverty, 2015; Museus, 2020; Shields & Reid-Patton, 2009; Zinn & Rodgers, 2012). Therefore, these ideals of returning to the human(e) elements of learning and teaching advocate empathy, compassion, and humanistic standards as pathways to supporting goal achievement and developmental potential.

The advocacy to humanize the lexicon in academia is not a recent phenomenon. Building on the Freirean philosophy of humanism in education, del Carmen Salazar (2013) suggests that by adopting humanization tenets in pedagogical practices and principles, educators can promote a more humanistic world for learners. Within this context, the author posits that by humanizing education, we can help students gain meaningful academic knowledge, evolve their relationship with others, and promote their overall well-being. Similarly, Freeman et al. (2020) posit that humanity is non-negotiable and there is a need to create humanizing spaces for learning and teaching. Notwithstanding the value and significance of embracing humanism in education, there has been limited emphasis on these human(e) dimensions in extant educational discourse. Whilst emphasis have been placed on the hardware and software of teaching and learning practice, the focus on the virtues of its '*heartware*' have been less pronounced. Within the context of this study, the *hardware* in learning and teaching practice relates to educational tools and resources (e.g., teaching and learning technologies and platforms [EdTech tools], learning management systems, learning aids and resources, etc.), while its *software* relates to the pedagogical and instructional design elements (e.g., teaching approaches and best practices, curriculum development, instructional design, content, and assessment, etc.). Conversely, the '*heartware*' of learning and teaching is grounded on the axiological tenets of humanization in education that support the emotional, socio-psychological and well-being of learners (Antoniuk et al., 2021; Hackman & Reindl, 2022; Ignatovitch, 2016; Young, 2020). I acknowledge that in order for learning and teaching to be successful, all three elements (hardware, software and 'heartware') must be present. However, for the purpose of this study, the paper focuses on the 'heartware' dimension of the compassionate teacher. As emphasized in extant discourse adopting humanization and axiological postures in education, humanistic developments and orientations within the education process should be rooted in individual values, sensibilities, and reflections about the social and objective world (Antoniuk et al., 2021; Reza-López et al., 2014; Ignatovitch, 2016). Within this context, the compassionate teacher aims to not only inspire learning journeys that are engaging, positive and fulfilling, but to also foster learning environments that are more equitable, supportive, and conducive for learners of all capabilities and backgrounds.

Preserving compassion, empathy, and kindness in the face of fast academia is challenging. There have been increased criticisms and resistance in recent years towards the consumeristic, marketization of education, academic capitalism, and corporatization and normalization of performativity (Berg & Seeber, 2016; Plust et al., 2021). In an effort to uncover the human(e) elements of learning and teaching, there have been various extant studies on humanizing pedagogies (e.g., del Carman Salazar, 2013; Freeman et al., 2020; Laverty, 2015; Zinn & Rodgers, 2012), diversity and inclusivity in education (e.g., Andresen, 2013; Danowitz & Tuitt, 2011; Hershock, 2014; Hiraldo, 2010), mindfulness and Buddhist philosophies in education (e.g., Ergas, 2019; Hyland, 2015; Neves-Pereira et al., 2018; Singh, 2017; Siegel et al., 2016; Vu & Burton, 2019; Wisadavet, 2003), kindness pedagogy and curriculum (e.g., Clegg & Rowland, 2010; Flook et al., 2015; Magnet et al., 2014; Shields & Reid-Patton, 2009; Stephens, 2021), love and compassion in education (e.g., Gorman, 2015; Green, 2003; Jalongo, 2014; Liston, 2016; Robinson-Morris, 2018; Srinivasan, 2014), and storytelling in education (e.g., Allard & Doecke, 2017; Alterio & McDrury, 2003; Bai & Cohen, 2014; Haigh & Hardy, 2011; Savvidou, 2010; Tanner, 2016; Taylor, 2013). However, there has yet to be an approach in which the thematic dimensions of: (1) mindfulness and mindsight, (2) attentive love and pedagogical kindness, and (3) storytelling in education is amalgamated in a manner to support positive, engaging, and peaceful learning environments. This paper is conceptual in nature and proposes an approach to humanize the academy through the coaction of mindsight, attentive love, and the teacher storyteller. These overarching themes are discussed in the later discussions, clustered within the three research dimensions of humanization in education. A conceptual framework illustrating these dimensions of '*heartware*' for the compassionate teacher is also proposed.

Literature and thematic dimensions

Mindfulness and mindsight in learning and teaching

The first thematic dimension proposed in constructing the '*heartware*' of the compassionate teacher is mindfulness. The art, science, and practice of mindfulness has had a long history in humanity and is not limited to the sphere of education discourse. In fact, in recent years, mindfulness and mindfulness-based interventions across a myriad of

applications and industries have increased exponentially (Hyland, 2015). Mindfulness has been described as "a way of being" (Srinivasan, 2014, p. 15); a development of our inner nature (Singh, 2017) through being fully present and observing our "physical, emotional, and mental experiences with deliberate, open, and curious attention" (Smalley & Winston, 2010, p.11). Broadly, mindfulness practice depicts the attainment of an intentionally created state of mind (Siegel et al., 2016). In exploring mindfulness practice in education settings, Ergas (2019), proposes the potential for mindfulness practice within three educational orientations: (1) socialization (i.e., serving society and development of future generations), (2) acculturation (i.e., serving culture and domains of human expressions), and (3) individuation (i.e., serving the individual and conditions for self-discovery/ actualization). Concurrently, mindfulness practice has been posited to enhance awareness, sustain attention, and regulate emotion, which in turn cultivates the implicit and explicit qualities of care and kindness towards oneself and others (Flook et al., 2015). From an individual perspective, Siegel et al. (2016) outline five independent qualities of mindful traits that may contribute to mindfulness: (1) acting with awareness (in what we are doing, when doing it), (2) being non-judgmental (or accepting), (3) being non-reactive (emotional equilibrium), (4) having the capacity to label our inner world (state of mind), and (5) being able to practice self-observation (from a distance). Regardless of its described characteristics, we must be cognizant that the mindfulness construct is not static, passive or merely inward-looking. It is dynamic and underlies a relational focus of the self and relationships to others. Just as meaningful relationships and connections are fundamental to learning and teaching, so too is how we relate to others.

Before attempting to share mindfulness with others and/ or practicing mindfulness in the classroom, we must first pay attention to the present. Fundamentally, this refers to the practice of being in the frame (and acceptance) of the present moment of reality (Hyland, 2015; Siegel, 2009). In this regard, Neves-Pereira et al. (2018) discuss the importance of perception and changing the way we see and perceive the immediate and present reality. Likewise, Vu and Burton (2019) encourage traveling the Buddhist path of "deep transformation of mind and behavior" (p. 2) to reduce and/or eliminate negative toxic mental states. In essence, this introduces the notion of right mindfulness (rather than mindfulness for the sake of mindfulness), based on the conscientious and intellectual understanding of our surroundings to moderate emotions and adjust the self. Espousing Buddhist mindfulness practice, this study similarly considers the notion of right mindfulness as a relational process toward self-transformation, self-contemplation, and critical reflexivity (Ergas, 2019; Vu & Burton, 2019 Wisadavet, 2003). Likewise, Srinivasan (2014) extols the power of right-mindfulness to equip us with the tools to connect authentically, empathetically, and deeply, in order to establish and maintain supportive relationships with learners. Thus, within the context of compassionate teaching, mindful reflectivity and right mindfulness may facilitate transformations of the self and others, based upon the interacting dimensions of moral reflexivity, spiritual practice, and relational acumen.

The above discussions of self-reflectivity, empathy, and the social-relational process highlight the interplay of both internal and interpersonal dimensions within mindfulness practice. In view of this, Siegel (2009) coined the term mindsight to describe the human capacity to blend the "seeing of the mind...of the self and of others" (p. 148). Subsequently, Siegel and colleagues (2009, 2016) posit the value of cultivating mindsight to widen one's circle of compassion. They discuss the concepts of mindful awareness, mindful capacity, and mindsight as a mentalization process to better view the inner lives of ourselves and others. This notion linking mindfulness to concepts of self-knowing have similarly been discussed in other extant research. For example, Plust et al. (2021) suggest that the capability of self-knowing is a key aspect of becoming an authentic educator since it reflects and represents a genuine way of being. In fact, the authors expanded this conceptualization within the notions of reflective self-awareness, suggesting that the ability to gain self-knowledge, and have a better sense of oneself is strongly associated with positive realizations of meaning in teaching, as well as connections to others. In order to ensure coherence of the various viewpoints and senses of selves, Seigel et al. (2016) propose a mindsight map to create the '*MWe*', wherein we "go beyond only '*me*' to connect with '*you*' (and subsequently) become part of a larger '*we*'" (p. 4). This differentiates it from traditional mindfulness discourse in that it expands the tenets of mindfulness beyond the ability to merely look inward, and instead advocates the pursuit of interpersonal mindfulness with others in a larger whole. However, mindfulness pursued without love, empathy and reflection is futile. Relationships are also vital in teaching and learning (Srinivasan, 2014). Hence, this study also considers the value of compassion, empathy, and attentive love in education.

Pedagogical kindness: Attentive love and compassionate teaching

Mindfulness practice commonly taps into pathways, affirmations, and contemplations of love as a central theme. Therefore, the second thematic dimension required to construct the '*heartware*' of the compassionate teacher is attentive love. As Liston (2016) suggests, love is a vital affective (emotional) dimension of learning and teaching practice. Therefore, we must understand its complexity, centrality, and capacity in our classrooms. Within the context of the compassionate teacher, the concept of attentive love blends our "cognitive capacity for attention", and our "human ability to love" (Green, 2003, p. 52) within teaching practice. Similarly, authors have theorized Ruddick's (1989) notion of attentive love in education, which interweaves feminist pedagogies and the ideals of preservation, nurturance, and acceptability as a means to cultivate inclusive, empowering, and compassionate learning environments (Andresen, 2013; Green, 2003; Liston, 2016; Shields & Reid-Patton, 2009). In this regard, Srinivasan (2014) argues that loving kindness, or leading with love, can humanize and harmonize education. Similarly, Robinson-Morris (2018) highlights that the practice of loving-kindness necessitates the intent, capacity, and ethics to demonstrate care, respect, affection, trust, commitment, and openness to others. In order to humanize the academy, the notion of care has increasingly been

introduced in education discourse as a means to enhance students' well-being through trust, respect, compassion, relations of reciprocity, attentive listening, and mentorship (del Carmen Salazar, 2013). Expanding on the above conceptions, Gorman (2015) proposes a pedagogy of human love for transformative learning, wherein the dimensions of human care, ethics and spirituality are unveiled as the panacea for addressing prevailing educational dysfunction and building a more caring, humanistic world. Within this frame of reference, there have been increased calls for educators to focus on that which makes us human, since humanity is considered non-negotiable in teaching and learning (Freeman et al., 2020; Zinn & Rodgers, 2012). As emotional and social beings, we are inadvertently swayed by the interpersonal aspects of our lives. Therefore, there is value in nurturing a kinder world, where we lead with love.

Enacting kindness in our pedagogical and teaching practice is intertwined with extant discourse on love in education. In advocating loving kindness in the classroom, Srinivasan (2014) suggests that before teaching content, teaching is driven by love. The author highlights that in order to create a classroom conducive to learning, we must first cultivate our own "inner sense of boundless love", so that we can welcome our students into a classroom filled with warmth and peace (p. 19). However, just as the tapestry of love is complex and multidimensional, so too is kindness in pedagogical contexts. Notwithstanding the divergent and controversial viewpoints regarding the conceptualization of kindness in education, the discourse relating to pedagogical kindness and kindness curriculum has significantly expanded within humanistic models of pedagogy (Clegg & Rowland, 2010; Gorman, 2015; Liston, 2016; Magnet et al., 2014; Museus, 2020). Shields and Reid-Patton (2009) posit that kindness is a cornerstone for teaching and learning, and is the basis for understanding care, compassion, and respect in curriculum. Concurrently, Stephens (2021) proposes a pedagogy of kindness, wherein compassion, belief and trust become the foundations to empower and transform teacher-student relationships. Compassionate teachers who are oriented toward a humanizing pedagogy develop trusting, respectful, and caring relationships with their students and peers (Antoniuk et al., 2021; del Carmen Salazar, 2013). Therefore, to be compassionate educators, we must constantly engage in humanizing, educative practices that facilitate positive and safe spaces for learning and teaching; and wherein the voice of the individual is validated. At the core of educational discourse relating to humanizing pedagogies, the focus on the voice, stories, and legacies of the individual and humanity is vital (Zinn & Rodger, 2012). Accordingly, sharing of stories and experiences – our own and those of others we hold on to, allows us to affectively learn, grow and connect with others.

Storytelling in education: Open our hearts to open minds

The third thematic dimension required to construct the '*heartware*' of the compassionate teacher is the telling and interpreting of stories. Storytelling is an inherent human condition (Haigh & Hardy, 2010; Shank, 2006). As Zinn and Rodgers (2012) suggest, humankind was not created in silence. The gathering, telling and interpretation of stories is powerful and humanizing, since collectively shared thematic narratives enable shared experiences, sense-making, and praxis. Within this context, the telling, sharing, and retelling of stories encourages a better awareness of the self and others, and provides insights for transformation where knowledge is constructed and reconstructed (Taylor, 2013). Therefore, stories are valuable because it directly gives meaning to experiences; and experiences are important in education since humans understand and make sense of their reality and perspectives through such experiences (Tanner, 2016; Haigh & Hardy, 2010). Concurrently, Savvidou (2010) highlights the capacity for storytelling to facilitate dialogue, personal development and empower individual expressions. This notion of stories and their power as a vehicle for voice and encouraging dialogue, has been widely discussed in extant educational discourse relating to humanizing pedagogies. For example, Srinivasan (2014) stresses the importance of actively engaging learners in dialogue to genuinely understand them. Similarly, O'Neill (2014) suggests the need for teachers to reconnect through dialogue and spaciousness, where we once again recenter our classrooms as safe and positive spaces for authentic dialogical exchange, stimulating imagination, creative exploration, and human flourishing. Within this context, dialogue is considered "essential to a praxis that is both humanizing and full of love" (Freeman et al., 2020, p. 97). As Alterio and McDrury (2003) suggest, teachers and learners may learn from (and share) experiences throughout their lives, and such experiences shared through stories can have the potential to facilitate learning in creative, enjoyable, and meaningful ways. Consequently, our own values, experiences, and identities as a previous student, teacher and human-being are involved in knowledge creation, wherein our inherent emotionality and subjectivity of personal experiences and narratives provide richness, context, and authenticity to the learning.

The concept of the authentic self has been debated and discussed from a myriad of social-psychological perspectives. To be an authentic teacher, we have to live what we teach (Abdelmotagally, 2015). Discussing this within the context of mindfulness and authentic presence, Srinivasan (2014) emphasizes the need for teachers to "teach who we are" and convey "our way of being" to our students (p. 43). Accordingly, storytelling (of our own stories and experiences) helps us to provide encouragement and direction in a manner that is authentic, relational and inspires. Within the higher education context, Butler-Henderson and Crawford (2020) posit that authentic leadership behaviors demonstrated by teachers can motivate and influence positive learning outcomes through sincere knowledge-sharing, trust and engagement. In espousing teacher authenticity within the context of contemporary education environments, Plust et al. (2021) posit that the authentic teacher is someone who encapsulates four key characteristics: (1) Congruence (i.e., being genuinely oneself, self-knowing, defined self-identity, and responsibility for one's actions); (2) Caring (i.e., care, passion and interest for the subject, students and oneself); (3) Openness to encounters (i.e., authentic relationships and meaningful dialogic interactions); and (4) Being critically conscious (i.e., reflective self-awareness and being a critically reflexive practitioner). Within the context of storytelling and the use of narratives to facilitate learning, the legitimation of stories in learning and teaching presents rich narratives

from which authentic experiences are recognized and understood within the educational process (Tanner, 2016). In view of this, authenticity in teaching and the effective use of storytelling can help to describe salient characteristics of the teacher storyteller.

The teacher storyteller seeks to harness the power of stories as a transformative pedagogic tool. Just as storytellers aim to draw in and engage listeners, the teacher storyteller interweaves storytelling as a dynamic, reflective learning tool in their classroom. Within the context of storytelling in education, Haigh and Hardy (2010) discuss the benefits of stories as valuable teaching tools for organizing learning, developing core skills, and encouraging group identification and connection with peers. Concurrently, Bai and Cohen (2014) highlight the value and contribution of storytelling towards individual learning, enlightenment, and transformations. Through immersing and engaging with an imaginative story-world, we may be prompted to consider different ways of seeing and being in the world. As Savvidou (2010) suggests, storytelling is inherently dialogic. Thus, whenever a story is told it provokes a response. Therefore, the use of storytelling in educational settings can also support critical reflective learning (Alterio & McDrury, 2003; Savvidou, 2010). Likewise, Taylor (2013) observes the impact of life-stories on thoughts, beliefs, and actions, particularly when engaged in critical reflection and dialogue. Within the context of learning and teaching outcomes, storytelling helps us to organize our thoughts, emotions and actions in a complex, unordered world (Shank, 2006). Storytelling thus arises from the interaction between people and their circumstances, as they attempt to understand their experiences and make sense of their actions. Within this context, narratives play a central function in helping learners to make meaning, interpret and organize experiences (Allard & Doecke, 2017). Stories therefore help to create meaningful, authentic learning spaces. Correspondingly, Plust et al. (2021) advocate the significance of an authentic teacher's ability to exemplify the genuine care, passion, interest, and personal connection with the subjects they are teaching, their students and their own personal experiences. In this regard, del Carmen Salazar (2013) suggests that educators who are able to authentically connect with their students on an emotional level and provide reciprocal opportunities to share their lives, challenges and affirmations can help to fully develop their human potential (i.e., beyond just academic development and technical training). Essentially, in order to open minds, we must first open hearts. Stories help us to do so by constructively linking emotions, meaning and sense-making with understanding, knowledge, and reflection.

Discussion and conclusion

"Love is that condition in the human spirit so profound that it allows me to survive, and better than that, to thrive with passion, compassion, and style" - Maya Angelou

The above quote by Maya Angelou (Douglas, 2016) aptly highlights the theme of this paper and its aim to put forth an approach to humanize the academy in the face of an ever-increasing fast academia. Consequently, it focuses on the human(e) elements of learning and teaching, such as love, empathy, kindness, and compassion. Afterall, we are not just teachers and students. We are human beings, bound to other human beings through the bonds of association and humanity. As del Carman Salazar (2013) shares, "humanization is the ontological vocation of human beings" (p.37) and it is our process of becoming. It drives the way we engage, experience, and participate in and with the world, and fully realize who we are as humanity, individually and collectively. Despite increased recent calls to humanize the academy, predominant extant educational discourse has focused on the hardware and software of teaching and learning practice. In contrast, this study focuses on the 'heartware' dimensions characterizing the compassionate teacher. Based on the literature reviewed, I suggest the coaction of three key thematic dimensions to humanize the academy: (1) mindsight and mindfulness, (2) attentive love and pedagogical kindness, and (3) storytelling and the teacher storyteller. The proposed conceptual framework for the compassionate teacher (Figure 1) illustrates three interacting thematic dimensions which are amalgamated to support positive, engaging, and productive learning environments. These three dimensions are sequentially organized based on the processes of (1) thinking it, (2) telling/sharing it, and (3) showing/feeling it.
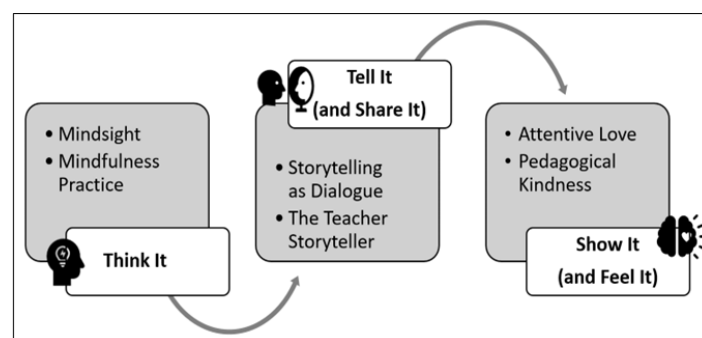

Figure 1: 'Heartware' for the compassionate teacher: A conceptual framework.

The first thematic dimension in the framework (*Think It*) relates to the cognitive and intellectual notions of mindfulness and mindsight. As discussed, mindfulness practice entails the attainment of an intentionally created state of mind and present-moment awareness. In essence, to be a mindful compassionate teacher, we must endeavor to manage our attention, acceptance, and perceptions about our present moments of reality in the classroom (Hyland, 2015; Neves-Pereira et al., 2018). Within the context of mindfulness practice in educational settings, Ergas (2019) posits that the ethos of mindfulness can potentially be channeled to serve individuals (individuation), societies (socialization), and cultures (acculturation). Expanding upon conventional mindfulness discourse, Seigel et al. (2016) extended the tenets of mindfulness to include the pursuit of interpersonal mindfulness with others in a larger whole. Consequently, the authors posit that cultivating right-mindfulness and mindsight within this context can help to break down self-limiting barriers, achieve emotional equilibrium and improve our capacity to better perceive ourselves and others. Furthermore, Flook et al.'s (2015) study on the application of a mindfulness-based kindness curriculum in early

childhood education observes increased learning indicators and outcomes for nurturing self-regulatory abilities, socio-emotional competence, and prosocial skills development. Accordingly, Seigel (2009) asserts that to create a more compassionate, kinder world, we have to work together to build a more humanistic world, imbued with better attuned relationships and reflective practices. This notion of uniting love, kindness and mindfulness in teaching practice and the classroom can help the compassionate teacher to cultivate mindful energy and awareness in every interaction, so that our classrooms can be transformed into spaces and learning communities of peace, compassion, and inclusivity.

The second thematic dimension in the framework (*Tell It/Share It*) articulates the value of storytelling in compassionate teaching. Relatedly, it also emphasizes dialogic interactions, narratives and stories as being central to supporting trust, respect, and authentic relationships. The compassionate teacher humanizes the academy by creating a safe and positive learning environment in which students are able to openly debate ideas, share experiences and engage in the meaning making process. In this manner, compassionate teachers are able to build genuine relationships, engage in meaningful dialogues and strengthen their bonds with their students (and peers) within a collegial, supportive, non-judgmental space (Plust et al., 2021). Concurrently, interactions and social learning cultivated from storytelling have also been discussed as tools for collaborative learning, collegiality and collective deliberations through shared narratives and dialogue (Allard & Doecke, 2017; Savvidou, 2010; Shank, 2006; Tanner, 2016). As Haigh and Hardy (2010) emphasizes, storytelling is inherent to the human experience. It is also a fundamental means to transmit knowledge, skills and educate. Storytelling constitutes a practical understanding, an innate impulse to mediate representations of individual experiences and actions. In this sense, the teacher storyteller utilizes stories and shared narratives to create authentic connections and encourage meaningful dialogue. Subsequently, reflective learning and mindful reflexivity enables a transformative process to strengthen the foci and/or sense of self, relationships with others and engagement with the learning processes.

Meaningful dialogue cannot exist in the absence of love, compassion, and empathy. As Freeman et al. (2020) emphasizes, critical inquiry and reflection is inherently dialogic, and without the profoundness and infusion of love, there can be no proper dialogue. Therefore, the final (and possibly the most critical) element characterizing the compassionate teacher is the act of love. This thematic dimension (*Show It/Feel It*) emphasizes the significance of demonstrating attentive love, kindness, and its importance within compassionate teaching. Teaching is a vocation which requires us to come forth with genuine care and an ethic of love to share knowledge, attentive understanding, and loving engagements (Liston, 2016; Robinson-Morris, 2018). Espousing the tenets of kindness pedagogy, this thematic dimension supports the development of authentic relationships (showing and feeling) in order to build trust, respect, and dignity. As highlighted by Plust et al. (2021), authentic compassionate teachers in particular are able to genuinely show care and concern for their students, driven by a desire to encourage and value their students' flourishing.

Through adopting an axiological approach in teaching and learning, the student becomes the main focal point and of the highest value (Antoniuk et al., 2021). In order to genuinely care for our students, we must first be interested in, and care about what is important to them. To do this, we must know our students, and they must know us. If we are able to achieve this, we may be able to then have this genuine care and concern reciprocated, wherein students would perceive the teachers' caring attitude as being genuine. As Srinivasan (2014) observes, a learning environment devoid of authentic, heartful interaction, regardless of its instructional design and soundness, could never create a connected, innovative, and loving, compassionate teaching space. Therefore, the compassionate teacher must actively practice intentional present-moment awareness, genuine listening, and curiosity without judgement.

This conceptual paper investigated the key dimensions required to humanize the academy. Specifically, it explores the key co-acting human(e) elements of mindsight, attentive love, and the teacher storyteller. These three dimensions were thematically integrated in a proposed conceptual framework to illustrate the human(e) '*heartware*' elements of the compassionate teacher (Figure 1). The aim was not merely to just review and discuss the broad socio-psychological and emotional elements of humanistic engagement and learning. Rather, it hopes to provide a practical, usable framework for applying the key principles and dimensions for becoming a compassionate teacher. Whilst there is no empirical data collected at this stage of the study, the results of the literature review and preliminary analysis of my own teaching reflections and feedback offers support for further exploration, and opportunity to expand and assess the applicability of this framework empirically. I acknowledge that the scope of literature and preliminary research covered in this paper is not a definitive collection or generalization of all works related to humanizing the academy and compassionate teaching. Nor does it aim to draw elaborate conclusions from these observations. Nonetheless, I believe that it presents valuable insights into the current issues, challenges, and discourse within the topic area. In light of the above discussions, it appears apparent that future research into the realms of compassionate teaching and pedagogical kindness is worthwhile. In the next stage of research, the study will apply the framework to empirical data collected from related communities of practice, as well as relevant student cohorts. This data can provide in-depth insights on compassionate teaching from both the learning and teaching perspectives, as well as provide feedback for further applications in humanizing the academy and our classrooms. Additionally, there are also opportunities to further develop and adapt this conceptual framework to other forms of humanization in education.

To be a compassionate, inclusive, and mindful educator, it is important for us to be authentic in the positioning of our teaching values and interactions. This is strengthened when it is expressly ingrained into to our own positionality as an educator, researcher, and fellow human being. As Srinivasan (2014) shares, the best way we can encourage and share mindfulness with our students is by ensuring our own authentic presence. In other words, we *must* be what we teach. Paradoxically, the compassionate teacher is perceived

to be a contradiction to prevailing dominant institutional metrices and expectations of professionalism, performance, and efficiency in academia (O'Neill, 2014; Magnet et al. 2014; Plust et al., 2021). Despite the challenges and controversies, we cannot ignore the need for building a more human(e) centric educational environment. Through developing mindsight, attentive love, and storytelling, I hope that we, as compassionate teachers, can achieve better mindful awareness, reflect upon our values as educators, and practice care ethics for our students and peers. I am cognizant that my journey and the determination of likeminded educators to envision ways in which we can better humanize academia would not be one that is easily travelled. The prevalent neoliberal tenets and logic that envelops us in the current educational environment will not be easily discarded. As Freeman et al. (2020, p.86) concedes, to successfully engage in humanizing practices in learning and teaching requires us to "grapple with notions of impossibility". Nonetheless, I hope that as more educators and education administrators embrace the '*heartware*' of learning and teaching, we can in time, create educational environments that value learning and teaching outcomes from other perspectives beyond rigid standardized assessments, metrices and judgements. I would like to end here with Maya Angelou's invitation and inspiration for us to "*be a rainbow in someone's cloud*" (Douglas, 2016). I hope that this paper and its simple approach showcasing the 'heartware' of learning and teaching will help to inspire others to journey with me to improve our compassionate teaching practice. We should take pride, respect, and responsibility for the work we do as teachers, mentors, and human beings; and to create a kinder, more compassionate educational environment for our students and the next generation of humanity. To be a rainbow in their cloud.

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Successful collaboration in online learning through skills and community building: a women in leadership MBA subject case study

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Abstract

Harasim's Collaborativism and Garrison's Community of Inquiry are underpinned by the notion that successful online peer-peer collaboration leads to deep learning and that online learners require scaffolded facilitator support to successfully collaborate. This support includes two actions: firstly, transitioning students from the roles of face-to-face learners to online learners so they know what to do and how to do it in a new learning environment and secondly, building a strong online community that sets the positive cognitive and behavioural building blocks that underpin successful collaboration. Collaborativism sees learners progressing through distinct discourse-focussed collaboration stages in order to achieve new, deep knowledge acquisition and Community of Inquiry proposes the convergence of Social Presence, Teaching Presence, and Cognitive Presence to achieve the same. Linking theory to practice, Salmon's 5-Stage Model for Online Learning complements these frameworks by providing facilitators with a practical online learning model, with embedded learning activities, providing the tools to create a strong online learner community. These three theorists bring Social Constructivism to the online learning space.

MBA661 Gendered Workplace Environments v1, is a higher education subject, placed at an Australian Qualifications Framework level 9 (AQF-9), and at a Master of Business Administration level 600 (MBA-600). It sits within a Women in Leadership specialisation stream. It is used here in an illustrative case study on how to successfully apply these theories and aligned model to achieve online Social Constructivism. The educational philosophy used in its syllabus design and facilitation was to put community building activities before content teaching so that technology and collaboration skills were developed in a supportive, scaffolded manner, better equipping students to then engage in effective, collaborative content learning. This case study provides presumptive evidence that placing community building activities before content teaching within weekly lesson plans results in strong student collaboration skills development that may contribute to higher student satisfaction levels with collaborative learning.

Introduction

Social-constructivist learning in face-to-face learning environments is widely considered best-practice for learning design and teaching. Synchronous online learning environments should replicate this best-practice to ensure the same student satisfaction exists under both models. Social-constructivist learning involves facilitating peer-peer dialogue and collaboration (Harasim, 2017), and the building of a Community of Inquiry (Swan, 2019). The online version of this involves scaffolding students through the role adjustment from face-to-face learner to online learner, in order for social-constructivism to be maintained (Garrison et al., 2019). However, the challenges of technology and social distance in synchronous online learning environments have caused low student satisfaction with discourse-based, collaborative experiences, with students reporting that breakout rooms are like awkward first dates, forcing them to make small talk with complete strangers (Radhakrishnan, 2020; Rozelman & Steigerwald, 2021; Whear, 2020). These negative collaborative experiences may indicate a failure to implement social-constructivism well in the synchronous, online classroom. The case study reported in this article, asks whether we can improve student satisfaction in synchronous, online collaborative learning experiences by focussing on building a competent online community before attempting to teach lesson content. The frameworks of Linda Harasim's (2017) Collaborativism, Garrison's (2019) Community of Inquiry, and Salmon's (2021) 5-Stage Model for Online Learning can all help to address this question.

Whilst these frameworks were originally designed to counter the challenges of asynchronous collaboration, considering the common challenges of technology and distanced socialisation, applying these models to the synchronous online learning experience is useful. Both environments contain the risk of students not collaborating well under a social-constructivist design rooted in the face-to-face education context, and therefore students being dissatisfied with their learning experience. Accordingly, this analysis reports on a case study subject, placed at an Australian Qualifications Framework level 9, (AQF-9), and Master of Business Administration level 600 (MBA-600). It explores whether the implementation of these frameworks into the design and facilitation of the subject could create a strong online community – one that improves student collaboration satisfaction in synchronous, online learning environments.

To discuss this question, a brief summary of the frameworks outlined above is provided, followed by an illustrative discussion on how they were used in a subject's design. This case study's design and facilitation is discussed from the syllabus designer/classroom facilitator's (designer/facilitator) personal experience. This argument presented here will assert that by building a strong, synchronous, online learning community before focussing on teaching the subject content led to an observable improvement in collaborative efficacy of the learner group, and consequently, displayed observable higher student satisfaction with synchronous, online collaborative learning experiences.

Theoretical framework: solving the challenge of ensuring online social constructivism

The current challenge observed from the standpoint of the designer/facilitator of this reflective case study is maintaining social constructivism in the synchronous, online classroom. Verbal reports from facilitators, or their managers on their behalf, most commonly contain complaints of limited successful student 'group work' in synchronous online lessons. Two results have been observed in these scenarios: either facilitators strive to overcome these challenges by seeking pedagogical advice, or they simplify their pedagogies by reducing a once-socially-constructivist, workshop learning model they used in the on-campus classroom, to an online lecture format, with little to no student collaboration. The latter is an understandable action, considering the pressures educators have experienced over the past few years through the pandemic and the unexpected transition to fully online teaching. However, to ensure social-constructivist learning still occurs in the synchronous, online classroom, we can look to Harasim (2017) , Garrison (2019), and Salmon (2021) for guidance.

Harasim's Collaborativism (2017) is an online learning theory that places the importance of peer-peer discourse over didactic learning pedagogies, seeing learners progress through distinct collaboration stages in order to achieve new, deep knowledge acquisition as a dialogue-based learner group. Harasim (2018) reports that her dissatisfaction with the original asynchronous-forum-based online learning models that had little peer-peer discourse, led her to apply Vygotsky's Social Constructivism, with its focus on discourse within knowledge construction, to a framework that provides collaborative discourse experiences between students within an asynchronous environment. From this perspective, there are three framework phases that students must be scaffolded through by their facilitator: the idea generation phase, the idea organising phase, and the intellectual convergence phase, whereby upon achievement of this final phase, the student has the ability to apply their new knowledge schema to other contexts (Harasim, 2017). These phases are facilitated by specifically-designed learning activities, ranging from posing a problem, allowing for group brainstorming and discussion, through to debating and questioning each other to narrow down ideas, until a shared construction of new knowledge has occurred (Harasim, 2017). In short, Collaborativism is all about creating a community through peer-peer discourse to bring social constructivism to the asynchronous online learning experience.

Garrison's Community of Inquiry is an online learning framework that also builds a community of active learners within an asynchronous online learning environment, this time by facilitating the convergence of Cognitive Presence, Teaching Presence, and Social Presence (Garrison et al., 2019). Similarities can be found between this theory and Harasim's in that the facilitator is crucial, ensuring the alignment of these three spheres. For example, Swan (2019) explains how Cognitive Presence is built upon the work of John Dewey in that learning experiences must include socially constructed, reflective inquiry. It uses the Practical Inquiry model, whereby learners are facilitated through four

phases of learning activity: a triggering event, exploration, integration, and resolution (Garrison et al., 2019).

Social presence, on the other hand, was developed out of what Garrison and his co-designers saw as an over-reliance on the notion of 'belonging' within this field of study, and consequently, its lack of integration with cognitive learning processes (Garrison et al., 2019). In other words, the feeling of belonging to a community was not enough to ensure positive learning experiences. Social Presence, therefore, consisted of the facilitation of not only identification with the learning community and building important relationships with two or more members, but of having purpose when engaging in community discourse (Garrison et al., 2019).

Consequently, Teaching Presence has been found to causally influence both the Cognitive and Social Presences and is perceived by students to increase their satisfaction, increase their learning, and create a social community (Anderson et al., 2001; Garrison et al., 2019). Further to the importance of the educator's role, is the need to tackle student role-identify formation when they switch from being face-to-face learners, to online or blended learners. Garrison's (2019) research demonstrates: students see a difference between their two roles of on-campus learner and online learner; that an adjustment to this new online role is needed to be a successful online learner; and that the educator is the key to facilitating them through it by ensuring harmony of these three presences. Garrison says (2019) that the students' role within a Community of Inquiry is to learn the new social expectations for behaviour in an online social context, in order to learn to construct meaning together as a group through shared discourse. In other words, a community of inquiry requires all members to be actively involved.

The 5-Stage Model for Online Learning conceptualised by Gilly Salmon (2021) is also an online learning framework and focusses on scaffolding asynchronous learners through five distinct stages from adjusting to online learning to thriving within it. Beginning with Access and Motivation, Socialisation, and Information Exchange, to Knowledge Construction and Development, the five stages ensure students learn how to learn within an online community (Salmon et al., 2010; Salmon, 2021). A key element of the framework is the design and facilitation of online activities, called 'e-tivities', which promote advancement through the stages and place an emphasis on the importance of the facilitator in building an online community of socially and technically adept learners (Salmon, 2021). For example, new learners could be provided with a carefully constructed e-tivity, asking them to simply post a welcome message on a shared forum. This simple act fits within the first 'access and motivation' stage in that it is testing students' abilities to use technology to post a message, and their willingness to do so.

This framework complements Collaborativism in that technology and peer-peer discourse are important partners that need learning design attention, and complements Community of Inquiry, in that once the community is built, effective inquiry can occur. The distinction between this and the previous two frameworks is that Salmon makes a clear case for facilitating incredibly basic and easy to use e-tivities that support the building of a strong community

of capable online learners before content learning begins (Salmon et al., 2010; Salmon, 2021). In other words, build a community before you teach the content. And building this community requires learning activities, as noted by Conrad (2002) when she states that "participation in online learning activities exists before community, that it contributes to community, that it is the vehicle for maintaining community, and that it eventually becomes the measure of the health of community" (para. 70).

Reflections on a case study built upon collaborative, inquiry-based learning experiences

MBA661 Gendered Workplace Environments v1 had these frameworks applied to its instructional design and facilitation. This case study reflection is taken from a 12-week trimester in July 2021, where the student cohort was made up of 36 students of varying genders, cultural backgrounds, and ages. Due to the high number of international students within this Australian-based college, the cohort had a wide range of English language abilities, workshop-style active learning experience, and prior knowledge of the subject's cognate area. The weekly online classes were three hours in length, providing synchronous learning experiences, coupled with a multi-purpose online workbook and LMS-stored learning resources for asynchronous learning opportunities.

The designer/facilitator's goal was to maintain social-constructivist, collaborative learning in a synchronous online environment because engaged, collaborative learners develop deep, meaningful learning experiences (Garrison & Vaughan, 2007). As such, the instructional design implemented two methodologies: the narrative approach and inquiry-based learning that supported deeper learning opportunities. For example, the subject teaches the global history of laws, workplace policies, and practices that have affected women's roles in the paid workforce since the mid-1800s to today, and the trailblazing women who fought for, and made crucial headway towards, women's societal and workplace equality. The students learned the content chronologically from the past to the present, continuously applying those historical contexts to the present day experiences of the modern worker. This by necessity, required complex synthesising of information in order to contextually analyse and understand present workplace culture, laws, and practices and predicting what they would be in the future – essentially answering the questions "how did we get here?" and "where are we headed?". This exemplifies Dewey's call for learning experiences to involve reflective inquiry for them to be meaningful (Swan, 2019) and Blooms Taxonomy's higher order cognitive practices of analysis, synthesis, and evaluation (Nikolić & Dabić, 2016).

The challenge then, was that students had to be taught how to be collaborative and inquiring learners in the synchronous, online classroom. Researching theories and models that could help facilitate successful online collaboration, Harasim's Collaborativism (2017), Garrison's Community of Inquiry (2019), and Salmon's (2021) 5-stage model for online learning were seen to be the most useful. Each of these approaches contributed in their own way to the design of the subject – from the designer/facilitator's

greater understanding of the learning science to the nuts and bolts of in-class facilitation.

Discussion

To discuss each of these frameworks' influences in more detail, the discussion will start from the end – the assessment goal, then the weekly activity design to prepare students to achieve that goal, then finally, the beginning, where students learned how to learn online.

The end – assessment design

One application of Harasim's framework was in the initial confirmation that the design to incorporate a collaborative, problem-based-learning assessment activity in the final week, using inquiry-based learning, was pedagogically sound. This is because these activities facilitated learning through discourse, which Harasim - and her inspiration from Vygotsky's Social Constructivism – declares to be essential to effective learning (Harasim, 2017, 2018). In fact, focussing on the importance of an individual mind working within its social environment is a key tenet of Vygotsky's work (Vasileva & Balyasnikova, 2019) and so deemed to be a good model for this subject design.

In this assessment, students were to engage in free discourse for three hours, taking all their learnings from the chronologically studied history of gendered workplaces to create the content for the 'missing week 12 workshop', one that would address content for an imagined future date. This task itself was to incorporate inquiry-based-learning, jigsaw learning, and collaboration. The discourse within this collaborative experience saw students progress through Harasim's three discourse stages, including brainstorming and ideation, organising that information, and then deciding on a final shared set of knowledge to apply to the final presentation task. Despite finding a lack of rigorous discussion on Collaborativism itself, the designer/facilitator saw enough logic in the framework to warrant applying it broadly to the final collaborative assessment design.

The middle – learning how to cooperate

One application of Garrison's framework was within the implementation of a jigsaw activity each week. This activity would contribute to the building of a community of inquiry through learning within a diverse group of thinkers (Garrison & Vaughan, 2007) and, as studies have shown, build a strong community through the exchange of resources amongst learners (Shackelford & Maxwell, 2012). The jigsaw activity would take up a third of the class time, so designing it to be pedagogically effective was important.

A jigsaw activity is a technique aimed at building a respectful, enjoyable, and effective learning community by engaging in research-based cooperation: every student's role is important to complete the puzzle; the skills of respect, patience and empathy are practised; and a shared objective that fosters accountability is strived for (Jigsaw

Classroom, 2022). The original jigsaw design has three stages - individual learning, group knowledge checking, and then group knowledge sharing (Jigsaw Classroom, 2022). However, for online activity management purposes, the designer/facilitator used a modified two-stage process, replacing the original design's scaffolding within stage two, with scaffolding via weekly repetition of the task.

Stage one consisted of choosing three separate world events from the same era. For example, a law that advanced gender equality in one country, a women's rights protest in another, and the first female college opening in yet another within the same decade. The complete puzzle of knowledge is to acquire a macro sense of the lives of women and their relationship to the workplace at that point in time. If this were taught in a traditional slide deck, text on a page format, the students would experience a lecturer telling them a series of facts. By combining a jigsaw with inquiry-based-learning however, the students were given hyperlinks to three websites and instructed to learn and summarise their part, to then teach to the other two members of their group. Community of Inquiry's Cognitive Presence was useful in considering the importance of shared inquiry within knowledge construction; Social Presence was useful in considering the importance of purpose within a group (hence a 'jigsaw' to complete), and Teaching Presence was crucial to consider regarding the design and facilitation of the activities each week.

The beginning - learning how to learn

There were many applications of Salmon's framework, it being the most practical of the three. However, they all closely relate to Garrison's view that students must learn how to be online learners, as distinct from their roles within a physical classroom where the behavioural norms of discourse are different (Garrison et al., 2019). Since the majority of students had not chosen to be online learners, having been forced into the model due to the COVID-19 pandemic, it was important to pay considered attention to how they were approaching their new roles and the behaviours this would entail. Therefore, with the 5-Stage Model for Online Learning focussing on scaffolding learners through the adjustments to an online learning environment, and having a clear pedagogy to follow in the use of e-tivities (Salmon et al., 2010; Salmon, 2021), three activities were designed to foster access to learning, and socialisation to the online community.

A) Access to learning

E-tivity One was a Microsoft Form titled 'How I study online'. The form (see Appendix 1) was designed to gather data on how capable each student would be as an online learner before the lessons began, focussing on students' access to the live online session and the activities required of them within it. The questions ranged from "I have stable internet", with suggested responses such as 'always', 'sometimes', and 'never', to "I will be studying on…", with suggested answers such as 'a PC/laptop', 'an iPad', or 'a mobile phone'. Another angle to 'access', which touches on 'motivation' as well, was

access to learning due to in-home distractions, with one question asking: 'I predict that I will have challenges fully participating during my live, three-hour class. For example…', followed by a free-text box.

The data collected through this form highlighted which students had poor wifi and limited learning tools, which would hinder their ability to maintain video, audio, and effective shared file collaborative work throughout the three-hour lessons. One student's circumstance was revealed to be a firestorm of complexities: studying in India due to the pandemic, caring for a young child without support, unpredictable wifi strength in the neighbourhood, an old laptop with no camera, and limited English being spoken on a daily basis that affected the student's skills and confidence to communicate. The ability for this student to engage in successful collaborative learning appeared challenging – how would they progress through Collaborativism's idea generation stage with such barriers to effective discourse? Knowing their circumstances was the first step in designing further e-tivities to overcome these challenges.
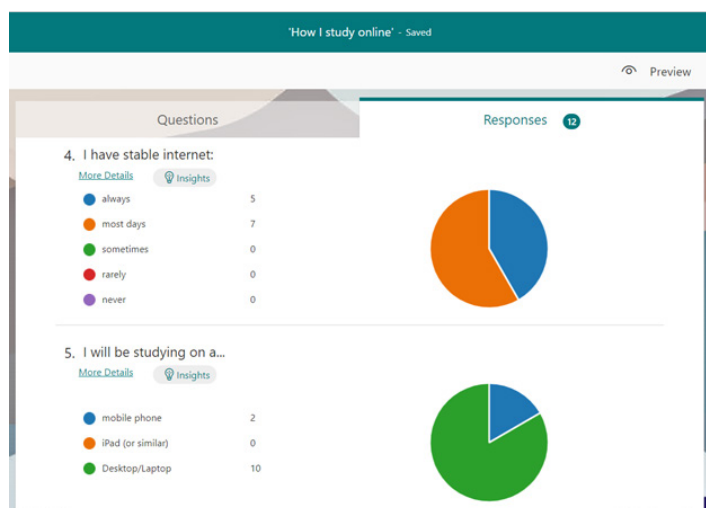

Figure 1: How I study online Microsoft Form. See Appendix 1 for full form.

E-tivity Two was titled 'Welcome colouring in page'. This was a collaborative colouring activity using a shared Google slide, via Zoom, with students using their individual Annotation tools to colour a 'welcome' picture. A deceptively frivolous activity at the beginning of lesson one, it answered a number of key online learning questions: 'who can use the technology of an Annotation tool?', 'who can collaborate together to enhance, rather than ruin, a collective artwork?', 'who has the confidence to speak up when they can't work out how to use the tool vs who will retreat and remain separate from the group?', and 'who has the technical ability to use voice or chat to ask for help in using the tool?'. The first stage of 'access' was addressed here and allowed the designer/facilitator to take notes on who was struggling with technology.

Figure 2: 'Welcome colouring in page' activity.

B) Socialisation

Salmon's first stage of Access was addressed by the colouring activity however, it also addressed her second stage of 'Socialisation'. On the second application of the colouring activity in week three, a remarkable thing occurred, whereby those who had been quieter in weeks one and two, appeared to be more willing to engage in casual verbal discourse while they were pre-occupied with the colouring task. An assumption is that when the group's focus appears to be on a collaborative object and away from a student's face on Zoom, they feel more comfortable speaking to the group (and research does exists in the English as an Additional Language or Dialect (EALD) field regarding task-based learning leading to more peer-peer discussion (Fonseca, 2016), so there may be a connection here worth exploring with task-based learning on Zoom). This second iteration of the e-tivity moved students who had been previously noted as 'struggling' on the designer/facilitator's notes, to the category of 'emerging' as their technological and socialising skills appeared to improve. Other e-tivities of this ilk were designed and facilitated to build further collaboration skills and confidence towards a possible category of 'thriving'.

E-tivity Three focussed on an important skill within socialising – scaffolded communication. It was called 'Meet your Desk Buddy', using the 'Virtual Desk Buddy' pedagogical tool. This activity was created by the designer/facilitator in March 2020 to teach a faculty of green online educators how to maintain pair, peer-peer interaction as naturally occurs at an on-campus classroom desk. The activity was adapted from the Think, Pair, Share pedagogy created in 1981 by Frank Lyman and colleagues (Kaddoura, 2013). The purpose of both the offline and online versions of Think, Pair, Share is to build in inclusive pedagogy of scaffolded peer support when contributing to class discussions and as such, is the antithesis of the classroom 'cold-call' (Kaddoura, 2013). At its core, Think, Pair, Share inserts a step of testing your answer or thoughts with another student privately, before answering the facilitator's question publicly to the class (Kaddoura, 2013).

Allocating time to practise this skill would be crucial preparation for the final collaborative, problem-solving assessment activity, since studies have shown that when learners share personal information with each other, a strong learning community is built (Shackelford & Maxwell, 2012). Below is the e-tivity that was provided to the students on their week one workshop slide (Salmon's e-tivity titled sections in column one have been added here for illustrative purposes only, the students see only column two). It shows

the rationale and instructions to the students to meet and get to know their virtual desk buddy, and then provides the invitation to use the private chat function to share their ideas and contributions with each other throughout the lesson. These scaffolded contributions are facilitated by the educator using the method of Think, Pair, Share.

Table 1: 'Meet your desk buddy' instructions.

Title	Meet your Desk Buddy!
Purpose	When you complete this activity, you will know one classmate a little better. This will allow you to build connections with your peers for more interesting and effective learning experiences .
Task summary	You will use the Zoom chat function to private chat your Desk Buddy, exploring your similarities and differences using text and emojis.
Spark	Remember chatting with a classmate at a physical desk? This is the next best thing!
Individual contribution	Every person is a desk buddy to one other student. Your educator will tell you who your Desk Buddy is. 1. Click on the Zoom Chat icon. 2. 'Everyone' is shown by default. Change this by selecting the arrow and choosing your Desk Buddy's name from the list. 3. Start typing to your Desk Buddy using text or emojis. Suggested questions: where do you live, favourite holiday destination, languages you speak, reason for studying this subject?
Dialogue begins	Respond to your Desk Buddy's questions with your answers and your own questions.
E-moderator interventions	This conversation is between students only but if your Desk Buddy must step away, choose your facilitator to private chat with for a moment.
Schedule and time	You have 10 minutes to chat. Afterwards, your facilitator will ask who found any interesting similarities with their Desk Buddy.
Next	Your Desk Buddy is now your partner for the rest of the lesson. Private chat your Desk Buddy whenever you need to. When your facilitator asks a question to the class, there will be time to test out your answer or your idea on your Desk Buddy first, before sharing with the group.

Results

Although this reflective case study is purely from the designer/facilitator's perspective as the observer of student behaviour and receiver of verbal and written opinions, it presents a persuasive case that successful collaboration was achieved. Four observable results are now discussed:

Result one: Observations of students' moods upon returning from breakout rooms were positive, even when the collaborative task had been described as messy. This mood was observed through facial expressions, body language, voice and chat tone, and thumbs up emoji use.

This indicates success with two design features: firstly, the weekly lessons following the same activity pattern each week, enabling scaffolded skill building opportunities that allow for skill and confidence growth. Secondly, the learning design was explained to the students from the start, so they were on the same page with the design. Dewey's Experiential Learning Theory (Dewey, 1975) was briefly explained, that everything is learned within a social context and that they were practicing the messy but fulfilling aspects of humans interacting together, which would prepare them better for the workplace. They were told that their collaborative skills and experiences would most likely be poor to begin with, but would strengthen as the weeks progressed, through self-reflection and practice. Therefore, for post-task positivity to occur (the goal), pre-task positivity was fostered (it's OK to fail), setting the scene for safe, experiential learning practice.

Result two: Verbal feedback positively progressed. It took a pattern that progressed from week one: 'we didn't work together very well', to around week four: 'we didn't work together that well, but we know where we went wrong' to eventually week twelve: 'we worked together fairly well'.

Not all groups progressed to the same extent as others, and some individual members expressed high levels of expectations from themselves and others, resulting in lower satisfaction than some of their peers. For these students, the designer/facilitator reminded them of the Experiential Learning design and suggested they reflect on one aspect of the collaborative task's 'failure' and to make one improvement next time. This appeared to give those high achievers a positive challenge for them to be empowered by.

Result three: There was an observed progressive reduction in support requests from students within breakout rooms over the trimester. From at least one call to enter a breakout room per group in the first few weeks, to no calls in the second half of the trimester.

This indicates a learned competence in not only using the technology to collaborate through but also a more successful collaboration experience. Again, for those high achievers, if there was a private complaint that a peer wasn't 'pulling their weight', the designer/facilitator empowered them to take the lead in finding a solution. This often involved re-allocating tasks to allow those with poor wifi or those multitasking private commitments (children, work) to be assigned tasks that suited their achievable level of participation, shifting the mentality from 'pulling their weight' to 'doing what they can'.

Result four: Written student reflections spoke of enjoyment, ease, overcoming challenges, and a sense of community. Challenges and dissatisfaction with peers were also mentioned, but with additional insights into what occurred, why, and how they would do things differently next time.

This indicates that the final assessment design and weekly supportive community building and collaborative skills building activities were successful. The reflective essay for the final assessment task specifically asked students to reflect on their individual experience in the final collaborative group project. The assessment outline and rubric included sample questions to answer, guiding students to reveal any negative aspects of their collaborative experience, rather than avoid it, and to follow this with insights using what, why, and how statements. The written experiences indicated growth in skill, confidence, and enjoyment in collaborative learning experiences.

Considerations

One: Further research is needed. It is not clear if all the designed and facilitated activities had a causal effect on perceived student positivity with collaborative learning or whether one was more effective than the other.

Presumptively, the Virtual Desk Buddy e-tivity most likely had a greater impact on building discourse confidence and a sense of community due to it most closely resembling the relaxed peer to peer classroom table connection. The weekly jigsaw inquiry-based-learning activity most likely had the greatest impact in preparing students for their final collaborative assessment, due to its embedded skills building scaffolding. However, further research testing students' opinions is required to confirm or counter these presumptions.

Two: Facilitator skill is crucial to success. Whilst the results give the designer/facilitator validation that these elements to the instructional design worked to some degree, it is worth noting that the facilitation of these activities each week requires significant pedagogical skills in the areas of educational technology, and online group facilitation. It also requires a flexible mindset and a good dose of humour to solve technology and collaboration issues calmly by adapting pedagogies during the lessons when required. Therefore, it might be prudent for many facilitators to choose one element only of the above examples to introduce until confidence and capability has been increased to attempt more.

Three: It should also be noted that not every student met with observed success to the level the designer/facilitator had hoped. This may not be surprising when you consider that a student's sense of social presence is their own to control and that learning designers who try to 'push' the creation of a sense of community, when the student's 'pull' is not quite there, may be in fact creating a type of forced community in which not all students are comfortable with engaging (Conrad, 2002).

Conclusion

This case study reflection from the designer/facilitator's standpoint, discussed the contextual need for exploring Collaborativism, Community of Inquiry, and the 5-Stage Model for Online Learning to help design and facilitate an effective online learning experience. This reflection began with a summary of the above frameworks, followed by a discussion on how these frameworks were applied to the subject's instructional design and in class pedagogies, demonstrating how useful they were in solving the challenge of how to maintain social constructivism in a synchronous online subject. By allocating lesson time to building a community before focussing on subject content, this subject first taught learners how to learn in an online, synchronous learning environment, indicating eventual collaboration success through a strong sense of community.

The measure of this success is the perceived satisfaction in students post-collaborative experiences by the designer/facilitator, and the self-reported satisfaction in student reflections on collaborative experiences. This case study reflection makes no assertion that students acquired deeper learning through their collaborative experiences, rather, this reflection purely focuses on the perceived student satisfaction with their collaborative experiences in an online environment as observed by the designer/facilitator. Further

areas of research could include examining a link between student satisfaction in online, synchronous collaborative experiences and the acquisition of deeper learning.

Finally, the future of synchronous, online learning has been catapulted to the present thanks to the forced global migration to online learning in 2020. Many institutions, by necessity, swapped pedagogically unsound face to face learning lectures for pedagogically unsound online learning lectures. On the other hand, others were better placed to utilise pedagogically sound online learning theories into their already social constructivist delivery models. It is this author's opinion that online learning will only embed more Social Constructivism, and as such, online facilitators should explore the online learning theories in this reflection, and others, to ensure they are skilled and ready for the continuation of social and collaborative online teaching and learning practices.

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Appendix

1. E-tivity one - Microsoft Form titled 'How I study online'.

Questions | Responses **12**

'How I study online' ✂

This survey will show your teacher what challenges you may face as an online student. Your teacher will use this data to prepare for your lessons so that everyone is included and productive.

1. Please enter your full name:

Enter your answer

2. Please enter your preferred name and pronoun for class. E.g. Vanessa (she/her)

3. Please enter your student number:

Enter your answer

4. I have stable internet:
○ always
○ most days
○ sometimes
○ rarely
○ never

5. I will be studying on a...
○ mobile phone
○ iPad (or similar)
○ Desktop/Laptop

6. In this class, you will be asked to click links in your student PDF slides to study internet-based resources and share your information with your group. If you are working on a mobile, you may not be able to take part in the group work activities. Do you think you will have any challenges accessing a PC/laptop during our 3hr lessons so you can fully take part in the lesson?

Enter your answer

7. I have a quiet study environment during my live class time:
○ True
○ False
○ Mostly True
○ Mostly False

8. I predict that I will have challenges fully participating during my live three-hour class. For example...

Enter your answer

9. My communication style in class is usually...(choose more than one)
☐ Vocal and confident
☐ Happy to contribute when called upon but don't generally jump in first
☐ A bit shy and prefer not to talk to the whole class
☐ Happy to contribute with a partner but not the whole class
☐ Not a fan of group work where I have to lead the discussion
☐ Prefer to be the leader of group work
☐ Never like to talk but happy to text in the chat
☐ Am willing to have my camera on the whole time
☐ Would prefer to have my camera on while I talk only, then turn it off to listen
☐ Don't like my camera to be on at all but will use my voice or text to contribute
☐ Other

10. My life can be described as...(choose the best option)
○ Not too messy - I will be able to focus on my studies
○ Messy - I will find it hard to focus on my studies
○ Other

11. When you're working with your peers, how do you prefer to collaborate? Tick all that apply.
☐ via the desk buddy private chat
☐ in breakout rooms of 2
☐ in breakout rooms of between 3-4
☐ in breakout rooms of between 5-7
☐ in private chat to the teacher but not with other students

12. How can your teacher help you to study more successfully this trimester?

Enter your answer

13. In this subject, you will need to share your student workbook with your teacher as a 'shared doc with editing rights'. This means that you will both be co-authors of your workbook (you writing your learnings and your teacher giving feedback if necessary). Have you been able to follow the slide 3 instructions and do this?
○ Yes, I have.
○ No, I haven't. I'll need some help to do this.
○ No, I haven't. I don't want to share my workbook with you.

Kindness as Ethics-in-Practice in the business curriculum

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Abstract

This research explores the pedagogic potential of kindness as a taught construct within a business ethics programme. Kindness in the curriculum is a topic often taught in early years' education (Kindness Curriculum, 2020) but seldom at tertiary level and this research will investigate the intrinsic and extrinsic reasons for this context (Caldwell & Bird, 2015). Business studies can provide students with the knowledge and skills essential to leading and managing people and resources. *Inter alia*, business ethics teaches the fundamentals of refraining from corruption and unfair competition. Furthermore, business ethics programmes might eschew traditional ethical theory, promoting instead such constructs as Triple Bottom Line (TBL) thinking (Giddings, 2002), Corporate Social Responsibility (CSR) and Corporate Citizenship. This research considers the taught benefits of modelling philanthropy (kindness delivered at the corporate level) as one positive aspect of business ethicality.

Instilling dispositions towards ethical behaviour ('virtues') at both the individual and company level remains a key goal of business ethics education. The 'humane' virtues as conceptualised within the modern Positive Psychology movement (Banicki, 2014; Peterson & Seligman, 2004) provide a theoretical underpinning for understanding kindness as a behavioural disposition, a tendency to 'tend and befriend' (Peterson & Seligman, 2004) that reliably generates ethical businesses grounded in ethical employees (Sternberg, 2001). This research argues that, for a business ethics course, business viewed through the lens of kindness should not be seen through the eyes of the student or the practitioner as an extracurricular activity but deconstructed as ethics-in-practice. The practice-based research intervention is in the form of a one-day student enrichment activity. The enrichment activity takes the form of a case study which looks at kindness through the lens of philanthropy. Students analyse a new case study exploring business philanthropy intervention, then complete a survey to review their opinion on key aspects of ethicality in business. Students evaluated the interconnectedness between ethics and how positive psychology is embedded in business. Thematic analysis was used to determine (a) ways of measuring values in action by doing good, and (b) changes in students' understanding of the role of ethics in business upon completion of the intervention. However, in summary our research suggests that kindness embedded in the business curriculum and academics have a key role in facilitating this improvement.

Introduction

As educators, our purpose is to lead students and manage the curriculum to create collective ethical value. Our academically oriented programme planning shapes the ethical understanding of undergraduate and post graduate students today and post-graduation. As academics and business leaders, we recognise the importance of kindness in the business curriculum and distil it as a value in future business employees, business leaders, and enterprises. Kindness in the curriculum is a topic often taught in early years' education (Kindness Curriculum, 2020) but seldom at tertiary level. This research explores the pedagogic potential of kindness as a taught construct within a business programme. How might a business ethics programme built upon kindness deliver sound ethical outcomes? Business-minded people need more than just being of a good character; education can help prepare students and business owners of tomorrow about making ethical decisions; follow good governance; how values conflicts might impact on life and career; protect human rights and the dignity of all people involved in business, oppose discrimination and exploitation; protect the right of future generations and the planet (Ferrell, 2019). This research considers the taught benefits of modelling philanthropy (kindness delivered at the corporate level) as one positive aspect of business ethicality. We consider (and reject) some sceptical arguments querying the soundness of founding (business) ethics upon Kindness and Philanthropy using an intervention with tertiary-level students to educate the benefits of philanthropic business.

Literature

Philanthropy relies upon personal identification of donors with the causes they support (Harvey, 2021). Recent research into corporate philanthropy suggests a serendipitous connection between philanthropic investment and emotionality finding that positive affect amongst employees at a firm's headquarters encourages higher executive expenditure on corporate giving. (Dang & Nguyen, 2021) discovered that, where a company's management communicates emotional commitment to a social cause, both investors and markets may respond favourably to philanthropic spending.

For Kant, the benevolent emotions provided a weak basis for ethicality. According to Kant, if morality is grounded in humane feelings, then our capacity for ethical behaviour reflects the extent to which individuals inherit naturally benevolent impulses (Schneewind, 1992). Applying similar thinking to business philanthropy, ethically approved firms would become those enjoying the lucky accident, of possessing a CEO or other champion(s) interested in realising public good. This suggests that ethics should be by design and not by good fortune. Likewise, learning by design is a similar movement to ensure diversity, equity and inclusion is designed for in the classroom through innovative assessment in the building of transversal skills.

Sceptical argument 1

Is Kindness a genuine 'virtue' (character strength)? 'Kindness' is a late-starter among the character strengths. As a 'humane' character trait, kindness does not appear among the Ancient Greek virtues.

Sceptical argument 2

The benevolent emotions provide a weak basis for ethicality and if morality is grounded in benevolent (humane) feelings then our capacity for ethical behaviour reflects the extent to which individuals inherit naturally benevolent impulses (Schneewind, 1992). Individuals lacking such impulses might lack a capacity to be ethical/good. This prospect offended Kant's sense of justice. Kant believed that the capacity for ethical behaviour should be equally open to all persons. Does this quote simply mean that everyone can learn to be ethical, from which we can extrapolate that organisation need to embed practices that promote ethical behaviours?

Benevolent emotions as philanthropic supererogatory

The benevolent emotions (e.g., philanthropy) provide a weak basis for business' ethicality. Ethically approved firms would become those enjoying the lucky accident, of possessing a CEO or other champion(s) interested in realising public good. Philanthropy is supererogatory (good to have, but activity over and beyond duty). The argument here is a close parallel of the argument just provided, for treating kindness or benevolence as the human instinct that grounds ethical behaviour. The Strengths of Humanity table suggests that Social Intelligence is less important within institutions and rituals.

Table 1: Criteria for Strengths of Humanity (Peterson & Seligman, 2004, p. 292).

CRITERIA FOR *Strengths of Humanity*	Fulfilling	Morally valued	Does not diminish others	Nonfelicitous opposite	Traitlike	Distinctiveness	Paragons	Prodigies	Selective absence	Institutions and rituals	TALLY
	1	2	3	4	5	6	7	8	9	10	TALLY
Love	X	X	X	X	X	X	X	X	X	X	10/10
Kindness	X	X	X	X	X	~X	X	X	X	X	10/10
Social intelligence	X	X	X	X	X	~X	X	X	X		9/10

~ Somewhat satisfies criterion.

The 'humane' virtues as conceptualised within the modern positive psychology movement (Banicki, 2014; Peterson & Seligman, 2004) and provide a theoretical underpinning for understanding kindness as a behavioural disposition, a tendency to 'tend and befriend' (Peterson & Seligman, 2004) that reliably generates ethical businesses grounded in ethical employees. Philanthropy relies upon donors personally identifying with the causes they support (Harvey, 2021). Recent research into corporate philanthropy suggests a serendipitous connection between philanthropic investment and emotionality. The positive affect amongst employees at a firm's headquarters encourages higher

executive expenditure on corporate giving. (Dang & Nguyen, 2021) where a company's management communicates emotional commitment to a social cause, both investors and markets may respond favourably to philanthropic spending. This serendipitous connection lends support to the Kantian argument of the previous slide.

At the very least, we might assume that, where philanthropy is required to make good shortcomings in public funding, many good causes and desirable public goods will be neglected because these are not emotionally engaging. The notion that philanthropy is supererogatory, something way beyond duty, does not seem to figure into the thinking of Carroll's conceptualisation of the pyramid. Carroll sees philanthropy as one of four business responsibilities that should be embraced in any strong conceptualisation of CSR: economic, legal, ethical, and philanthropic responsibilities. It links philanthropic responsibilities with the good corporate citizenship of a company. As a concept, corporate citizenship seems to have lost out over CSR, as the term of art for a company's social responsibilities.
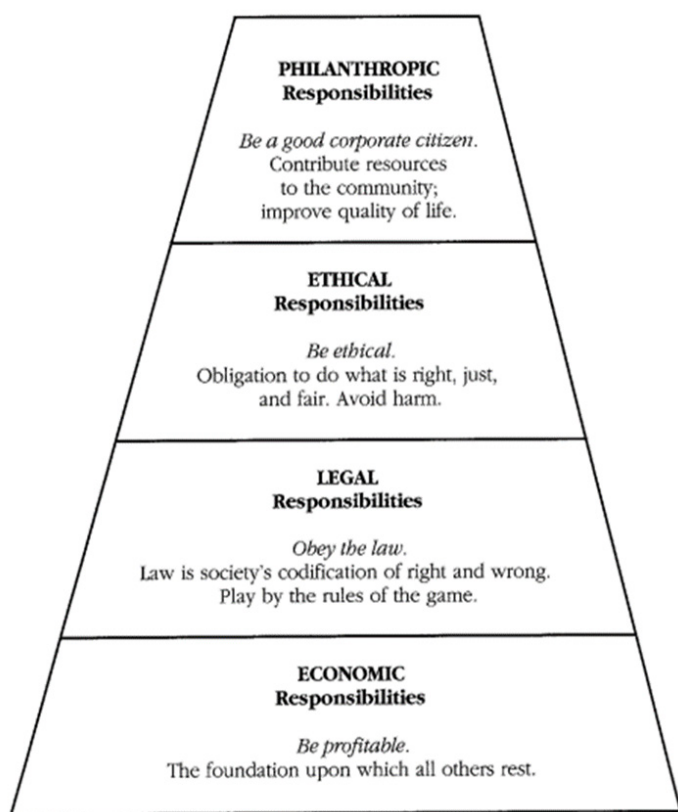

Figure 1: The pyramid of corporate social responsibility (Carroll, 1991, p. 42).

To some extent, students come to business programs already formed, ethically speaking, as people do have predispositions to behave ethically or unethically. Business ethics education aims to reinforce existing good dispositions (Trevino, 2017). Business ethics education reminds students that their character strengths (virtues) should not be left at the company door. Modelling good ethical business behaviours, and ethically sound companies is key to this education. Business Ethics does not teach ethical behaviour from scratch. Students arrive at Business Ethics programs with their ethical instincts already developed.

Evaluative method

The research proposed a practice-based research intervention (Creswell, 2014), in the form of a one-day ethics enrichment activity in which students analyse a relevant report exploring kindness in the curriculum. An article was disseminated to the students to read the day before the intervention and to reflect and take some notes. Respondents were asked to consider statements pertaining to a journal aticle on understanding university students' conceptualisations and perceptions of kindness: a mixed methods study (Binfet et al., 2021). This article was chosen because the subjects were relatable both being at university level and the topic was the same as the intervention. Students then evaluated the interconnectedness between ethics and how positive psychology can be embedded in business. Thematic analysis was used to determine ways of measuring values in action by doing good.

The authors (Day and Robinson) delivered a short presentation on Day 2 on ethicality in business to the students and asked the students to complete a short survey at the end of the presentation. The focus was on how a leader or manager raises values-based issues in an effective manner through a carefully considered approach and used the report to base a robust discussion on to identify positive examples of times when people have found ways to voice and thereby implement their values in the workplace. Through the lens of positive psychology with a strategic purpose and using self-assessment tools and reflective practice to see how an individual's decisions align with ethics in an organisation and expectations of how people will behave in various situations.

Subjects

The subjects were a group of Master of Business Administration full-time students studying the research methods module. The class composition was mostly male, and culturally diverse (around 60% international and 40% domestic students from Ireland). The survey was conducted using Survey Monkey from fifteen participants and asked six questions. Sixty-one percent completion rate with the estimated time to complete was three minutes.

Figure 2: MBA students in a classroom.

Data collection procedures

A discussion followed the PowerPoint presentation on ethics and the subjects were asked to complete a short online survey of six questions openly and honestly. The discussion was completed in Zoom within a hybrid environment as some students were online and some were in the classroom. Students were asked to complete the survey in class or if they wished to consider the questions for longer, to submit by the end of the day. The questions were chosen based on no prior knowledge of the subject and could be completed using experiential learning, opinion and drawn from one's own personality characteristics. Within the room, 15 students (n=15) submitted their responses. Some of the responses have been listed below.

Results

RQ1. Do you feel that your attitude to a business would change, upon hearing of their acts of philanthropy or kindness?
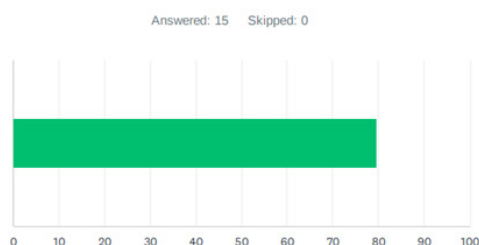

Figure 3: Responses to RQ 1.

The scale of 0-100 was used to ask this question and the results were 80% of the fifteen students who submitted the survey. The question was designed to probe further into why the students scored 80% by asking a similar question for RQ2.

RQ2. Why do you feel that your attitude to a business would change, upon hearing of their acts of philanthropy or kindness?

The response to the question on whether attitudes would change upon hearing of acts of philanthropy or kindness was centred on the intrinsic nature of doing good and how it would instil the students with encouragement, enthusiasm, motivation, and ideas. One student described how business with a philanthropic disposition felt very inclusive and less profit-orientated. Students felt that it depends on the companies' attitudes to the employees as well and there should not be a disconnect between the outward projection of generosity and a disparity with the workforce. This comment was very insightful because it recognised some altruistic attitudes of some companies and how they differed from their treatment of employees. Some of the comments were around morale traits and how they impact the whole of humanity, even expressing the inclination that philanthropy was part of their goals. Students felt that this attitude about kindness was a necessity in today's business development and environment. At the end of the question, students felt that volunteering in an organisation should be invested in and is a core part of the business structure, which

did not suggest that it was top-down leadership, but part of a person's personality and life choices.

RQ3. What things might prevent persons from displaying kindness to one another?

This question really delved into what sort of things would prevent a person from displaying kindness, some of the responses were around time, patience, pride, and interest. One student suggested that it may be related to a negative past experience of being kind and how this may make him/her reluctant to help in the future. Interestingly, students spoke about the fear of judgment in this answer and about their own insecurities about being kind, based on personality but also based on societies standards, suggesting that this may be a cultural attitude or related to ego. The point on ego was expanded to review other people's opinion of kindness through the lends of unintentionally hurting someone through trying to help, this speaks to individual insecurities and concern about the environment rather than the person he/she is trying to help.

RQ4. Can you identify factors that would stand in the way of a business engaging in acts of kindness?

This question looked at preventative attitudes to acts of kindness and the considerations were cost, time, the lack of conviction or purpose alignment, pride, lack of resources, legal and economic factors. The students also considered the reasons which were boosting confidence, control, influence, and an interesting point was the fact that it would be completed if it were part of the process-centred approach by management. The social cohesion aspect of kindness was brought into this answer through "understanding the community" which again speaks to the cultural aspect of the question and answer. Students addressed this question as employees and citizens which speaks to the global citizenship nature of this research.

RQ5. Is it easier for individual persons to display kindness, than it is for a business enterprise to display kindness?

This question looked at individual displays of kindness and whether this could be better achieved than by an organisation. The students were able to express the connectedness of employees as stakeholders, but interestingly looked at as part of the onboarding process in an organisation and how the training was aligned to the company goals, vision, and mission. Students felt that any acts of kindness should be at an individual level for dissemination, both inside and outside of the organisation and strongly felt that it should be on a "daily basis" rather than a one-off corporate charity event. Students felt that the gratifying aspect comes from private acts rather than corporate acts on a much bigger scale.

RQ6. What is your understanding of modern business ethics education as a form of virtue ethics?

This question was complex to understand the interconnectedness between business ethics education and how it forms part of virtue ethics. The students felt that this was a two-way process and was very much about respect for individuals; "happiness, humility, cooperation, honesty, simplicity, love, unity, and peace" were all words expressed about bringing change to society through virtue ethics being taught in business. These comments align with Peterson and Seligman (2004). Students felt that if they were "both correlated and included in curriculum, it could bring change in society." There was a strong sense of benefit to others and self and that these could be mutually result-orientated. The final comments were around face-to-face interactions and interventions as being highly beneficial and a key part of this process.

Figure 4: An Nvivo word cloud showing the key terms from the survey.

NVivo emerging themes were based on the frequency of the responses and based on a qualitative approach.

Morality – "It's basically a moral trait".

Motivational - "Because its gives motivation to the team and more enthusiasm to work, devote their time with business development".

Ego – "Factors i think which may prevent somebody from being kind to someone is their Ego and their behavior of not being friendly to somebody".

Individual versus Collective – "Yes, it is easier as the individual can act independently", though monetary donations can be given privately and not collectively if one feels so.

Resources – "Less resources, resources who aren't willing to participate".

Trait – "It's basically a different trait to understand business ethics and to indulge in a different perspective".

Limitations

This was only a small-scale intervention based on a two-plan approach to allow reading time and to capture student views on ethics as a concept and as a practice in business. The research had a limited number of students n=15 who were involved in the research activity and who actually submitted their responses to the online survey. Question 5 generated mostly yes answers and could have been an open question. A broader question or reworded question would have allowed for more qualitative feedback. Additionally, the opportunity for any other comments would also have allowed scope for a further interrogation of the topic. The students were all postgraduate students studying for a Master of Business Administration (MBA) and the answers may have been different from a mixed cohort of undergraduate and postgraduate students or using an alternative programme of study. It would also have been advantageous to gain an insight into the student opinion on this topic was before reading the report. As an intervention, the researchers felt that it was too short to conclusively determine the opinions and views of students and a longer study with more participants may have helped. The authors would also have liked to see where in the results it showed that the students saw 'ego as...' and why should it be a corrective action? This would have helped building the scaffolding for the participants and for the research study.

Discussion

A longer intervention with face-to-face discussion rather than online using Zoom would have enabled a more collegiate and discursive environment. These links to the inclusive environment align with Giddings (2003). That said, the research study did provide an interesting insight into how students see an interconnectedness between kindness and morality. The other interesting, noteworthy point is that students are also seeing leadership ego as a preventative rather than specifically resource driven. As educators, we can view this as a potentially corrective action which can be taught. A convergent parallel mixed method could be used to explore the topic and the future intent of ethics through workshop scenarios and with role-models in this field. Kindness as ethics-in-practice is an interdisciplinary understanding of a complex topic or concept. The question which looked at preventative measures stemmed from individual rather than resources, social media, or corporate drive (Zolotoy, 2021). Thus, suggesting that ethics in business should be explored as a co-creative process with students rather than from an academic viewpoint and that student voice can be the driver in an otherwise myriad of ethical possibilities.

Conclusion

This research argues that, for a business ethics course, business viewed through the lens of kindness should not be seen as an extracurricular activity but deconstructed as ethics-in-practice. It outlined a practice-based research intervention, in the form of a one-day student enrichment activity. Instilling dispositions towards ethical behaviour

('virtues') at both the individual and company level remains a key goal of business ethics education and the MBA intervention described here forms an intervention in this direction. Students analysed a new case study exploring a business philanthropy intervention, then delivered their reflections through a survey. Students then evaluated the interconnectedness between ethics and how positive psychology can be embedded in business. Thematic analysis was used to determine (a) ways of measuring values in action by doing good, and (b) changes in students' understanding of the role of ethics in business upon completion of the case study. This activity did prove that students thought something was incorrect and therefore proving the authors' claim that Kindness should be taught in a business class.

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Making assessment feedback effective in higher education: A review of literature

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Abstract

Assessments and feedback are interrelated and play a vital role for students, educators, and institutions. However, giving feedback can be daunting for educators and receiving feedback can be unsatisfactory for students, diminishing the effectiveness of further improvement of students' learning. This research reviews recent literature from 2017 onwards to identify students' and educators' challenges in assessing their perceptions and experiences of the feedback process. Additionally, it reviews the literature about what feedback means and the features that make feedback effective. This research proposes five key areas, namely: (i) content; (ii) tone and language; (iii) feedback literacy, (iv) educator training; and (v) assessment design and marking guidelines, for educators and their institutions to improve the feedback process, thereby improving the learning experiences of students.

Keywords: Assessment feedback; feedback; lecturers' perceptions; students' perceptions.

Introduction

Assessments have become a key element of students' learning to determine their achievements, providing positive and/or negative impacts on students learning. Feedback on assessments plays an important role in improving students' learning, as it assists students to focus their decisions on how to improve (Henderson et al., 2019) and assists students in addressing intellectual challenges and cognitive development, resulting in success (Cohen & Singh, 2020). According to Meiras (2021), feedback is a process of dialogue with multiple inputs such as peer reviews, and it works best in a collaborative environment. However, with the rise of asynchronous learning environments, giving and receiving feedback has become challenging and the effectiveness of feedback depends on the quality of learner-content interaction and learner-teacher interaction (Fabriz et al., 2021).

Whether it is a synchronised or asynchronised learning environment, assessment feedback may have a limited impact on students' learning when assessments are graded, and educators use feedback to justify the mark (Rawlusyk, 2018). It can also be argued that feedback has little or no impact when students are solely focused on the mark. The adverse impacts of feedback can be attributed to whether students use the feedback they receive for improving future learning. Lancaster et al. (2020) found that students who receive a higher grade in their assessments use feedback for further improvements in subsequent assessments, compared to students who received a lower grade for their assessments. Comparatively, assessments without grades attached may have less impact on students' learning because of students' resulting in lack of motivation and effort (Broadbent et al., 2018).

In contrast, the research argues that inefficiencies in feedback arise. For example, Cohen and Singh (2020) argue that the effectiveness of feedback given by educators depends on its quality and reception by students, so that gaps between the expected level and actual level are filled and students understand why and how they can fill gaps. Inefficient feedback limits students' engagement with the feedback and opportunities for future improvement (Winstone et al., 2017). Meanwhile, educators face difficulties in writing feedback for every student due to time constraints and students' unique characteristics (Selvaraj & Azman, 2020). Evaluating students' work and providing feedback based on educators' evaluation is one of the most difficult and complex tasks for educators but the constructive feedback is one of the most powerful encouragements for students and their learning (Brookfield, 2015). These findings imply that both educators and students face challenges when giving and receiving feedback, which can result in less effective and more difficult assessment feedback processes.

To improve the effectiveness of the assessment feedback process, it is important to improve the giving of feedback to enhance students' experiences in receiving it. This research, therefore, aims to review literature identifying: (i) students' perceptions of feedback and why students face difficulties when interpreting assessors' feedback for future improvements; (ii) educators' perceptions of assessment

feedback and its challenges; (iii) what feedback means and key properties or areas to enhance the effectiveness of the feedback process; and (iv) potential changes to assist educators and their institutions that could have a positive impact on students' learning.

Methodology

This methodology section discusses the inclusion criteria for research papers in the present study. A systematic database search for research about assessment feedback in higher education was conducted to identify relevant research papers. Three databases – EBSCOhost, ProQuest, and Emerald – were searched for publications. Google Scholar and ResearchGate searches and an internet search were also performed to ensure that relevant studies were not missed. Starting with broad keywords such as "assessment feedback", "effective feedback", and "feedback in higher education", a literature search was carried out, limited to articles in English. Research within research articles was also conducted to identify relevant papers. The analysis of the literature considered the most recent papers, published from 2017 onwards. Overall, 27 studies were included in the review.

Perceptions and experiences

Students' perceptions and experiences of receiving feedback

This section of the review examines students' perceptions and experiences of assessment feedback, highlighting the prime importance of educators and institutions altering how feedback is provided and also assisting students to better use feedback to implement improvements. Although students appreciate educators' effort and time in giving feedback on their work, they report that they are not receiving the feedback they expected, identifying: (i) strengths and weaknesses in their work; (ii) similar mistakes that can be avoided in subsequent assessments to improve performance; and with (iii) a tone of encouragement.

The literature shows that students expect educators to comment on their performance to justify marks and/ or grades, and pinpoint errors and improvements for the future (Deeley et al., 2019). While students believe feedback should enable them to identify strengths and weaknesses in their work (Deeley et al., 2019; Dawson et al., 2018; Henderson et al., 2019), they want educators to outline any weaknesses with a positive tone of encouragement, as negative feedback demotivates them (Deeley et al., 2019; Henderson et al., 2019). Importantly, Henderson et al. (2019) and Cohen and Singh (2020) observed that positive comments motivate students, thus inclining them to read the remaining feedback and comments. It is worth noting that positive comments and praise for students with lower marks could also demotivate and decrease students' trust in educators' marking and feedback.

In relation to seeking further clarifications, Deeley et al. (2019) discovered that students believe some educators feel that they are being challenged by students about their expertise if further feedback and/or clarification is sought because negative and harsh comments are provided. In contrast, they also found that some other students felt that the best feedback occurred when there was an opportunity for discussion with the educator. These findings reveal that the method of delivering feedback significantly impacts its effectiveness.

However, Pitt and Norton (2017) argue that students' reactions to feedback depend mainly on their predetermined expectation of their grade, and they are more likely to react emotionally, resulting in either appreciation and gratitude towards the feedback or ignoring it. Supporting that these are emotional reactions, Lancaster et al. (2020) found that students who received a higher grade for their assessments used the feedback for further improvements in their subsequent work. However, Lancaster et al. (2020) also stated that further research is required to investigate the impact of emotional reactions on students' perceptions and use of feedback. Results from a survey conducted by Hill et al. (2021) found that some students felt angry and frustrated when receiving insufficiently supportive feedback and harsh comments, resulting in a lack of motivation in future assessments. Additionally, Hill et al. (2021) suggested educators should use non-judgemental language and a positive tone to comment on aspects of students' work, along with clear measures for further improvement.

The main barrier preventing students from acting on received feedback to improve their subsequent assessments is difficulty in interpreting it and identifying how mistakes could have been avoided. From a survey of students, Nash and Winstone (2017) found that students prefer more specific feedback, explaining improvements they should make in future assessments, to avoid similar mistakes. Gravett and Winstone (2019) discovered that the use of academic jargon, not having enough guidance on applying feedback, and ambiguity in comments created comprehension difficulties and left students feeling that feedback was not useful. Students also believe that outlining errors in feedback does not assist in developing and improving their subsequent assessments (Cohen & Singh, 2020). These findings suggest that the effectiveness of feedback depends on students' interpretations. In order to assess students' interpretations of written comments and the effectiveness of feedback, Ginsburg et al. (2020) used two sets of words and phrases commonly appearing on feedback and asked seventeen very experienced educators from four institutions to define the meaning of each word or phrase. The respondents found that it was challenging to interpret and understand the meaning of a single word or phrase without context, which supports students' comments about lack of feedback or feedback with limited context and not understanding the meaning of educators' comments and implementation of feedback for improvement in future learning.

To summarise, the key themes arising from the literature review regarding students' perceptions and experiences of feedback are that improving its content and quality with an encouraging tone and language enhances its usefulness for

future improvement.

Educators' perceptions and experiences of giving feedback

The present research then reviews the literature on educators' perspectives on feedback and the difficulties faced when providing feedback. From a survey of educators, Cohen and Singh (2020) found that educators believe that they are highly skilled and capable of giving feedback to students which closes the gap between students' actual level and the expected level. However, the same research found that educators admitted that students feel feedback is inadequate if it is generic. It is worth noting that when students receive generic feedback, the usefulness of the feedback is decreased, making it less likely to be acted on in future.

Similarly, Mulliner and Tucker (2017) found that educators believe their feedback is detailed, fair, and specific to the areas that students should improve. It is worth noting that educators believe that the quality of the feedback depends on the educator. This can be linked to potential inconsistencies in feedback practices. Smith and Lowe (2021) stated that, although educators believe that they justify grades, make improvements to avoid repetition of similar mistakes, and assist by providing improvements for future assessments, it is likely that educators do not construct the feedback appropriately to improve the trajectory of results in future assessments. This can be linked to the findings of Henderson et al. (2019), who argue that it may be difficult for educators to determine whether students understand their feedback and use it to improve future assessments.

However, evidence from a discussion of responsibility-sharing in the context of assessment feedback shows that educators' view of the barriers preventing students from using feedback were lack of motivation, enthusiasm, and effort in seeking feedback for improvements (Nash & Winstone 2017). This same research also noted that some other educators believe students' main focus is their mark or grade, but not the feedback itself. As mentioned before, Nash and Winstone (2017) found that students blame educators for not providing specific feedback for improvements, so they recommend shared responsibility of both students and educators. While students need to spend more time and effort on feedback, educators need to invest more time in ensuring feedback can be applied in other subjects in the future (Nash & Winstone, 2017). However, the same research acknowledges that educators face difficulties when giving future-oriented feedback. Although some educators noted the importance of giving individual feedback and their desire to do so, they expressed the challenges they face due to time constraints (Hicks et al., 2019).

In contrast, some educators claim that they are highly skilled and capable of providing feedback, but that students require effort and time to best use feedback. However, Norton et al. (2019) found evidence that educators acknowledged lack of experience in following marking criteria and guides when providing feedback, and thus recommended formal training on the assessment marking process for educators. These findings align with those of Henderson et al. (2019)

that some educators, especially sessional staff, may lack education or training on marking and providing feedback. A review of literature by Chowdhury (2019) found that some research argued that rubrics are a useful tool, but they limit educators' judgements of students' work because those who regularly use rubrics could assume that if something is not mentioned in the rubric, it may not be important.

In summary, in this review of educators' perceptions and the challenges of the feedback process, the key themes identified are students' awareness and use of feedback, educators' awareness of feedback practices and professional training, as well as feedback and assessment design and marking guidelines.

What is feedback?

This section reviews various definitions and key features of feedback discussed in the recent literature. While both educators and students acknowledge that feedback should assist students in improving, there are various definitions of feedback discussed in the literature, identifying features such as an action plan with directions and guidance on how students can improve (Watling & Ginsburg, 2019) and an explanation of students' strengths and weaknesses and ways to improve and value students' effort by providing strategies and direction for future developments while allowing performance to be tracked (Zhang & Zheng, 2018). Shafi et al. (2018) noted five key elements of effective feedback: (i) recognition of the student's effort and achievement; (ii) justification of the grade, (iii) reference to the assessment; (iv) integration of improvements into the response; and (v) clear suggestions for future improvements. They also argued that students should take responsibility for their work instead of finding excuses for their shortcomings. However, it is an educator's responsibility to make feedback effective and constructive and to provide clear and correct feedback to students explaining mistakes and how to avoid them in future.

To improve the learning experience of students, Bartkowiak-Théron, McShane and Knight (2020) suggest that educators should consider innovative, transparent and reliable feedback, building the trust between students and educators. Henderson et al. (2019) stated that giving feedback is a complex process and identified twelve conditions for feedback to be effective, under three key themes – capacity for feedback, design for feedback, and culture for feedback. It is worth noting that their research also suggests that a culture for effective feedback needs to be developed within the institution, moving away from the typical focus of 'best practice' of giving feedback towards designing 'enabling' feedback.

A review of this research suggests educators and their institutions should consider a feedback approach which 'enables' students to identify their strengths and weaknesses in the submitted work and to improve future work.

Suggestions for enhancing the feedback process

A review of the literature reveals that both students and educators acknowledge that feedback should be given in a way that enables students to learn from their mistakes and improve in future assessments. However, the review shows that a mismatch of perceptions and experience of feedback between these two groups contributes to the deteriorating effectiveness of feedback. Important factors that contribute to inefficiencies in feedback include: (i) content; (ii) tone and language; (iii) feedback literacy; (iv) staff training; and (v) assessment design and marking guidelines. Therefore, this section evaluates literature identifying ways to reduce the gap between perceptions and experience of students and educators regarding assessment feedback.

(i) Content

The content of feedback should enable students to identify their weaknesses and strengths, and to use different methods to avoid mistakes and improve future work (Shafi et al., 2018; Dawson et al., 2018). The content of feedback should also link to the assessment criteria and be actionable (Haughney et al., 2020). A well-defined marking rubric is a great tool for students to understand the expectations of an assessment and allows educators to judge students' work accurately, provide useful comments on strengths and weaknesses, and suggest improvements (Chowdhury, 2019).

(ii) Tone and language

Tone and language play a critical role in the effectiveness of feedback. Educators should provide feedback that encourages students (Dawson et al., 2018) and enables students to receive messages clearly and apply the suggestions (Haughney et al., 2020). It is also worth noting that a personalised and encouraging tone in feedback makes students feel that it addresses them personally.

A survey of learning developers conducted by Gravett and Winstone (2019) identified where language became a barrier for students to comprehend feedback, especially the use of academic jargon, complex terminology, acronyms, and careless writing with grammar or spelling mistakes. Importantly, these findings suggest that educators should use an encouraging tone and simpler language to convey the message clearly and accurately.

(iii) Feedback literacy

Feedback literacy refers to students' ability to understand and process information received to improve their learning (Carless & Boud, 2018). Carless and Boud (2018) proposed four key features that underpin feedback literacy: 'appreciation of feedback'; 'ability to make the judgement'; 'managing affect'; and 'taking action to use feedback'. Educators have a significant impact in assisting students to develop feedback literacy (Carless & Boud, 2018; Hill et al., 2021). Improvements in students' feedback literacy lead to long-term learning benefits for students (Carless 2018;

Carless & Boud, 2018), including enhanced motivation, use of productive strategies, and active reflection on feedback for learning and continuous improvement. Meiras (2021) also stated that feedback literacy is a key aspect of the development of students' motivation and engagement.

(iv) Educators' training

Educators play a major role in the feedback process as their judgements of students' work against marking criteria allow constructive feedback to be provided to students to improve their learning. To provide constructive feedback, educators require expertise, formal training, and sustained feedback from their colleagues about the use of feedback (Norton et al., 2019; Henderson et al., 2019; Selvaraj & Azman, 2020) which enables them to accurately assess students' work against the marking criteria.

(v) Assessment design and marking guidelines

Clearly designed and connected assessment tasks increase the effectiveness of feedback (Henderson et al., 2019). For positive long-term learning benefits to students, educators, and their institutions, the design of curricula and assessments should be constructed in such a way that students are able to apply the feedback in subsequent assessments, enabling them to make informed judgements about their work (Carless, 2018). As noted earlier, a well-designed marking rubric assists students by communicating requirements and outlining strengths and weaknesses in their work, while also assisting educators to make accurate assessments of students and mark their work consistently (Chowdhury, 2019). Notably, educators require clearly stated mark allocations and instructions to make their rubric more effective.

Conclusion

Assessment feedback plays an important role in students' learning. This review of the literature identified that students expect feedback to outline mistakes, strengths, and weaknesses in their work, and how these could have been avoided. However, students found that sometimes feedback was insufficient for them to understand all or most of it and improve in future. Educators believe they are capable of giving enough feedback for students to know their mistakes and improve in forthcoming assessments, and they claim that some students make insufficient effort to use feedback for improvement. This paper also reviewed literature that identify what feedback means in higher education and the features of effective feedback.

The present study proposes five key areas that educators and their institutions should consider enhancing to increase the effectiveness of feedback and thus assist students in improving their learning: (i) content; (ii) tone and language; (iii) feedback literacy; (iv) staff training; and (v) assessment design and marking guidelines. Further investigation is required by educators and their institutions as to the nature of changes in their practices that 'enable' students to use

feedback to make an impact. Finally, as Henderson et al. (2019) stated, "feedback is a complex process" but changes to enable students to use feedback and see improvements in their learning are beneficial not only for students, educators, and institutions, but also for the wider community.

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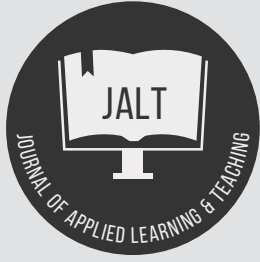
Using Google Jamboard in teacher training and student learning contexts

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Abstract

Keeping social constructivist learning experiences alive in the online classroom is important for our students' positive learning outcomes. Supporting pedagogies such as collaboration, discovery learning, and the principles of Universal Design for Learning can be facilitated by EdTech tools. One such tool is Google Jamboard, a cloud-based virtual whiteboard. This review of Jamboard focuses on how this simple platform can be used in two contexts: teacher-training sessions within a Scholarship of Teaching & Learning (SoTL) program and by educators in the classroom for student learning activities. The aim of this review is to show illustrative case study examples from around the world of Jamboard in practice, in order to inspire educators to try Jamboard in their own teaching and learning contexts.

Keywords: EdTech; Jamboard; online learning; social constructivism; SoTL.

Introduction

In March 2020, the global COVID-19 pandemic changed the way we teach (Butler-Henderson et al., 2021; Stafford, 2020). Cloud-based whiteboards, such as Google Jamboard (Jamboard) became one of the staple tools that educators across the globe utilised to facilitate online collaborative student learning experiences. Learning contexts ranged from language (Khoiriyah et al., 2022) and anatomy learning (Sweeney et al., 2021) to teacher training (Debelius & Mooney, 2020). This review of Jamboard will focus on two learning contexts in which Jamboard can be effectively used: as a teacher-training tool within a Scholarship of Teaching and Learning (SoTL) program and as a teaching tool with students in the classroom. The review will begin with a brief explanation of what Google Jamboard is, followed by illustrative case studies from around the world to inspire other educators to try Jamboard in their own teaching and learning contexts.

What is Jamboard?

Jamboard is a user-friendly platform for educators and their students to learn through. It is a digital whiteboard tool for synchronous and asynchronous collaborative learning experiences, accessed from either a dedicated Jamboard device, a PC, a laptop, or a mobile device via an app (Google, 2022). In its most basic form, participants collaborate via text, sticky note, image insert, or by drawing, on an online whiteboard that is accessible through a single link, for free. In this context, the host only needs to have a Google account to access this 'lite' version of Jamboard and anyone with security access to Google products can participate as an anonymous user. Alternatively, it can be purchased as a physical electronic whiteboard or app, incorporating more features, such as the integration of Google's suite of products such as Docs, Sheets, and Slides for a complete immersive collaborative product solution (Gavin, 2019; Google, 2022). Google Workspace's (formally G-Suite) collection of products was launched in 2006 with Jamboard being incorporated into it in 2016 (Weir, 2020).

The dashboard is a simple page with your saved 'recent Jams' on display and a circle icon with a '+' sign in the bottom right corner with which to create a new board – or 'Jam'. These Jams can remain a white page or a colour or inserted image can be used as wallpaper. You can download your Jams as a Pdf and control the sharing link access for viewing or editing. In this case, it is similar to Google Padlet, but Jamboard has less features for when a simple solution is required for your learning purpose or your students' technology skill levels are low.

The benefits of SoTL programs using Jamboard in teacher-training contexts

Collaboration

Jamboard is a great tool to achieve participant collaboration. This is an important feature of online learning as it allows social constructivism to thrive (Harasim, 2018). Both Harasim's (2018) Collaborativism and Salmon's (2022) 5-Stage Model for Online Learning models were designed to facilitate

Figure 1: Google Jamboard homepage showing existing 'Jams' and a 'create new' button.

collaboration in asynchronous, forum-based learning contexts in order to ensure social constructivism could still thrive through a text-based communication channel. Jamboard's value-add is that it can promote collaboration via text, not only in both synchronous and asynchronous learning settings, but in a more visually appealing design as compared to an online forum. Harasim and Salmon would surely welcome such a step up to the asynchronous forum experience. However, a review of the recent literature around the use of Jamboard shows that most SoTL programs use Jamboard in a synchronous manner, most likely as a direct result of the pandemic pivoting on-campus classes to online versions.

In a research article presented in Portugal, Bakala et al., (2022) describe using Jamboard to gather the collective thoughts of kindergarten teachers, after an experiment on using programmable robots to teach young children computational thinking skills. In the U.S, Georgetown University's Debelius and Mooney (2020, p. 47) decided Jamboard's facilitation of collaborative, peer-peer learning experiences would complement their "relationships-based cohort model" SoTL program. This program aims to shift educators' perceptions of viewing EdTech not just as a saviour in a time of crisis but as an ongoing staple of learning tools (Debelius & Mooney, 2020). In South Africa, Ndwambi et al., (2022) used Jamboard as a collaborative quiz answer space, testing tutors' answers to a quiz on Ubuntu principles taught within a SoTL program session. I have used Jamboard in a collaborative SoTL experience – the induction of new educators to an Australian higher education business college. In this context, Jamboard was used to replace a more one-directional, host-to-participant PowerPoint slide presentation of pre-prepared content. Instead, Jamboard was used to facilitate a sense of community by allowing multiple authors to post questions and answers in an equally shared online space. These four cases show that Jamboard can bring online participants of SoTL programs together to a collaborative online space, regardless of global location, content, or educational institution type.

Reflection

Jamboard is useful in reflective online sessions. Both Bakala et al., (2022) and Ndwambi et al., (2022) used Jamboard for participants to reflect on past learning experiences, including that of the place for technology within the classroom. In this sense, they were not only using Jamboard to learn through reflection, but they were also reflecting on their students' ability to learn through technology. Should the reader be interested in replicating this, the TPACK (Technological, Pedagogical, and Content Knowledge) model is a helpful starting point. It was designed for such a reflective task within a SoTL program by guiding the educator to critically think of their competence levels regarding the intertwined components of technological skills, teaching skills, and subject knowledge (Koehler & Punya, 2009; Glowatz & O'Brien, 2018). All educators who choose to use EdTech products such as Jamboard, should reflect on their competence and confidence in incorporating these tools and engage in training programs that teach them how to do so effectively.

Brookfield asserts that all educators must be critically reflective, in order to (amongst other reasons), "unearth assumptions of power" (2017, p. 36). I did just that in the SoTL program's new education induction Zoom session. The first page of a four-page Jamboard was a reflective activity that showed a quote that touches on student-centredness and active learning in teaching practice. As a college that prides itself on practicing student-centred, workshop-style learning experiences that give voice to all participants, it is important to reveal the teaching mindsets of its new recruits early on. The participants were asked to reflect on their attitudes to the quote and insert a personal belief statement onto the quote page by using the sticky note tool. This statement could either agree or disagree with the quote. Within ten minutes, I knew the teaching and learning philosophies of my new educators, enabling note-taking on who may need further professional development to facilitate learning in the college's preferred manner.
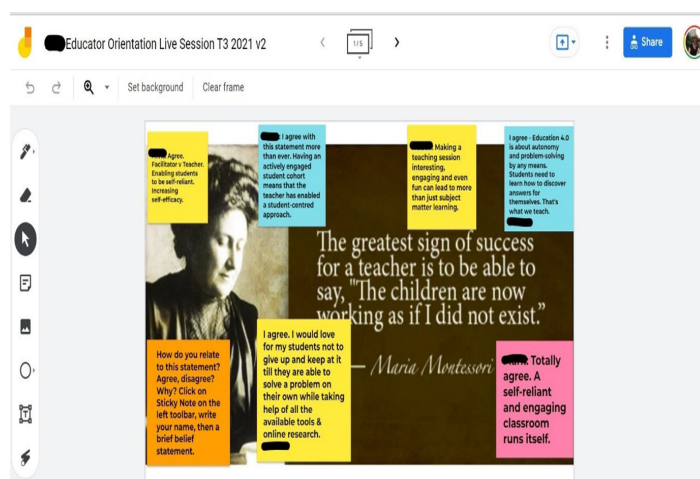

Figure 2: Jamboard page used for reflecting one's teaching philosophy in the author's educator induction session.

Modelling

Modelling is a key aspect of Albert Bandura's Social Learning Theory, which includes the notion that people learn behaviour through observing others and then imitating it themselves (McLeod, 2016). The use of modelling in SoTL programs allows a teacher-trainer to teach educators a new pedagogical device, such as an EdTech tool like Jamboard, whilst simultaneously structuring the session in a way that demonstrates how the educators can use it in their own classrooms. For example, I carefully plan my live pedagogy workshops to ensure that I am demonstrating an EdTech tool in at least three different ways – from basic to more advanced - so that each participant feels confident to attempt at least one method in their next class.

I used modelling in my educator induction session by using Jamboard three ways – teaching the participants what the tool can do, whilst teaching the content related to their induction. For example, the participants shared their reflective belief statements via a sticky note, something they could do with their students at the start of trimester as a litmus test for student motivation. They entered text in response to a quiz question, replicating a content-knowledge-check exit activity at the conclusion of a lesson. They also inserted images or GIFs to share how they were feeling about the new trimester, which can be used with students as a mental health check-in activity to do before assessment due dates. Debelius and Mooney (2020) used modelling in a targeted approach to combat the negative effects of isolation during the first months of pandemic-enforced online learning. Using Jamboard as one component of their holistic SoTL program, they demonstrated what inclusive, online, tech-enhanced learning experiences could be to achieve learning flexibility and community building. Similarly, Ndwambi et al., (2022) wanted to model to educators the Ubuntu principles of respect, sharing, fellowship, and human dignity, using Jamboard to facilitate such collaborative learning experiences. In these two examples, and mine above, modelling the use of Jamboard within SoTL programs is a way to strengthen the learning process of educators in order for them to replicate these learning experiences in their classrooms.
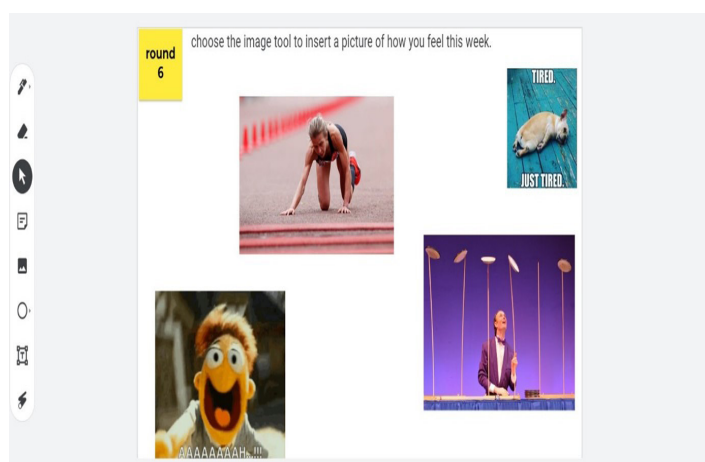
Figure 3: Mood Check-In Jamboard page with inserted images used in the author's educator induction session.

The benefits of using Jamboard in the classroom with your students

Universal Design for Learning

Finally, after the teacher-training has been completed and your educators know how and why to use Jamboard in their classrooms, they can give it a try. Khatri (2021) used Jamboard to facilitate Universal Design for Learning (UDL) principles in a Canadian English for Academic Purposes classroom context. Firstly, they drew on UDL's 'multiple ways of expression', using Jamboard to replace breakout group, peer-peer learning experiences to ensure the lessons weren't solely small-group discourse-based. Secondly, they addressed 'multiple means of engagement' to facilitate student-centred, inclusive learning practices, using Jamboard to promote slower and more thought-out answers that remove the fear of using voice only to contribute to the lesson.

Concept maps

One of UDL's suggested tools for 'multiple ways of expression' is to use a concept map, which is what Pothier (2021) used in the shift from on-campus to online learning, replacing butcher's paper with Jamboard. Potheir's decision to use Jamboard in a UK university library setting was based upon its familiarity to students as a Google product, declaring "I barely needed to explain the steps before each student claimed a board and began working" (2021, p. 2). Interestingly, a Spanish study by Recuero Virto and Blasco López (2020) notes that despite their hypothesis, 'ease of use' may not be a precursor for students' willingness to use EdTech tools such as Jamboard again, rather 'playfulness' was the motivating factor for re-engagement. This is echoed by Sweeney et al.'s (2021) reflection of a virtual anatomy class in Belfast, whose students overwhelmingly reported that their Jamboard practical lessons were the most enjoyable of the module.

Discovery learning

One final reason to use Jamboard is to utilise Discovery Learning. Bruner's Discovery Learning model is a constructivist approach that synthesises the learner's own existing knowledge with that of their new, independently discovered information, which leads to deeper learning through the personal nature of the learning path (Learning Theories in Plain English, 2017). In Australia, I used this model to collate a collection of case studies from a class of post-graduate international students on their most inspirational female leaders. The design of the subject was to add discovery learning to the weekly content so as to bring international case studies into the syllabus. Not only did they learn from their peers, but students learned how to research information on the internet, summarise it, and succinctly write a statement on a Jamboard page. The students filled multiple pages of a Jamboard with their contributions, which led to an empowering whole-group discussion. Not inconsequentially, the relaxed look and feel of Jamboard adds an element of fun that other online tools,

such as a Zoom whiteboard, can't deliver, creating a certain positive vibe to the activity.
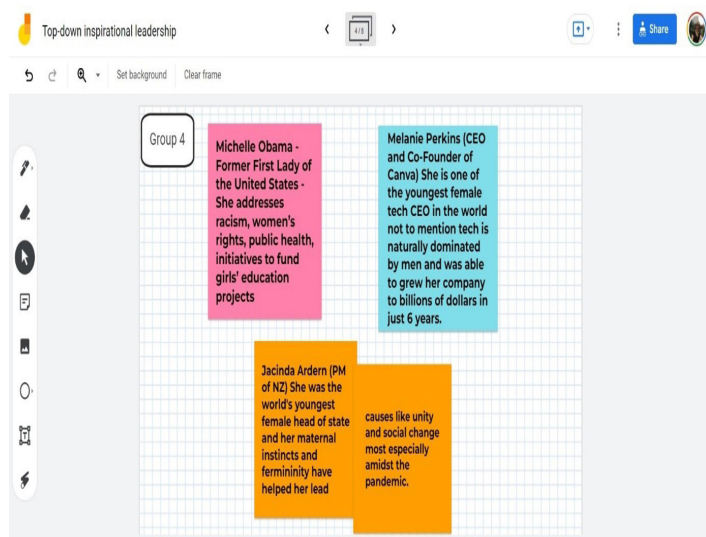

Figure 4: Australian postgraduate students' contribution to a discovery learning activity.

The aim of this review is to inspire other educators to incorporate Google Jamboard into their suite of teaching pedagogies. This will ensure online social constructivism remains a key feature of the online classroom in a post-pandemic world. There are pitfalls to using Jamboard, such as my experience of having Chinese students in offshore learning circumstances not having access to Google products. Also, as with any pedagogical tool, students can get tired of using the one product too often. This is why ensuring that you have a suite of EdTech tools to choose from each teaching period is crucial (see e.g. Stafford, 2021; Yeo, 2019; Yong & Rudolph, 2022). The benefit of Jamboard as one of these options is that it really is simple to use. The lack of features is its asset. When you want to focus on achieving the pedagogies that underpin the case study activities I've discussed, you don't want the complication of technology to hinder your success – Jamboard will certainly reduce your students' cognitive load. So, ensure your SoTL program incorporates the teaching of Jamboard to your educators as a first step towards an EdTech-enriched classroom learning experience. Jamboard will create enjoyment, collaborative learning experiences and diversity in learning expression for both educators and students.

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Experiential learning exercise: Designing a pirate community using the cultural web

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Abstract

The purpose of this experiential learning design article is threefold: firstly, to provide an opportunity for icebreaking or community building using a team-based activity, secondly, to apply Johnson and Scholes' cultural web framework in a performative, open space learning context of the historic pirate culture, and finally, to connect the learning experience to job hunting, specifically helping students assess their fit with potential employers.

This group exercise requires participants to use and integrate a variety of concepts from marketing and strategy, and then subsequently reflect on their performance with an after-action review. The exercise is likely to be most appropriate for advanced undergraduate and master's classes, however, it has also been used successfully for community engagement on a foundation year. It would appear to be particularly useful for professional development, management, leadership, and organisational modules where a lean-in, experiential-oriented pedagogy is deployed.

Keywords: Community building; cultural web; employer cultural fit; experiential learning; group working; icebreaking; performance presentation; pirate code; team building.

Introduction

First show the 'Be More Pirate' YouTube video short from Sam Coniff Allende (2018b) that presents a provocative, alternative perspective to piracy. Then introduce students to the Johnson and Scholes (2011) cultural web model. Share thick pens and large sheets of paper with students whilst briefing them to create their own pirate ship culture (synthesising historic pirate organisation ideas with the cultural web). They are then invited to pitch in plenary their newly created community to attract new recruits, drawn from the wider class audience. The groups are encouraged to use images, music, and other performative elements to project the essence of their community. On completion of each group presentation, new shipmates vote with their feet by physically moving to the dock (tabletops) of their preferred Jolly Roger gang. To debrief, the instructor facilitates an after-action review discussion to elucidate and critically assess the appeal or lack of each of the crews' propositions. In conclusion, it draws links to employability and how applicants might seek to evaluate their own cultural fit with potential employers.

This exercise might be used as a more general ice-breaking, team-building activity on a diverse range of business and management programmes, but also have application in other disciplines that require students to work effectively in groups or teams.

Theoretical foundation

This dynamic learning environment concept draws on the disciplines of marketing, positioning theory and competitor analysis, and strategy in applying Johnson and Scholes' (2011) cultural web alongside the mission, values, and goals (MVG) framework. Pedagogically, it is inspired by Monk et al.'s (2011) open-space learning concept that encourages group collaboration through creative puzzling and the use of more interactive, collaborative movement in the classroom.

Learning objectives

After completing the exercise and reflection, students will be able to:

- Critique their ability (both group and individual) to apply multiple concepts simultaneously whilst working under time pressure

- Design and perform a compelling and distinctive community concept

- Reflect on their pitch and particularly communications skills

- Assess their team's and other competitor groups' outputs, giving feedback

- Reflect on the applicability of the cultural web framework to help assess their own fit with potential employers

Assumed prior learning

From the marketing discipline, ideally, students have covered positioning and basic competitor analysis, and from strategy, students are aware of the missions, values, and goals framework and Johnson and Scholes' cultural web. To prepare effectively before the timetabled session for the shorter version of the workshop, students should be invited to watch the 'Be More Pirate' video on YouTube and familiarise themselves with the cultural web model (both links below). If 90 or 120 minutes are available, this activity can be undertaken at the outset of the in-person session.

Instructions for running the exercise

Ideally, five groups of three to six students should be able to gather standing (or sit if any participants cannot) around a discussion desk or wall space, slightly separated from other groups. Instructors should be prepared to adapt to the environment to make reasonable adjustments for participants with mobility or other special needs. Where possible, arranging or having the tables and chairs moved to the outside of the space, creating a clear, flat central space is perfect.

The following equipment is required to run this exercise:

- Large sheets of paper (A0 or a flip chart pad), with one sheet plus spares for each group to create a symbolically meaningful flag or banner for the pirate community they are designing

- Adhesive (spray glue or sticky tack) to allow pirate flags to be displayed on either the walls or, if unavailable, use tabletops.

- A range of thick, working, marker pens, at least three colour choices per group.

Step by step guidance

Instructors should:

1. **[5 mins]** Remind students of the assumed prior learning (MVG, competitor analysis, positioning, cultural web (see Appendix 3).

2. Discretely ask if anyone has any mobility issues that could require adjustment.

3. Explain that this task affords an opportunity to engage in experiential learning, applying their theoretical knowledge in an unconventional, creative context.

4. Seek to create a safe space and engender trust within the group by emphasising that there is no right answer, no one is a prize-winning artist, and the over-arching goal is to achieve reflective learning.

5. Explain that students should role-play being on board a pirate ship coming into port looking to pitch for new recruits. Pick out some salient highlights from Appendices 1 and 2 if prior engagement with 'Be More Pirate' was limited.

6. Outline the key roles required from each group; graphic designer, narrator/presenter, timekeeper, creatives, crew and [emphasis] a spy or two.

7. **[25 mins]** Explain that the group has two tasks and 25 minutes. Firstly, to draw and populate a cultural web-based summary of their desired Pirate community, and secondly, to create and perform (singing, dancing, acting and other creative styles are encouraged) their own jolly roger flag (or symbols) that represents their distinctive culture, forming the centrepiece of their two-minute (maximum) plenary presentation.

8. Check that everyone has a clear understanding of their instructions.

9. Ask students to now move swiftly into groups of three to six, locating their own working space whilst grabbing two sheets of paper and three marker pens per group.

10. After 12 minutes, instruct groups to stop populating their cultural web, if they have not already, and now focus on creating their jolly roger flag as a symbolically rich banner under which they would be prepared to sail (belong to).

11. After 24 minutes, give groups a one-minute warning to be prepared to share their pirate community concept in strictly two minutes or less.

12. **[10 mins]** With high levels of facilitator energy, invite each of the five groups to make their pitch, moving swiftly between groups. Passover quickly any groups who failed to prepare a presenter and come back to them later, highlighting a clear failure to organise the group effectively.

13. Thank the groups for strong presentations and some interesting ideas, pick out a couple of particularly memorable moments if time permits. Tell students to leave their flags where they are (as a visible point of assembly) and move everyone together into the central space. Theatrically inform the shipmates that their own vessel has been hit by a cannonball and is sinking fast. Then invite students to consider which other community they would like to join by imitating slow 'swimming' safely towards their new flag/ pirate community. (Note: overexuberant flailing arms can be a health and safety issue.) They have just sixty seconds to decide and move. When individuals are taking too much time, sound the "shark attack" alarm to motivate any laggards.

14. **[10 mins]** Invite participants to explain their choices. Summarise general themes by way of a 30-second wrap.

15. **[5 mins]** Invite more individual reflection on the exercise with the provocation: What did you learn?

16. Conclude by connecting this abstract activity to the two-way matching process used by employees and employers during the recruitment process.

17. Thank the crew members for their creative pirating. Arrgh!

Variations

Where more time is available for the activity (a typical 60 min. UK seminar timing has been used here to offer a concentrated format), it is possible to consider the following adaptions:

(a) The preparation activity can be summarised and presented by way of a longer introduction.

(b) A time slot may be allocated prior to the main task to allow the team to gel, by asking the group to design a call sound, signature gesture or move, and name initially. This has been shown to help feed the thematic creativity of the subsequent activities.

(c) Offer additional time (or a reflective assignment) for the separate groups to discuss their performance relative to the competition, highlighting strengths and weaknesses and 'better next time' suggestions for both the design and their implicit team/group processes. Consider integrating employability extension tasks from Appendix 4.

Debriefing

Discussion questions

Students often focussed on familiar media portrayals of pirate stories, especially Cap'n Jack from Pirates of the Caribbean, Captain Hook, and Long John Silver. This can open a discussion that considers how fictional accounts can override historical veracity.

Communities were often seen as: friendly, vegan, vegetarian, zombie, pacifist, non-sea faring, and monsters but NOT pinstriped or board room. Why did this comparison not surface among business students?

Equality/fairness and consideration of the diversity of pirate communities, including gender and race, often come up as issues. What would all-female pirate crews do differently?

Tips for instructors

- Identify at least one strong feedback element for each crew, and then focus on the positives from stronger propositions, looking to identify generalisable, powerful good practices (e.g. competitor analysis, democratic contributions).

- Bring icebreaking energy to the room by dressing as a pirate and/or providing a treasure chest of inspirational props.

- Non-native English speakers can struggle to comprehend the cultural web model quickly, be agile to facilitate understanding here.

- If disruptive students find the playfulness too challenging, offer them the option to sit out the exercise.

- Conclude by celebrating everyone's success.

Find wider curriculum links to other student ideas that typically surfaced:

- Communities defined by what they are *not*.

- Organisational structure (pirate democracy)

- Leadership style (dual, separated leadership roles for checks and balance)

- Perks (life insurance, square meals, alcohol rations)

- Pay and bonus (clear and equitable link between pirate leaders and crew)

- Risk (compensation for injuries)

Conclusion

This creative exercise has been found to be very positively received by a variety of student groups in our business school. Students note that time passes quickly, and they enjoy the temporally pressured challenge they faced. Its practical, team-based focus is creative and entertaining, whilst simultaneously providing students with the opportunity to synthesise and create (high-order educational goals of Bloom's taxonomy) via social learning using a number of theoretical ideas and frameworks in a highly participative exercise. The inbuilt reflectivity is powerful, and linking this to the important topic of careers and finding the right job and organisational fit help to deliver a powerful beyond-university learning payload that is often appreciated.

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Appendices

Appendix 1: Sam Allende Coniff's key insights on pirate culture

Fair play regardless of status or colour was a concept held dear by golden age pirates, many of whom had been treated badly whilst serving in the Royal or Merchant Navy. This included equal access to fresh provisions and liquor.

Dual governance shared between the Quartermaster and Captain to protect against the abuse of power.

Universal suffrage (one-pirate, one-vote) applied to all crew members, an idea that was more than 200 years ahead of its time.

Health care and compensation was provided to pirates who sustained injuries (Allende Coniff, 2018a).

Appendix 2: Pirate code highlights

Lights out curfew at 8 O'clock, later drinking had to take place on open deck.

No gambling or fighting on board the ship. Quarrels were ended on land by pistol and sword, until first blood is drawn. Theft resulted in either marooning or the slitting of nose and ears.

Desertion of ship or workstation in battle was punishable by death or marooning.

Black Beard used powerful branding (e.g. setting light to his beard) to intimidate Spanish galleon ships into submission without a fight (Allende Coniff, 2018a).

Appendix 3: Cultural web template (Johnson and Scholes)
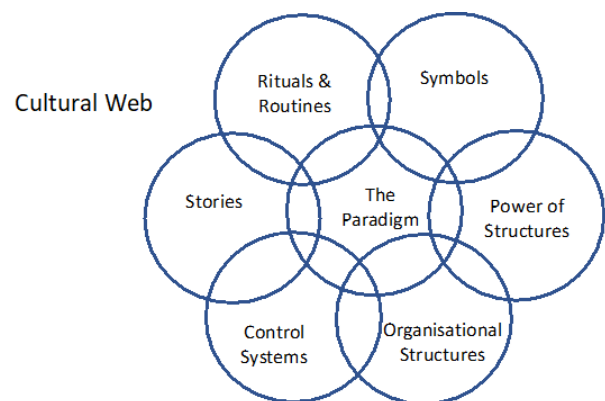
(Johnson, Whittington, Scholes, Angwin, and Regnér, 2011)

Appendix 4: Follow on discussion questions / activities / assignments

1. Critically assess how organisations you know use rituals and routines, stories, and symbols to portray their culture.

2. Create a cultural web for your current employer or university. Critically assess any strengths and weaknesses that are identified from this analysis.

3. From your own work experience, or from wider business reading, identify three memorable organisational stories or myths and discuss how they might influence a new joiner.

4. Envision an ideal working culture by creating your own perfect cultural web. Critically evaluate how three/five aspirational employers match up to this.

5. With reference to the cultural web, in your experience in education and/or the workplace, where have you seen cultural shortcomings? If you were setting up a new team or organisation, what would be your biggest leadership challenges?

6. What techniques do successful leaders use to maintain and enhance an organisational culture?
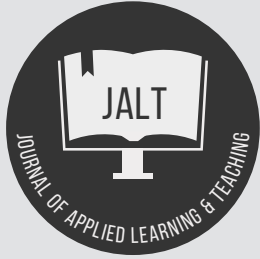
Designing for inclusive and engaged communities

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Abstract

Budding designers participated in the inaugural Codesign Week 2022, organised by the National University of Singapore. This pilot health district design innovation programme aimed to empower them with skills to reimagine through ideation and prototyping and to articulate their value-driven solutions for an inclusive and engaged Queenstown community. Aligned to the reform effort of Singapore's Healthier SG, six teams unravelled barriers to elderly and persons with physical or cognitive impairment to live more active and healthy lives. Students co-created ideas around functional living, disease prevention and healthcare delivery together with residents and stakeholders. From pre-/post-survey responses, there was an increase in students' perceived understanding of inclusive design. Students also felt more confident in critically analysing problems related to persons with reduced cognitive ability and their carers and this resulted in impactful solution ideas enabled by empathetic technology.

Keywords: co-creation; critical inquiry; empathy; design thinking; public health; Singapore.

A design challenge in the health district community

The College of Design and Engineering (CDE) from the National University of Singapore (NUS) organised the first-of-its-kind Codesign Week between 27th June and 1st July, 2022. The goal of the Codesign Week was to ideate solutions enabled by transformative empathetic technology for a healthy, engaged, active and inclusive community of all ages in a pilot health district precinct. The focus of the week was residents' health in the area of functional living, disease prevention and healthcare delivery, and barriers to the elderly living more active and healthy lives. The challenges faced by service providers in supporting this population were discussed extensively via a three-pronged approach.

- Places: How might we design an inclusive and vibrant physical environment in the pilot health district, taking into account the distinct resident population profiles living in the Queenstown community of Singapore, while dealing with their specific needs?

- People: How might we define an engaged citizen and shared identity in places where the elderly feel familiar and comfortable while leveraging technology as an enabler?

- Programmes: How might we promote design programmes led by higher education institutions that encourage co-creation activities amongst students, volunteers, partners, and residents?

Participants consisted of undergraduate students from CDE (NUS), community partner Lion Befrienders, industry partners SmartRx and Huawei, and residents from the Queenstown community in Singapore. Participants were grouped into six teams and were guided through a five-day Design Thinking programme. They were provided with problem statements from a needs analysis conducted by NUS through informal interviews with community partners. With this data, teams were tasked to identify the design gaps and opportunities for Queenstown. They then brainstormed solutions that revolved around the themes of (Theme 1) day-care centre-based support, (Theme 2) community centre initiatives, (Theme 3) community-led ideas, and (Theme 4) inclusive transport. The programme was implemented using physical and virtual settings. Digital tools and communication platforms were utilised, e.g., Zoom consultations and team discussions via breakout rooms, broadcasted announcements and updates via a Telegram channel. The learning objectives of the Codesign week from the perspective of NUS were:

1. To engage residents and care partners to exchange lived experience and care perspectives on formal/informal support and current healthcare challenges.

2. To empower student participants with current design methodology and tools for collaborative team-based learning and stakeholder engagement.

3. To enable students to approach problems from a position of empathy, in order to achieve well-aligned, community-based solutions.

On-site engagement between students and stakeholders from the Queenstown community

Participants gathered at the Lions Befrienders Training Centre on Day 1. It was crucial for the students to come to the actual site where their solutions will be eventually implemented. This inspired them to empathise better with the needs of local residents. Students were first introduced to Singapore's healthcare systems, transformational efforts, and key challenges in moving from hospital to community care, including current community initiatives that support residents. Design-centric approaches that are creative, human-centred, and inclusive were emphasized and reinforced using design thinking methods, and toolkits. Representatives from the institutional (NUS), social (Lion Befrienders) and private sectors (SmartRX and Huawei) shared their perspectives in reimagining healthcare support programmes, interventions and solutions for the community (Figure 1).

Figure 1: "Thinking by perspectives" – Students Healthier SG. Top left is Ms Irina Barbolina (NUS), top right is Ms Natasha Idrus (Lions Befrienders), bottom left is Mr Tong Chen Hao (SmartRx) and bottom right is Ms Genevieve Lee (Huawei).

The Codesign activities involved the use of collaborative methods involving stakeholder interviews (Bunn et al., 2018), observations (Halsall & MacDonald, 2015), and information gathering (Shah & Leeder, 2015). The emphasis is focused on conversations with stakeholders and peer learning through critical inquiry for meaningful engagement (Denzin, 2017) (Figure 2). Teams carried out discussions virtually and adopt active dialogues and reflective practice (Suppiah, 2020). In their conceptual and technical investigations, they

developed the narratives around the proposed solution through value scenarios (Nathan et al., 2008).

Figure 2: The Essence of Codesign" – students having a brainstorming session with senior residents and community care partners at the Lion Befrienders Training Centre on Day 1 of the Codesign week.

Engagement between students and technology partner

There was a sharing session by Huawei on the technology and contextual knowledge of health solutions and systems on Day 2 through a virtual sharing session on cloud solutions and smart healthcare, coordinated by Ms Genevieve Lee, Public Relations Manager, and delivered by Ms Tang Xiaoyue, Cloud Solution Architect from Huawei Singapore. This is designed to inspire teams to select a technological solution that is well-aligned to the needs of the stakeholders and implementable.

Equipping students with design thinking toolkits

To equip participants with a framework to address real-world problems in community health for the design challenge. Students participated in 60-minute crash course sessions about community care and design thinking fundamentals (or "Micro-DT for Health") delivered by Mr. William Siew, Founder of Spark-a-life (Figure 3). They were taught how to adopt and apply design thinking toolkits. The methodologies included Hierarchy of Purpose, Personas, User Journey Mapping, Real-Win-Worth it, Care Circle, See and Shoot, and Restorative Cities design methods and framework. All of the above formed the various stages of the enhanced Ideate-Prototype-Realise design innovation framework (Figure 4) and facilitated the progression from contextualisation to empathy phase.

Preparing for the perfect pitch

On Day 3, students were taught by Associate Professor R Brian Stone (NUS), through a three-hour Service Stage Planning workshop on communication in design. He shared about strategies to reimagine problems and through the use of co-created, low fidelity prototypes, how best to articulate innovative ideas effectively to the target audience (Figure

Figure 3: "Micro-DT for Health" – A sharing on design methods and toolkits by Mr. William Siew (Spark-a-life).
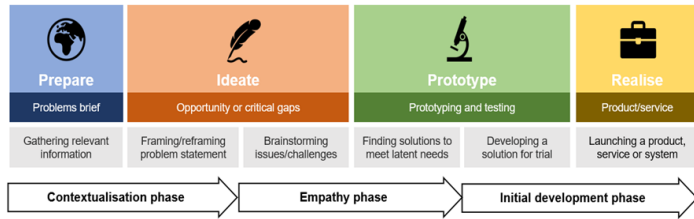

Figure 4: Enhanced Ideate-Prototype-Realise design innovation framework.

5). Consultations with instructors were also an integral part of their planned schedule, as the eventual goal was to seek clarifications and provide them with timely guidance, especially crucial in early-stage ideation. The guided approach helped students to proactively look for ways to innovate value-driven solutions for Queenstown residents, especially those with physical or cognitive impairment.
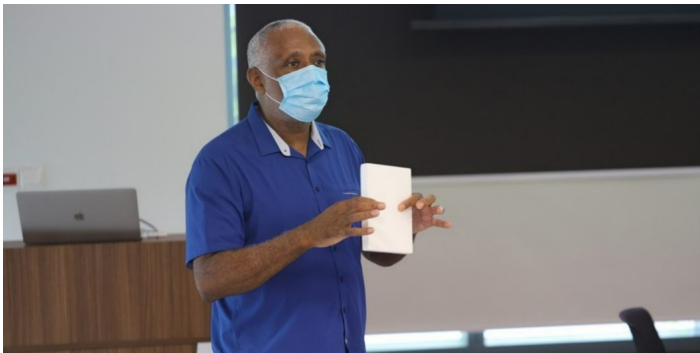
Figure 5: "Service Stage Planning" by Associate Professor R Brian Stone (NUS).

Team deliverables

Over the course of five days, each team was designated a shared folder in Google Drive that contained speakers' slides, design method cards, programme itineraries, and design templates to help them work on their deliverables. Teams were able to apply their knowledge and experience gained from the programme, and successfully completed the three deliverables below within the stipulated time.

1. *Compilation Report*: to capture the salient points of team discussions, secondary research findings and key observations using design templates and toolkits.

2. *Solution Poster*: to highlight the key problem, proposed solution ideas, pre-and post-user journeys, and solution strategy.

3. *Pitch*: to effectively communicate about the proposed solution design, technology selection, and implementation based on evidence.

At the end of the design challenge, the six teams successfully engaged stakeholders to Codesign digital care interventions and solutions that better support the needs of residents. The teams presented their final solutions to a diverse panel of esteemed judges, comprising Prof Dean Ho, Head of Department for Biomedical Engineering, NUS, Ms Nancy Zhang, PR Director of Huawei International, Ms Karen Wee, Executive Director of Lions Befrienders, Mr Bennet Lee, Chief Technologist of Aeras Medical and Dr Clement Zheng, Assistant Professor, NUS. The judging panel was impressed at how well the students were able to design and present innovative solutions in a short period of one week. As a testament to the impact of solutions, some of these ideas were submitted to the Tech4City competition organised by Huawei. The students were also invited back to Lion Befrienders to discuss the implementation of their solutions with their research and development team. Queenstown residents can look forward to quality care solutions that will support their physical, social, and mental well-being, and enable them to lead more active and fulfilling lives. Eventually, two teams with empathetic technology-based solutions that support the lives of the elderly and persons with reduced cognitive ability won first place and runner-up.

Winner and runner-up

Team 6, who emerged as the winner, designed a solution for Theme 4. They interviewed a special guest, who is a member of the elected board of Alzheimer's Disease International, Ms Emily Ong, and she shared with them firsthand her invaluable knowledge and insights about advocating for better transportation systems for persons with reduced cognitive ability, e.g., dementia. With the opportunity to interact with residents and key stakeholders, the team was inspired to research more about this topic. They found that there is a total of 388 reported cases of seniors with dementia who went missing while using public transport in Singapore since 2018 (Figure 6). They ideated an interactive gamified mobile app solution to enhance wayfinding in integrated transport hubs, MRT stations, and bus interchanges through navigation with audio/visual cues.

Team 5 emerged as the runner-up and worked on designing a solution for Theme 3. They interviewed Spark-a-life founder and Lions Befrienders' Assistant Centre Manager to better understand ways to drive community-led ideas. Through their interactions with residents, the team was made aware of the challenge of isolated seniors or seniors living

alone, or residents who are leading less active/sedentary lifestyles. They came up with a problem statement and designed a solution that empowers residents to take charge of their health, by choosing to step outside of their house to engage with the community through physical activities, social engagement, meaningful conversations, and health screening/education (Figure 7). Their proposed solution aims to bring back the "kampong spirit" where neighbours keep a lookout for one another's well-being (kampung is the Malay word for 'village'; in Singapore, the kampong (or kampung) spirit refers to a sense of community and solidarity).
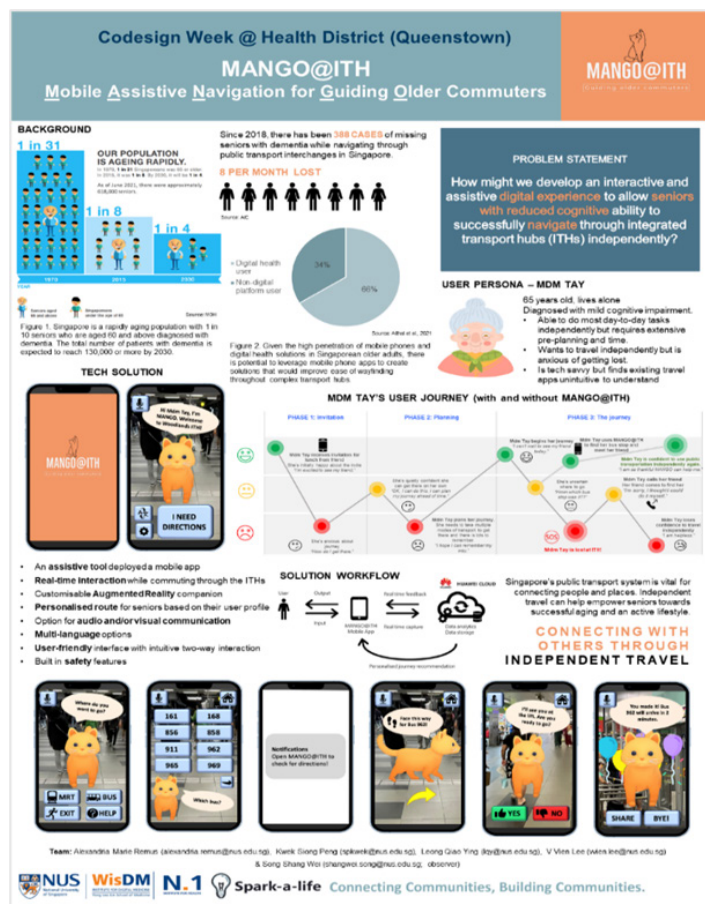
Figure 6: The solution re-imagines wayfinding at integrated transport hubs through a directional orientation-based mobile app with a digital animal avatar.

Observations, reflections and feedback

We observed active ownership by teams throughout the five days. The interdisciplinary knowledge and design expertise of instructors, together with the diverse backgrounds of different stakeholders, added to the value of discussions across physical and online engagements. Although there were some language barriers, it did not stop the senior residents from contributing. They were keen and candid and shared their opinions of current initiatives and innovations during their engagement on Day 1. Remarkably, they also showed up for the pitch to give the students support on Day 5. They tried to understand and were curious about the outcome. The delivery of a highly compact and structured programme saw positive post-event feedback from students. Feedback in the form of a questionnaire revealed that the students have learned about:
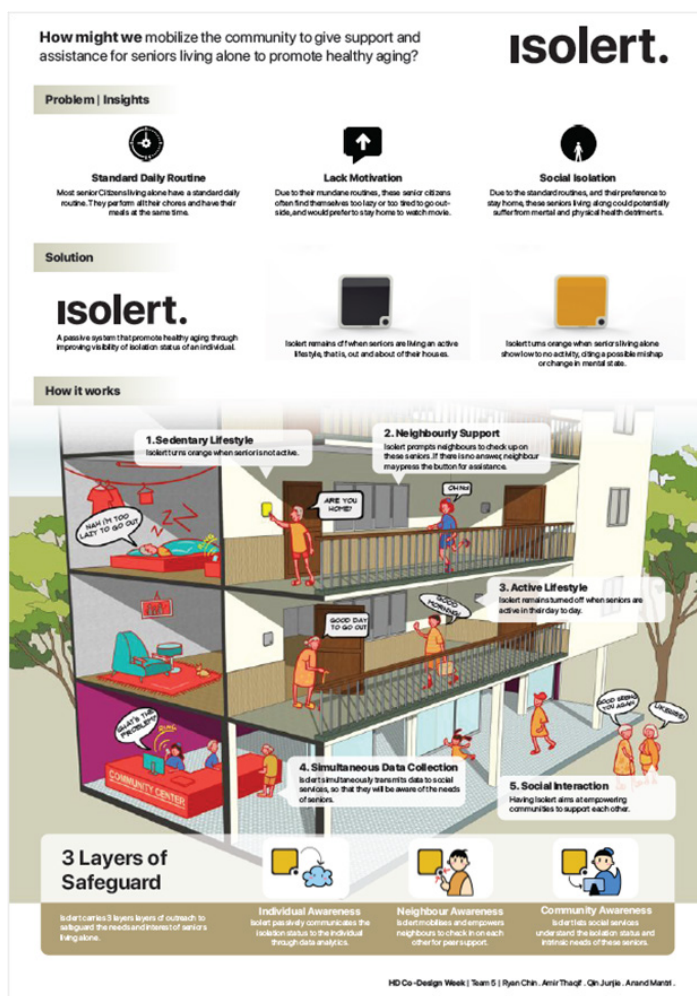
Figure 7: The solution that re-imagines community-led ideas through a home-alert public health system tapping on the "kampong spirit" of neighbourly involvement.

- *Inclusive design*: To use design methodology to "truly care [for] the target audience and involve them in the designing process" when co-creating solutions.

- *Community care*: To be part of "a community that cares about the well-being of their neighbours and friends" through social interactions and meaningful engagements.

- *Empathetic technology*: To become "empathetic to others who are part of the same community" through design, using technology as an enabler.

Students were encouraged to think outside the box, and they also made new friends with common social interests after completing this design challenge. They expressed that they hoped that they were given a longer time to develop their technological solutions for implementation. Other feedback on the Codesign week included:

- "It was a great learning experience, somehow all the teams made it out alive."

- "It helped us to understand the situation beyond what we initially thought."

- "It helped us think of other stakeholders we could leverage on."

- "It taught us a way to ensure the proposed idea is in line with key city archetypes."

- "It provided us with a toolkit that [is] important to jumpstart discussions, and also helps as prompts that open up more discussion points."

From the analysis of their responses in the pre-/post-programme surveys, participants' score of their (1) perceived understanding and confidence on inclusive design increased after the programme (Figure 8), (2) perception and confidence to deal with problems related to people with reduced cognitive ability and their carers improved significantly (Figure 9).
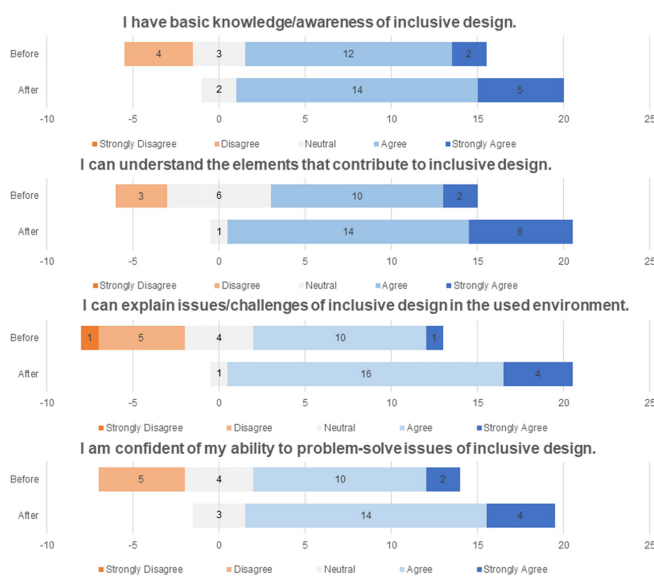
Figure 8: Participants' perceived understanding and confidence on inclusive design after the five-day hybrid programme (n=21).

In essence, the success factors of the Codesign Week are summarised below.

1. Empathy was emphasised through students' engagement with senior residents and community partners, which reinforced active learning through innovation by design, by looking through the lens of designers and stakeholders throughout the design process.

2. Daily students-instructor consultations allowed teams to learn efficiently and immediately seek feedback on the ideation process, especially when teams were reframing their problem statements and deciding on their final proposed solutions.

3. The use of a virtual shared folder on Google Drive and Telegram enabled teams to access, exchange, upload and share information openly and efficiently.
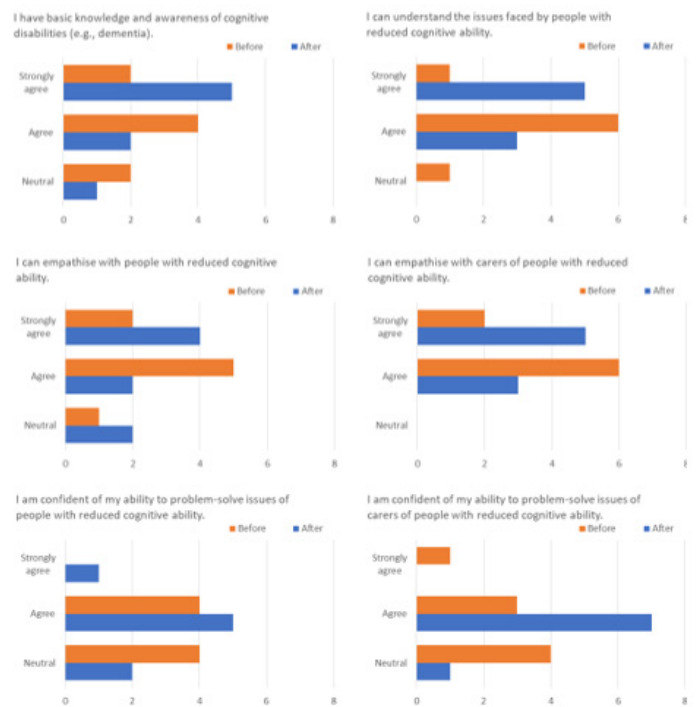
Figure 9: Participants' perception and confidence to deal with problems/issues related to people with reduced cognitive ability and their carers (n=8).

4. Instant messaging reminders helped students stay on track with key items for deliverables, including design activities and progress report submission on a daily basis.

5. The learning environment provided a real-world experience where participants who come from different fields and personal experiences are expected to collaborate through working with differences in opinions, ideas, and desires, which is an important aspect of managing complexities in codesign.

The students' engagement with senior residents face-to-face at Lions Befrienders Training Centre enabled deeper connections with a human touch, fulfilling "people" and "place" and allowing them to pose questions right away to community partners about potential technology solutions directly.

Conclusion

Coordinating discussions and collaborations amongst stakeholders requires thought leadership, where organisers need to be clear in setting the goal of achieving desirable design outcomes with the university's student participants. This planning process included the preparation of a fun and intensive structured programme that focused on active learning with empathy. A well-thought-out programme flow involved a combination of key planning parameters, such as programme requirements and stakeholder identifications by the planning team. Participants were able to interact directly with potential stakeholders to seek input, exchange

information, share opinions and ideas, and ideate with different perspectives. In five days, the Codesign Week provided a good learning opportunity and a conducive environment where budding designers were supported using toolkits to increase their level of empathy and critical inquiry. Through instructor-led sessions and sharing by residents and community partners, the students' knowledge, understanding and confidence in designing for inclusivity and community care increased after the programme. These findings were gathered through the observed impact tabulated from their responses in the pre-/post-programme survey and feedback form. Participants were active and motivated because they were guided through a thorough process that required them to document their learning journey and peer learning. This hybrid programme allowed a flexible learning environment through co-creation, and the planning committee observed their interests in inclusive design and community innovations flourish. Some students even posted about their learning journey on LinkedIn.

Acknowledgement

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Book Review. Bennet, D., Bennet, A., & Turner, R. (2022). Unleashing the human mind. A consilience approach to managing self. MQI Press.

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Unleashing the human mind is an exceptional book on the relationship between life and identity, what it means to be human, and learning. The book takes readers on a deep and wide exploration of how learning is an essential element of who we are and how we engage with the world. Its purpose is to elevate us to be able to see the opportunity to move humanity into a new golden age. Central characters in this book, the "mind-brain" and "self", are described to highlight how learning is far more than just an academic endeavour. The authors draw on a broad range of disciplines, including neuroscience, emotional intelligence, experiential learning, management, knowledge, critical thinking, complex adaptive systems, sensemaking, decision-making and more, to describe a comprehensive approach to self-development. The interdisciplinary approach they call the Intelligent Complex Adaptive Learning System (ICALS) enables learners to "manage SELF" across physical, mental, emotional, and spiritual dimensions.

The term "unleashing" is insightful because it highlights that our mind can be the source of holding us back (past patterns), and yet opening it up is the key to developing yourself for the future. Understanding one's self, who you are, why you arrived here and whom you want to become are important foundations of preparing yourself for the future. *Unleashing the human mind* takes us on a deep and broad developmental journey, starting with understanding what it means to be human through to how to best prepare for new beginnings in an ever-changing world. Along the way, we explore chapters on environmental currency, contemplating the future, a new theory of learning, thoughts and thinking, SELF as the ground of learning, heart-mind entrainment, extended reach, the spiritual nature of the expanded human, the gift of humility and looking from the inside out. Each chapter takes us to a higher level of awareness, capability, and state of being, enabling richer engagement with our complex world.

The foundation of this growth journey is the Intelligent Complex Adaptive Learning System (ICALS), shown in Figure 1. ICALS builds on aspects of key cognitive parameters identified in the work of Kolb, Dewey, Lewin, Piaget and Zull, environmental influences (both human and physical), and the power of the self-conscious mind to learn through developing knowledge of meta-learning. The five key modes of learning and developing self through ICALS are:

Concrete Experience (grasping through apprehension), with sub-elements: sensing, feeling, awareness, attention, and intuition.

Reflective Observation (transformation via intention), with sub-elements: understanding, meaning, truth and how things happen, intuition, integration, and looking for unity.

Abstract Conceptualization (grasping via comprehension). with sub-elements: concepts, ideas, logic, problem-solving, creativity, building models and theories, the anticipation of the outcomes of actions, control, rigour, and discipline.

Active Experimentation (transformation via extension), with sub-elements: act on the environment, focus attention, object-based logic, heightened boundary perception, and sensory feedback to the brain.

Social Engagement (grasping through direct comprehension; transformation via association). Social support sub-elements include open mind, risk-taking, willingness to listen and learn, reducing stress and fear, creating resonance with people and ideas, and contributing to the evolution and sculpting of the brain. Social interaction sub-elements include accelerating learning and creativity, enhancing understanding, meaning, truth and how things work, developing a shared language, and supporting the use and understanding of concepts, metaphors, anecdotes and stories.

This approach to developing SELF provides a comprehensive foundation for becoming the best version of you (Figure 2). It opens your mind to consciously choose as you become more aware of the many possibilities that life offers. Thirteen core areas of neuroscience research findings weave their way throughout the text, supporting the success factors and skill sets needed for the complex adaptive systems that we are to live and thrive in the changing, uncertain, and complex world of today and tomorrow. These areas include the unconscious, memory, emotions, stress, creativity, mirror neurons, anticipating the future, social support, social interaction, epigenetics, plasticity, exercise and
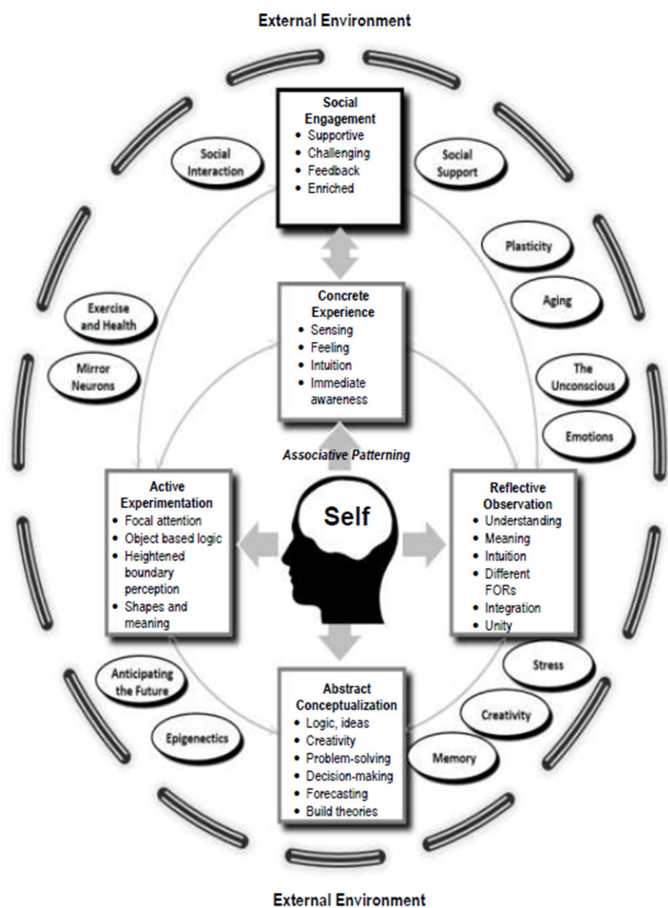
Figure 1. ICALS Framework (Bennet, Bennet and Turner 2022, p vi).

Figure 2. Factors influencing development of SELF (Bennet, Bennet and Turner 2022, p 76).

health, and ageing. As these learnings unleash our minds, it becomes clear that the solutions and possibilities of life are found *within* ourselves by ourselves through the power of learning. As the internationally-renowned physicist Dr. Florin Gaiseanu voices in the Foreword: "It is the mastery of the authors of this book to open the reader's mind and soul, thus offering the opportunity for the content of this live transmission to be discovered and interpreted in the most appropriate way by each reader ... only the reader's desire is needed to let him/her self be seduced by this wealth of wisdom, generously placed at the reader's disposal."

The afterword brings key insights into a simplified structure showing the interdisciplinary nature of rich learning, the ICALS Consilience Framework. The visual embeds ICALS as the centre of four constructs—consilience, complex adaptive systems, epistemology and constructivism—proposing this as a new foundation for learning going forward. *Unleashing the human mind* offers far more than can be expressed in this short review. It is a tome that you will benefit from referring to regularly as you proceed on the strategic planning of your
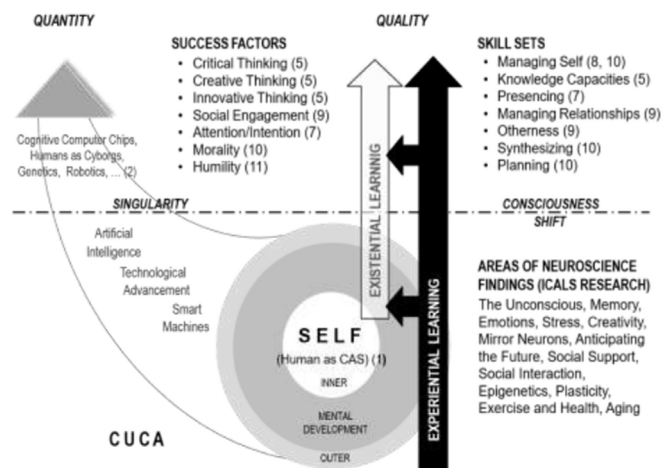
future possibilities. The book is 421 pages, including eight appendices, a comprehensive subject index, 23 figures, 14 practical tools, 796 endnotes, and 560 references. The book is available as a free ebook and in a hard-cover print version. *Unleashing the human mind* is the most comprehensive and enlightening book I have read on learning for the future. Elevating experiential learning to the existential level, it reinforces the social and spiritual elements of our personal and professional journeys of "becoming" who we can be. Once we acknowledge that being human is a constant experience of learning for adaptability, we can comprehend why all the factors discussed in this book are interdependently influencing our success in learning and, therefore, in leadership and in life. The authors explain how seemingly different disciplines and philosophies are inherently connected in advanced learning, including thinking, beliefs, feelings, knowledge, co-creation, spirituality, and a deep conscious awareness of SELF. This book offers you the opportunity to expand your mind and motivate you to learn in ways you perhaps never realised are possible (should you be prepared to invest in applying the shared insights). As the authors state, in learning and life, "you are a verb, not a noun"!

Book Review. Oakley, B., Rogowsky, B., & Sejnowski, T. J. (2021). Uncommon sense teaching: Practical insights in brain science to help students learn. Penguin.

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Neuroscientists have made enormous strides in understanding the human brain and how humans learn. However, this understanding has had little impact on most classrooms where much learning and teaching occurs. *Uncommon sense teaching* is a book which makes neuroscience research applicable and practical for the modern-day classroom. Teachers, parents, curriculum developers, policymakers and anyone interested in improving education will find the insights from this book most useful and relevant. Drawing on research findings and the authors' combined decades of experience in the classroom, *Uncommon sense teaching* provides education practitioners with the essential knowledge and tools to improve their teaching practice, whether they are experienced professionals or simply parents hoping to offer extra support for their children's education.

In *Uncommon sense teaching*, the authors discuss and apply concepts in neuroscience research to explain why some teaching approaches are particularly effective and account for the teaching approaches suggested in each chapter. Although the pedagogical approaches discussed may be familiar to education practitioners, the value of the insights shared lies in the manner the authors relate the science of how our brains work with learning (Holland, 2022). The authors also underlie practical strategies suggested in each chapter with the recent research done in neuroscience and present it in a manner that practitioners at any level can adopt to harness the strengths and qualities of the human brain to facilitate learning.

In the first chapter, the authors highlighted the core role of building long-term memory and how students are tricked into thinking that they are learning. This is followed by a discussion of teaching inclusively by considering the function of the working memory in the second chapter. The third chapter explores the function of the declarative pathways in the brain to facilitate learning and improve student understanding. In the fourth chapter, the author addresses the challenges faced by students who procrastinate, particularly when completing challenging tasks and when preparing for exams. As such, the author suggests that one way to avoid nefarious multitasking and last-minute work is to apply the Pomodoro technique, including specifying

the criterion for the task and introducing a deadline. This technique suggests that students put away distractions, avoid challenges, and focus their attention only on an important task for a specific period of time before having a short break (Kreider et al., 2019). The next chapter explores the underlying factors to explain why some students acquire some skills much faster and easier than others. The authors explained that the *neuronal recycling hypothesis* developed by neuroscientist Stanislas Dehaene is largely responsible for this evolutionary process.

In Chapter 6, the authors explained the important functions of using both the declarative and procedural memory pathways to help students acquire and apply knowledge learnt in the classroom effectively. Chapter 7 highlights the habit-forming power of procedures. The authors explained how the power of procedural memory, where routines foster positive habits, helps lay the foundation for a productive classroom climate. The next chapter builds on this and discusses the role of stress in learning and explores the potential of socio-emotional learning to develop self-awareness, self-management, relationship skills, and responsible decision-making, all vital skills in the working world. The authors propose that teachers adopt collaborative learning approaches to build these social skills and mitigate stress levels in the classroom, particularly when managing challenging projects and exam preparation. Chapter 9, however, breaks down the challenges of online teaching and suggests several brain-related approaches to create a sound foundation for online teaching. The last chapter highlights the critical role of infusing neuroscience-related pedagogical approaches into lesson plans to shape and structure lessons over time to facilitate the learning process.

One engaging aspect of the book is the seamless combination of neuroscience research with personal anecdotes from years of teaching experience. Some of the complex concepts are illustrated and explained through diagrams and a cartoon of an octopus and its roving tentacles. To conclude, some suggestions made in the book that many practitioners would find helpful and relevant to their own practice are:

- Use the recall and retrieval method to help students prepare for assessments better.

- Use 'brain breaks' in between the teaching of core concepts to allow for reflection time and facilitate the consolidation process.

- Encourage peer teaching and higher-order tasks for higher-ability students.

- Introduce a reflection or a one-minute summary activity at the end of each lesson.

- Introduce frequent formative assessment checks to monitor student progress and guide lesson development.

- Encourage active learning through discussions and retrieval exercises.

- Use collaborative learning in classrooms to aid knowledge creation and social learning.

- Teach procedures and routines to foster positive classroom habits at the start of the term and establish effective classroom management.

- Use 'effective hooks' to start lessons by connecting critical content to what students already know.

- Shape and structure lesson plans with the final objective in mind using the approaches suggested with the plan employed as a guide.

Although the book does not address how the strategies introduced may produce varied effects in different cultural contexts, the chapters in this book provide a wealth of information and guidance on developing and improving pedagogical practices in the classroom and revolutionising the way education practitioners consider their approaches using cutting-edge neuroscientific research. Readers interested in this topic should also consider reading *Why we do what we do: Understanding our brain to get the best out of ourselves* and others by Helena Boschi (2020) – a book replete with concrete and illustrative examples to unravel and clarify the complex mechanisms of the human brain.

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Book Review. Hernandez, K.-A. C., Chang, H., & Bilgen, W. A. (2022). Transformative autoethnography for practitioners – change processes and practices for individuals and groups. Stylus.

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Transformative autoethnography for practitioners – change processes and practices for individuals and groups is one of the latest books within the field of autoethnography. This 2022 contribution was written by experienced autoethnographers Kathy-Anne C. Hernandez, Heewon Chang, and Wendy A. Bilgen. The authors have two aims: the first is to convince the reader that the transformation of the researcher (and those affected by their research) can be the intentional goal of autoethnographic research – transformation can be more than a positive by-product of the methodology. Secondly, when transformation is the goal, it can be applied to make tangible changes to practice. The latter is demonstrated to the reader through their Transformative Autoethnography Model (TAM). Readers of this book will find it an informative and practical guide to applying autoethnographic research to practice. This book is both an ethical call for all qualitative researchers to apply their research to practice for the common good and a practical guide for them to do so.

The authors, Kathy-Anne C. Hernandez, Heewon Chang, and Wendy A. Bilgen, collectively have extensive experience in autoethnographic research. Hailing from research backgrounds in leadership studies, multicultural leadership education, and educational psychology, the authors' current focus is to answer that crucial research question of 'so what?'. In other words, the research is done; now, how can it be useful? This review outlines each chapter and provides insights that may inspire the reader to take up this book themselves.

The purpose of the book

The authors have two aims. The first is to convince the reader that the goal of autoethnographic research can be transformation rather than personal transformation being seen as a mere positive by-product of the researcher's reflective process. This transformation can be achieved by the researcher or others affected by the researcher's autoethnographic product, but in both cases, the authors argue, transformation can be intentional. The second aim is that the authors' model, TAM, be adopted by readers wishing to undergo autoethnographic research, which through intentional transformation, helps to solve real-world problems for practitioners. The book's layout flows clearly through these two aims, scaffolding the reader through a learning journey of theory to practice: beginning with the convincing of the usefulness of TAM, followed by the instructions for applying it.

The authors collaborated largely throughout the global pandemic years, beginning in 2019, with the book being published in 2022 by Stylus and Myers Education Press. The authors point out that it is designed to be a useful, practicable book, written with the reader's needs in mind – the reader being a potential autoethnographic researcher. To be transparent, I am the target audience for the book. At only 167 pages, I find the book to be a highly accessible and practical guide for anyone interested in solving real-world problems through deep, reflective inquiry. For those new to autoethnography, they too may find it useful as an entry point to this qualitative field of research. For those researchers who favour quantitative rigour, this book is not designed to draw you over to this qualitative method of inquiry. However, perhaps the illustrative case studies throughout the book may convince you of the need for its respected inclusion in the healthy range of scientific inquiry available to the academe.

There is a strong multicultural element to the book that most readers can connect to. Accordingly, the strong theme that emerges is the importance of individual stories to the collective research world. For example, there are interwoven personal stories of the three authors that punctuate the book in each chapter. These stories reflect a strong advocacy for storytelling in qualitative research that the authors argue rights the wrongs of (historical?) colonial power structures within the academe that have silenced minority voices. For those interested in the art or healing potential of storytelling, this book will provide interesting insights.

The theoretical first half

In chapter one, the authors introduce the reader to the research method of autoethnography. They argue that autoethnography is an effective inquiry method for change-making, encompassing both individual and collaborative

variations that leads researchers through a self-reflective journey of transformation. They outline six of the method's key characteristics on page 22:

1. It "pursues an in-depth understanding of sociocultural phenomena as an inquiry method".

2. It "captures personal experiences through the power of storying".

3. It "utilizes auto-ethnographers' personal experiences as primary data".

4. It "offers the option of taking the interrogation individually or collaboratively".

5. It "engages the auto-ethnographic process for both research and praxis purposes".

6. It "results in diverse forms of auto-ethnographic products".

This explanation of the research method's key characteristics serves to orient a reader who is unfamiliar with this field of inquiry. On its own, without the later discussion on TAM, it may not convince a sceptic of autoethnography that there is more to the methodology than simply diarising a personal story. If such readers exist, the following book chapters will present stronger arguments for its scientific rigour.

Chapter two delves further into transformation. The authors argue that individual autoethnographic research reaches a scientific conclusion that is true for the author but that, in doing so, seeks to conclude a more generalised truth for the audience, transforming both parties. The authors state that through scaffolded processes, autoethnography as an inquiry process can heal, shape relationships, and dismantle harmful societal power structures. For example, the chapter briefly mentions a medical case involving gender dysphoria, where the autoethnographic researcher offers valuable data from a personalised patient experience navigating an impersonal medical system. These data can reveal insights into patient care and suffering that has the capacity to transform how professionals offer medical care and how other such patients navigate the same experience.

The chapter's overarching point is that "our stories are data with souls" (p. 34). This paragraphed quote by Brene Brown is used to exemplify how a single story in research can be a powerful voice for others. This chapter is the first instance where the reader can see stirring examples of how autoethnography can give a crucial voice to individuals who may ordinarily be seen in other types of research as mere numbers. One compelling section of the chapter discusses "Emancipating and decolonizing" (p. 45) and how autoethnographic research gives voice to historically marginalised groups within and outside of the academe. By providing examples of where research narratives written about indigenous peoples by a colonial white academe are now being authentically re-written by indigenous autoethnographers, readers are shown the power of a single story to decolonise existing bodies of knowledge. For those

interested in areas such as diversity, equity, and inclusion and the critical examination of power structures, this chapter is intriguing.

Chapter three discusses the complexities of collaborative autoethnography (CAE). The authors' goal is to explain how CAE has a unique transformative capacity at the micro and macro levels. It helpfully defines CAE but goes further in addressing the duality challenges of a CAE researcher: that of being at once an individual researcher and participant, and collaborative researcher and participant . For example, the authors explain that CAE members are part of a "dynamic reflexive process as the researchers move back and forth from the roles of researcher and participant" (p. 57), serving as a helpful illustration of CAE's distinct operationalisation. Expanding on the notion of inclusivity touched upon in chapter two, multivocality is a feature of chapter three – specifically, who gets their voices heard within traditional data collection methodologies. This chapter resonated with me, as I personally struggle with a data collection challenge in my workplace. A mostly quantitative student survey dataset with a representative sample is the primary method for making positive changes within most higher education institutions. However, the challenge is found when individual student experiences are not represented in this data set, through, for example, fear of identification within the survey process or technological challenges in completing the survey. This chapter helped strengthen my personal belief that individual, qualitatively sourced voices must be included in a wider quantitative data set for authentic and representative conclusions to be made. In doing so, the bias involved in reducing "data to the most frequent or prevalent observations" (p. 61) can be reduced in favour of a holistic and inclusive data set.

For readers who are passionate about social-constructivist pedagogies, chapter three also includes Mezirow's transformative learning theory. The chapter discusses the potential of CAE to harness the benefits of learning with others to reach individual and collective transformation "through critical dialogic engagement" (p. 63). This is highlighted through examples of where CAE inquirers possess different cultural, gender, philosophical, and demographic elements that enrich, challenge and shape the data-gathering process. For advocates of social constructivism and transformative learning, the linking of CAE to these theories supports the authors' assertion that CAE can be transformative for all involved.

The practical second half

Chapters one to three comprise the theoretical half of the book, and as promised, chapters four to six are dedicated to showing how to conduct the authors' Transformative Autoethnography Model (TAM). In other words, we've learned the why, and now we're learning the how. The authors point out that the intentional design of this flow is to allow readers to directly access either the theory or the practical parts of the book as required.

Chapter four dives in-depth into TAM, orienting the reader to both the skills they will need to conduct TAM as well as the model's stages to work through. The five key research processes required of the researcher are of noticing transformative-worthy conflicts, critically assessing them, grappling with this information, applying new practices, and evaluating them for further action. The authors also explain how self-reflexivity is the essential underpinning skill to using TAM, highlighting the power of understanding the relationships of self to others within certain sociocultural contexts.

Aside from the researcher's required skills, the model itself is explained in chapter four as possessing two distinct parts – the transformative learning cycle (TLC) and the transformative application cycle (TAC). Within the TLC, the researcher progresses through three phases of activities: preparation, exploration, and discovery. The discovery phase directly informs the second cycle, TAC, of planning, implementing, and evaluating. The instructions for using TLC and TAC are supported by helpful diagrams that clarify both phases' interconnectedness.

There are two notable inclusions to chapter four. Firstly, TAM's similarities to the action research cycle are acknowledged, and differences are explained. The authors' note that action research begins from a systems-thinking standpoint, solving closed-ended narrow problems. In contrast, TAM is concerned with the human element – open-ended transformative goals that begin not with a system but with the personal context of the autoethnographer. Accordingly, the warnings on the pitfalls of using TAM are a valuable inclusion for the first-time autoethnographer. For example, the authors reveal five distinct traps to avoid, highlighting the precarious subtleties between storytelling and rigorous research.

Chapters five and six are dedicated to case study scenarios of applying TAM for both individual and collaborative ethnography and are go-to chapters for an in-depth exploration of TAM in use. For example, three fictitious case study researchers are used in Chapter five to exemplify an individual autoethnographer's reasons for, process, and outcome of individual autoethnography – an adult adoptee, a border-control officer, and a community mental health clinician. Chapter six uses the case studies of a team of three US school district liaison offices, a leadership team of a women's leadership organisation, and a team of authors and publishers. As mentioned earlier, the diversity within the case studies and storytelling throughout the book make it likely that any reader will find at least one example to connect with, contextualising the information for each reader. Whilst I appreciate these created best practice examples, I would have liked at least one real case study, perhaps one that shows what can go wrong so that all experiences can be learned from.

The concluding story

Storytelling is skillfully woven through each chapter of this book. It begins with the authors' stories, returns in each chapter to personalise the topic, and it concludes the book within chapter seven. Chapter seven delves further into each author's career biographies and motivations for writing the book. Doing so has created a meta-writing device that exemplifies the authors' belief that the "personal story is at the heart of autoethnographic inquiry' (p. 161). A welcome inclusion to chapter seven is a short commentary on the future of ethnographic research, which raises exciting questions about how emerging technologies and storytelling may affect transformative autoethnography.

There have been other works published in the past two years on autoethnography that deal with similar themes within this book. For example, the deconstructing of colonial power structures within the research academe through storytelling as primary research (see Bartram Scott, 2022; Throne, 2021). Another theme is the 'how to guide' to autoethnography (see Herrmann, 2021). Of course, published ethnographic research itself is available to learn from (see Alhadad et al., 2021), especially ones that focus on transformation (see Medero, 2022). However, the authors' claim to be filling a gap in the market, stating that the evolution from autoethnography's entry into the qualitative research field in the 1970s to now does not provide the specific resource they have written. There is no other guide to transformative autoethnography research that a) focuses on transformation as the intended goal of the research, b) has an explicit aim to create change in practice, and c) provides a useful model to follow.

As someone new to the method of autoethnography, the authors have convinced me of the power of transformative autoethnography to create change. Researchers can use deep, critical analysis and a solid process model to turn traditionally unheard personal stories into valuable insights. Crucially, for an equitable academe and wider society, those insights can then be shared with others to intentionally transform practice for the greater good. For any researcher interested in autoethnographic inquiry, this book will both be an insightful and practical guide.

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Book Review. Yako L. (2021). Bullets in envelopes: Iraqi academics in exile. Pluto Press.

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Wars not only kill people in trenches but also erase nations' existence by destroying educational gains. Louis Yako's book *Bullets in envelopes: Iraqi academics in exile*, which was published in 2021, is a very critical book showing the enormous impact of the invasion of Iraq by the U.S. on higher education and academics. The destruction and restructuring of Iraqi academia can be seen as a political strategy to shape society, and Yako's book reveals this picture clearly and vividly.

Louis Yako is an independent Iraqi-American anthropologist, writer, poet and journalist. *Bullets in envelopes: Iraqi academics in exile* is a significant book as it makes cultural, political and epistemic contributions to our understanding of the problems in the academia of war-torn countries.

Bullets in envelopes: Iraqi academics in exile has two parts consisting of seven chapters. It has a rich bibliography section along with notes and index sections at the end. Yako begins the book with a preface sharing his views about why he chose Iraqi academics as the population, describing them as "near and dear" to his heart. In the preface section, Yako also gives insights about his personal experiences in a decade of exile and poignantly shares what he felt in the airport when he came back to Iraq in 2015. His immediate family members were not there to welcome him as they had all left Iraq, and he felt rather alienated. He furthermore notes that the post-US occupation Iraq can be named as "new Iraq", wherein language acted as a metonym in power configurations.

Bullets in envelopes: Iraqi academics in exile has a rich and encompassing introduction titled "The story of this story" revealing key features of the book. This section entails how the author's doctoral study turned into this book. The central questions, along with the contributions of the book, are presented in this section. In addition, important details about the research design and fieldwork have been provided. The introduction section also includes a chapter-by-chapter summary.

Chapter 1, titled "A nuanced understanding of Iraq during the Ba'ath Era", covers the dynamics of the Ba'ath period. The Ba'ath Party was founded in 1943 in Syria. It has branches in many Middle Eastern countries and was the ruling party in Iraq from 1968 to 2003. The Ba'ath Party had a highly authoritarian structure advocating the formation of a single Arab socialist nation. While covering the dynamics of the Ba'ath period, this chapter focuses on the situation in Iraq before the occupation. To this aim, firstly, a brief overview of Iraq's history has been presented. The history of Iraq from the Ottoman times up to the times of the discovery of oil, along with Britain's invasion in 1920, has been addressed. In addition, the seizure of power by the Ba'ath regime in 1968 and its policies have been evaluated. One of the points underlined in Chapter 1 is the objective of the Ba'ath regime to create 'a new Iraqi man'. The author cites various scholars' works defending this point. The author defines the cultural and scholarly production in these years as "state-sponsored" by referring to Eric Davis' 2005 book titled *Memories of state: Politics, history, and collective identity in modern Iraq* (p. 21). The author ends the first chapter by referring to an interview he conducted with an Iraqi academic. The academic, in a tone that accused UN sanctions and international society, said the following: "They thought that a hungry nation would receive the invasion with cheering and flowers!"

Chapter 2 is titled "The Ba'ath Era: Iraqi academics looking back", and it has four parts. The first part deals with the lives of the currently exiled academics under Ba'ath rule. The author focuses on the stories of communist Iraqi academics and notes that the majority of these academics were fiercely opposed to Ba'ath rule. The second part deals with the issues of curriculum, fellowships and freedom of expression. The author refers to his discussions with Iraqi academics, one of whom is Sameer. According to Sameer, many academics were invested in countering the Western domination of knowledge production, hence the choices made in revising the curriculum (p. 36). The third part of Chapter 2 addresses women academics under the Ba'ath regime. Sura, one of the female academics cited in this part, says that the women under Ba'ath rule were not oppressed, but the post-1980 period was more regressive because of the attack. The fourth part is entitled "Religion and sectarianism under the Ba'ath". This part emphasizes the argument that both the political and religious players have employed sectarianism to reconfigure the academic space in Iraq.

Chapter 3 is titled "The UN sanctions: Consenting to occupation through salvation". This chapter covers the 13 years of the UN sanctions (1990-2003). The author notes that the years of the UN sanctions, according to most of his interlocutors, were the hardest times for them. Many academics believed that these sanctions were used as a tool by Western powers to force people to consent to the later occupation of Iraq.

In Chapter 4, titled "The occupation: Paving the road to exile and displacement", the author focuses on how Iraqi higher education institutions were destroyed and reconfigured after 2003. The main argument presented in this chapter says that the major methods that define the reconfiguration of power and the reconfiguration of the role of academics in post-occupation Iraq included death threats, sectarian violence, assassinations, and the wretched policies of "de-Ba'athification"

Chapter 5 is titled "Lives under contract: The transition to the corporate university". In this chapter, the author examines how exiled academics had been subjected to change: leaving the status of being vital actors with stable jobs before 2003 and then starting a life "under contract" in Jordan and Iraqi Kurdistan. According to the author, this change had devastating effects on their personal lives, scholarly projects, and the future of Iraq. The testimonies in this chapter show that the situation of academics is not separate from the ongoing corporatization of higher education in global terms. Chapter 6 is titled "Language as a metonym for politics". In this chapter, the author focuses on how the Kurdish language acts as a metonym for politics for the academics displaced internally. The author presents important insights into the social, cultural and historical aspects of the Kurdish language in Iraq. There are three sections in this chapter with the following sub-titles: the politics of language on campus; the social implications; do sad stories ever end?

Chapter 7 is the concluding chapter of the book titled "Final reflections: Home, exile, and the future". In this chapter, the author summarizes the key insights of the book. At the end, he provides a collage of Iraqi voices with their own words telling how they feel about home, war and loss. This chapter also draws a vivid picture of their hopes, dreams and aspirations.

Bullets in envelopes: Iraqi academics in exile is based on in-depth interviews with exiled academics. This book veers away from the so-called understanding of post-occupation Iraq – that of securitization – to focus on the experiences of several Iraqi academics who live in exile. The concepts presented in the book can be seen as a significant contribution to the literature. Louis Yako introduces the subject of Iraqi academics in exile with the concept of "genealogy of loss" to describe the ramifications of the invasion of Iraq in 2003. Last but not least, it can be said that the sui generis tone of the book diverts away from the colonial narratives and provides ample space for critical reflection. I strongly recommend Yako's book to everyone interested in knowing Iraqi academics' positions in the aftermath of the U.S. invasion of Iraq. *Bullets in envelopes: Iraqi academics in exile* is a must-read for everybody who wants to explore the sui generis stories of Iraqi academics through exile and displacement.