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Rethinking online assessments for adult learners: Exploring synchronous group presentations

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Abstract

This study explores the shift from written assignments to synchronous group presentations in a fully online marketing course at a Singapore institution for adult, part-time learners. The change, implemented in mid-2023, aimed to enhance engagement, develop essential skills, and address academic integrity issues arising from AI-generated content. Employing the Community of Inquiry framework which emphasises cognitive, social, and teaching presence, the pilot's effectiveness was assessed through mixed-method surveys involving both students and instructors. Despite perennial groupwork challenges such as scheduling conflicts and participation issues, the findings indicate that synchronous group presentations enhanced engagement and essential skills development in the digital age. The paper recommends incorporating asynchronous elements and additional support to optimise online group presentations. Although this is a small-scale study, its findings offer valuable insights for educators and institutions striving to enhance learning outcomes and mitigate overreliance on generative AI in assessments.

Introduction

The number of adult learners in higher education has been increasing in recent years, particularly with the COVID-19 pandemic's push to online learning (Fiorini et al., 2022). Adult learners in higher education are typically older than traditional college-age students. As they may be working or may have familial obligations (Bober & Dennen, 2001), online learning makes a significant difference to adult learners as it offers them the flexibility to pursue their education at a time and place that fits their schedule constraints (Lu et al., 2022; Ng, 2023). Studies suggested that part-time adult learners were satisfied with online learning as they were able to save on commuting time and view lecture recordings from the comfort of their own home (Fiorini et al., 2022). Nevertheless, academic integrity is a concern for adult learners, particularly in online or distance learning (Jocoy & DiBiase, 2006).

The rise of generative artificial intelligence (GenAI) tools like ChatGPT has exacerbated issues of plagiarism and compromised academic integrity in written assessments (OECD, 2023; Zhang et al., 2024). GenAI is capable of "generating seemingly new, meaningful content such as text, images, or audio from training data" (Feuerriegel et al., 2024, p. 111), making it difficult to distinguish from human work. GenAI has changed the assessment landscape of higher education, bringing multiple opportunities, such as generating feedback and conducting automatic marking (Chiu, 2024). However, it also presented challenges as students could submit AI-generated work for assessment purpose, passing it as their own (Luo, 2024). Indeed, instructors might not have the confidence or the ability to correctly identify the authorship of students' work (Murray & Tersigni, 2024).

Researchers have suggested that presentations and discussions as assessment types focus on higher-order thinking skills and may be less impacted by the use of GenAI (Smolansky et al., 2023). Although students could simply read off AI-generated scripts during online presentations, Nikolic et al. (2023) highlighted that GenAI tools could not take the place of students in real-time oral components that require quality interactions (e.g., questions and answer segments, reflections) suggesting higher integrity strength. Oral assessments also have the additional benefit of developing communication skills for students. Communication (the ability to share information effectively) and collaboration (the ability to work effectively with others) were listed as the top two critical core skills in a Singapore government report forecasting in demand and transferable skills over the next two years (SkillsFuture Singapore, 2023). This suggests that oral presentations that require students to demonstrate learning through presentations and interactions may address the need to develop critical transferable skills.

Hybrid and remote work arrangements are increasingly becoming the norm in a post-COVID environment (Tan, 2024). To prepare graduates for evolving workplaces, educational institutions must adapt their assessment methods accordingly. Incorporating synchronous presentations into the curriculum can offer students the opportunity to present and defend their work in real time, fostering critical thinking, presentation, and collaborative learning skills in a hybrid environment (Chen et al., 2009; Evans et al., 2024). These competencies are crucial in both academic and professional contexts. However, despite their potential to enhance employability, synchronous presentations remain underutilised as an assessment method (Hughes et al., 2024).

While individual synchronous oral assessments, such as viva voces, are effective in promoting academic integrity and preparing students for professional life (Sotiriadou et al., 2019), they present significant challenges when applied to large cohorts due to logistical constraints and resource demands. In contrast, asynchronous presentations offer flexibility, allowing students to participate at their convenience, which is particularly beneficial for adult learners facing time constraints. However, pre-recorded asynchronous presentations may fall short in developing students' real-time presentation skills and their ability to navigate the unique social dynamics and technical aspects of online presentations (Hughes et al., 2024).

A possible solution to manage large cohorts is to assess students based on group presentations instead of individual presentations. Synchronous group presentations with question and answer (Q&A) segments could develop students' presentation and collaborative learning skills and address growing concerns about the over-reliance on GenAI and its ethical implications in completing written assignments.

Although research has examined the effectiveness of the different learning modalities such as asynchronous, synchronous and face-to-face experiences (e.g., Hrastinski, 2008; Martin et al., 2021; Muller et al., 2019; Zeng & Luo, 2023), relatively fewer recent studies compare assessment types within online environments from instructors and adult learners' perspectives (see for example, Jung et al., 2023). This gap is evident in searches conducted through academic databases and tools such as Google Scholar, Research Rabbit.ai, and Inciteful.xyz. Addressing this gap as well as the challenges of GenAI, we seek to answer the following research questions:

1. How effective are synchronous group presentations?

2. How do instructors and students perceive the shift from written assignments to synchronous presentations?

3. What are the challenges of implementing synchronous group presentations in large online classes, and how can these be effectively mitigated?

This study evaluates synchronous group presentations as an assessment method to promote authentic learning and enhance academic integrity, reducing dependency on AI-generated content. It is guided by the Community of Inquiry framework, which supports the integrated development of cognitive, social, and teaching presences essential for meaningful learning experiences (ElSayad, 2023; Garrison et al., 2010). To increase relevance to professional skill development, the assessment is also guided by the Five-

Dimensional Framework for Authentic Assessment (AAF) (Gulikers et al., 2004). This addresses the gap between assessment tasks and work in the real world.

Through a case study of implementing synchronous group presentations in a university with adult learners, this research aims to understand the experiences and perceptions of both students and instructors, thereby offering valuable and practical insights when implementing synchronous group presentations as an assessment strategy. This study explores the potential of synchronous group presentations to maintain academic integrity and with the additional benefit of fostering critical skills such as communication and collaboration skills. Practical implications and recommendations are also drawn from this study to help higher education institutions develop and implement synchronous group presentations.

Theoretical background

Community of inquiry

Garrison et al. (1999) proposed that learning within the community takes place through the interaction of three components: cognitive presence, social presence and teaching presence. Together, the three components form a framework which can be used to guide the research of online learning in higher education (Garrison et al., 2010). Known as the Community of Inquiry, it is a theoretical framework that can be used to understand the underlying processes of student learning in online environments (Shea & Bidjerano, 2008).

Cognitive presence can be defined as "the extent to which the participants in any particular configuration of a community of inquiry are able to construct meaning through sustained communication" (Garrison et al., 1999, p. 89). It involves four phases: (1) A trigger event in the learners' shared environment, which identifies an issue or a problem; (2) Exploration by learners, both individually and as a group; (3) Integration of ideas and content from the exploration phase; (4) Resolution, in which learners apply the new knowledge they have gained (Garrison et al., 2001).

In online learning, *social presence* refers to "the degree to which a communication medium allows group members to perceive (sense) the actual presence of the communication participants and the consequent appreciation of an interpersonal relationship, despite the fact that they are located in different places, that they may operate at different times, and that all communication is through digital channels" (Lowry et al., 2006, p. 633). It is about participants of the community presenting themselves as "real people" in the community (Garrison et al., 1999), leading to increased interaction, engagement and group cohesion (Garrison & Arbaugh, 2007; Lambert & Fisher, 2013).

Teaching presence refers to "the design, facilitation and direction of cognitive and social processes for the purpose of realising personally meaningful and educationally worthwhile learning outcomes" (Anderson et al., 2001, p. 5) and this is typically established by the instructor (Garrison et al., 1999). Teaching presence enhances cognitive presence and social presence to achieve educational outcomes.

Authentic assessment

Authentic assessment is critical to prepare students for the dynamic nature of the real world and stimulate students to develop skills or competencies which are aligned to the future world of work (Gulikers et al., 2006). It prepares students for their professional life and enhances their engagement in learning as they are expected to demonstrate the qualities of an expert employee of their field in their assessment (Sokhanvar et al., 2021).

Authenticity of the assessment can be understood as the similarity between the cognitive demands of the assessment and the cognitive demands of a related criterion situation which reflects a real-life situation (Savery & Duffy, 1995). To define authentic assessment, Gulikers et al. (2004) proposed the Five-Dimensional Framework for Authentic Assessment (AAF). The five dimensions are task, physical context, social context, assessment result or form, and assessment criteria. Each dimension is a continuum that varies in the level of authenticity.

An authentic *task* is one that "that resembles the criterion task with respect to the integration of knowledge, skills, and attitudes, its complexity, and its ownership" (Gulikers et al., 2004, p. 71). It should resemble a real-world task in terms of complexity and ownership of the task and the process of developing a solution.

The *physical context* of the task should reflect professional practice in terms of how knowledge and skills will be used (Gulikers et al., 2004). Similarly, the *social context* should reflect the social processes in real-life contexts. For example, if collaboration is required in a real-life situation, the assessment should also require collaboration (Gulikers et al., 2004).

Assessment result relates to the output of the assignment which should be a "quality product or performance that students can be asked to produce in real life" (Gulikers et al., 2004, p. 75). The output should be evaluated against *assessment criteria* that relate to a "realistic outcome, explicating characteristics or requirements of the product, performance, or solutions that students need to create" (Gulikers et al., 2004, p. 75). This means that the assessment criteria should be based on real-life situations and evaluate the development of relevant professional skills.

In their extensive review of authentic assessment literature, Ashford-Rowe et al. (2013) identified eight critical elements of authentic assessments. The authors underscored the importance of including metacognition, through self-assessment and critical reflection, to deepen learners' engagement and personal growth. They advocated for the integration of structured feedback opportunities, enhancing the original five dimensions by promoting reflective learning and continuous improvement in real-world contexts. Additionally, authentic assessment should promote knowledge transfer across different domains.

Methodology

Context

The study focused on a population of 340 part-time and full-time students enrolled in an online marketing course, along with 13 part-time instructors who each taught a class of up to 36 students. The marketing course was a foundation-level undergraduate course at a Singapore institution that served a significant number of part-time, adult learners. The course had been offered fully online even before the pandemic, with a cohort of approximately 300-350 students, with 30 to 36 students per class. The course instructors were mainly part-time lecturers with 10-15 years of face-to-face and online teaching experience. A course leader coordinated the teaching team to ensure consistency in curriculum delivery and assessment matters.

The course was structured around six synchronous online seminars held from 7pm to 10pm over a 12-week period, accommodating the schedules of working adults. Seminar recordings were made available. The course also supported asynchronous learning through study guides, additional resources, and discussion forums.

Traditional assessments had included quizzes, class participation, online discussion forums, individual and group written assignments, and a final exam. The written assignments required students to apply course concepts to analyse case studies of real-world marketing issues and submit a written analytical report proposing solutions. The group assignments, which did not require real-time meetings, allowed flexible peer-to-peer learning for part-time adult learners.

In early 2023, following the release of widely available GenAI tools like ChatGPT, the institution released guidelines allowing students to use GenAI tools for written take-home assignments for most courses, with stipulations for disclosure and acknowledgement to promote ethical and informed use (Rakshika & Lee, 2024). However, this approach was not without challenges and implications (Dwivedi et al., 2023; Wang et al., 2024).

The solution

A decision was made to introduce synchronous group presentations to replace the written group assignment. Synchronous group presentations had the potential of addressing the concern of academic integrity with the use of GenAI, and the added advantage of developing communication and presentation skills for marketing students.

The assignment consisted of a case scenario, in which the students represented a statutory agency, tasked with devising solutions for a chosen local organisation, selected on a first-come, first-served basis to promote engagement and ownership. Although it was a group assignment, it required students to work on their individual assessments before working on the group assessment, ensuring all students were prepared to contribute meaningfully to the group solution.

The new assessment was guided by the AAF (Gulikers et al., 2004) to ensure that the learning tasks closely mirror professional activities. This alignment not only enhanced the relevance of the tasks but also encouraged the application of theoretical concepts in real-world scenarios, thereby supporting deeper learning and skill development.

The first dimension, *task*, required student groups to play the role of executives at a local agency tasked to develop a marketing campaign proposal for selected organisations and present the proposal in a synchronous group presentation. This was similar to real-world scenarios where professionals must present and defend their ideas, applying knowledge, skills and attitude of marketing professionals. This design ensured cognitive presence, as students engaged deeply with content while preparing for real-world application.

The *physical context* of synchronous presentations in an online setting effectively simulated real-time interactions and resource usage typical in professional environments. While the simulation provided a relatively lower fidelity, "clean", and "safe" learning space, which was appropriate for a foundational course, the online group work requirements, as well as the largely part-time student cohort, created logistical and time-related challenges that students would need to deal with, similar to professional work. Synchronous presentations also challenged students to engage in independent research, fostering critical thinking about relevant and irrelevant information (Gulikers et al., 2004).

Group presentations enhanced collaboration and communication skills, aligning academic exercises with professional workplace demands, thus addressing the *social context* dimension. These activities promoted social interaction, positive interdependency, and individual accountability, crucial for workplace success and reflective of the social presence component of the Community of Inquiry framework (Garrison et al., 1999).

The *assessment result or form* requires students to demonstrate competencies by the creation of a quality solution to other people (Gulikers et al., 2004). For this assessment, students were required to deliver presentations and participate in Q&A sessions with a live audience. This format not only assessed their understanding and application of marketing concepts in real time, but also reinforced cognitive presence through active and participatory learning. Additionally, the Q&A or interview-type presentations aligned with academic integrity goals (Nikolic et al., 2023) and might reduce the reliance on AI-generated content (Ward et al., 2023).

The use of clear grading rubrics or *assessment criteria,* provided at the start of semester and discussed in class, ensured that students clearly understood the assessment and feedback expectations. This approach strengthened teaching presence, guiding students towards meaningful outcomes.

Implementation of the solution

Guided by the Community of Inquiry framework, the Head of Programme developed the initial grading rubrics focused on articulating and defending ideas and demonstrating a comprehensive understanding of the group's solution. These drafts were refined through two rounds of feedback from four senior course instructors to ensure clarity and alignment with course outcomes, particularly in presentation and group working skills.

Before the course commenced, all 13 instructors were briefed by the Course Leader and Head of Programme on the new assessment approach, including contingency plans for technical issues during presentations (e.g., options for rescheduling or recording presentations with live Q&A sessions). Throughout the semester, communication among instructors was maintained through WhatsApp and email, allowing for consistent lesson delivery while providing room for additional student support activities as needed.

Technological setup

The course sites on the Learning Management System (LMS) hosted all course announcements, materials, assessments and additional materials. The LMS was also used to facilitate group selection and allocation processes. Based on experience, many part-time adult learners did not check their school emails or LMS regularly. Most instructors maintained groups on messaging apps (Telegram or Whatsapp) as a backup communication channel for immediacy purposes. All synchronous seminar sessions were held over Zoom with recordings made available on the LMS. Synchronous presentations were also conducted through Zoom.

Managing synchronous assessment for large classes

Managing synchronous presentations for up to 36 students per class presented logistical challenges. To accommodate part-time students' schedules, presentations were spread across two weeks (refer to Table 1 for the two sessions) following a one-week break. Each group had a 20-minute presentation followed by a 10-minute Q&A session during the three-hour seminar slot. This schedule allowed for equitable access to presentation slots on a first-come, first-served basis, and all sessions were recorded and made available on the LMS.

To mitigate the potential advantage for groups presenting in the second session, all groups were required to submit their final slides one week after the second session of presentations, allowing groups who presented in the first session more time to incorporate feedback and make minor adjustments to their presentations (refer to Table 1). All student groups received individual and group feedback with completed rubrics documents from their instructors at the end of the semester.

Table 1. Weekly schedule for the course.

Weeks of the Semester	Activity
Week 0	Start of Semester: Individual and group assessments available to all students.
Week 1 to 6	Students attend six three-hour synchronous seminar sessions.
Week 1 to 2	Students to form groups of four and select their industry/local organisation for proposal formulation.
Week 3	Students submit an individual assignment (related to the group assignment).
Week 5	Students receive feedback on individual written assignment.
Week 7	Break
Week 8 (Session 1) and 9 (Session 2)	Presentations are scheduled over two weeks due to large class size. Each group has 20 minutes for their presentation and 10 minutes for a Q&A session within a 3-hour slot. Non-presenting groups may attend peer presentations. All students had access to the recordings.
Week 10	Groups to submit final presentation. Groups are allowed to make minor edits to the presentation slides based on feedback but no content changes were allowed. Session 1 groups have an additional week for these edits to ensure more fairness as Session 2 groups have access to Session 1 presentations.
Week 12	Groups to receive completed rubrics documents with individual and group feedback. End of Course/Revision Week
Weeks 13 to 14	Written exams

Data collection and analysis

To evaluate the effectiveness of synchronous group presentations, mixed-method surveys targeting both students and instructors were employed. The survey questions were guided by the Community of Inquiry framework to assess the planning and delivery aspects of synchronous presentations. Qualitative questions specifically addressed initial concerns, adopted strategies, and future recommendations related to the synchronous group presentation format.

After obtaining Institutional Review Board (IRB) approval, the survey was distributed later than planned (Week 13), resulting in a lower response rate due to some part-time learners not checking their institutional emails post-course. A total of 28 student responses (19 part-time learners and 9 full-time learners) and six instructor responses were received.

Thematic analysis was applied to identify common themes related to the effectiveness of synchronous group presentations, student engagement, challenges and strategies (Braun & Clarke, 2006). Additionally, ChatGPT-4 assisted in identifying potential missed themes, ensuring a comprehensive analysis. The emergent themes were aligned with the Community of Inquiry and Authentic Assessment Framework. Detailed descriptions of these themes for both students and instructors are provided in the next section.

Based on the findings, recommendations were proposed to refine the assessment strategy, emphasising human elements and reducing reliance on GenAI tools (Liu et al., 2023).

Findings

Quantitative analysis of students' and instructors' responses

Quantitative survey responses indicated a positive reception towards synchronous group presentations among instructors, part-time and full-time students.

Table 2 presents student-reported impact of synchronous group presentations compared to written assignments. A significant 82% of students agreed or strongly agreed that this format promoted collaboration and interaction, and similarly, 79% felt it fostered discussions on course concepts. 71% noted that preparing for synchronous group presentations required comprehensive reviews of group contributions, enhancing engagement with the material. Positive impacts were also noted in understanding of course content as 72% of the students felt that the presentations had positively influenced their understanding of course content. 82% of the students felt that the presentations improved their confidence in presenting ideas.

Table 2. Student perspectives comparing synchronous group presentations with written assignments.

Compared to written group assignments, synchronous group presentations…	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Promoted more collaboration (frequent and meaningful interactions)	36%	46%	18%	0%	0%
Required more frequent negotiation and discussion of course concepts	43%	36%	18%	4%	0%
Required review of each group member's contributions in more detail	39%	32%	21%	4%	4%
Positively influenced my understanding of course content	29%	43%	21%	7%	0%
Improved my ability to present ideas coherently and confidently	29%	53%	18%	0%	0%

Based on instructors' quantitative responses (presented in Table 3), the majority observed that synchronous presentations significantly boosted student interactions and facilitated deeper discussions on course concepts, enhancing the social presence in the online setting. Opinions varied on whether these presentations led to a more thorough review of peers' contributions. While some instructors noted an increase in content engagement and comprehension, others reported neutral experiences, suggesting variability in student engagement levels.

Qualitative analysis of students' and instructors' responses

Through qualitative analysis of the responses from students and instructors, a number of themes emerged. Table 4 describes the students' responses based on themes that relate to the COI components and the AAF dimensions. Table 5 describes the instructors' responses based on themes also related to COI and AAF. From the two tables, it was clear that both instructors and students had similar concerns in areas such as content application, skill development, peer collaboration and instructional design. More in-depth analysis was done to better understand the challenges faced by the students and how they mitigated these challenges. The rest of this section describes the challenges and concerns faced by students and instructors, as well as findings related to skill development and the use of GenAI.

Table 3. Instructor perspectives comparing synchronous group presentations with written group assignments.

Compared to written group assessments, synchronous group presentations…	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Required students to interact more frequently and meaningfully with group members	50%	33%	0%	17%	0%
Required students to negotiate and discuss course concepts with group members more frequently	17%	67%	0%	17%	0%
Required students to review each group member's contributions in more detail	17%	33%	33%	17%	0%
Positively influenced students' understanding of course content	17%	33%	50%	0%	0%
Improved students' ability to present ideas coherently and confidently	50%	33%	0%	17%	0%

Table 4. Themes aligned to the COI and AAF Frameworks for students' qualitative responses.

COI Component	AAF Dimension	Theme	Definition	Sample Quotes
Cognitive Presence	Task	Content Application Concerns	Students' concerns about applying course concepts effectively during real-time presentations	"Applying the concept to the scenario given and ensuring my teammates are able to do the same." "I think while group presentations is more difficult for me, I felt that I have actually learnt more about the said topic and I tend to understand and remember the concepts covered more effectively."
	Task	Content Delivery Strategies	Methods used by students to improve presentation and delivery, such as frequent reviews and rehearsals	"We assisted one another and reviewed our scripts to ensure it was coherent and transitioned smoothly." "Constant review of slides (biweekly) and ensuring that the content answers the questions/key points of the scenario." "We had dry runs to ensure that we did not exceed the time and also to synchronize between the presenter and the slide controller."
	Task	Skill Development	Development of essential skills such as communication, presentation, and confidence building	"Presentation as it boosted my confidence." "The combination of understanding the topic and presenting it in a coherent and understanding way is a very important skill for work." "Group presentation because it improves communication and presentation skills which many students lack."
	Task and Assessment Result	Realistic Assessment	The extent to which group presentations reflect real-world scenarios and professional practices	"Group presentation because its more realistic and we can practice our presentation skills." "Group presentations as we need to present ideas in the workplace."
	Physical Context	Time Management	Responsibilities and managing deadlines in real-world context	"Difficulty to find a common time to plan and discuss on how to tackle the [assignment] questions." "We had to meticulously arrange and plan our schedules to ensure we all were free to practice and collaborate."
	Social Context	Presentation Anxiety	Presentation anxiety and uncertainty of questions clients may ask reflects real-world context	"Fear of face-to-face presentation." "My initial concern was on the uncertainty of questions that may be asked."
Social Presence	Social Context	Peer Collaboration	Significance of working with peers and the benefits and challenges associated with it	"Concerns about members not participating and contributing appropriately."
	Social Context	Group Dynamics	Challenges faced in coordinating group work, including non-participation and scheduling conflicts	"Some members did not contribute to the ppt / word document that was used to share our ideas." "Getting reliable groupmates is a challenge."
Teaching Presence	Social Context	Instructor Guidance	Role and importance of instructor support in providing feedback, guiding and mediating conflicts	"Report to course coordinator, did weekly meetups and updated to ensure team is progressing." "Instructor was able to advise …."
	Assessment Criteria	Instructional Design	Rubrics and guidelines	"We clarified with our instructor about the content expected." "I found out that different instructors had different guidelines and specifications about the synchronous group presentations."

Students' challenges and mitigation strategies

Challenges of group work

Students expressed several concerns typical of group work, particularly in an online setting —equitable participation, group composition, and the impact on individual grades were predominant issues. One student highlighted the risk

Table 5. Themes aligned to the COI and AAF frameworks for instructors' qualitative responses.

COI Component	AAF Dimension	Theme	Definition	Sample Quotes
Cognitive Presence	Task	Content Application	Students' ability to apply course concepts	"Some groups did not focus and address the [questions] well."
	Task	Skill Development	Development of students' skills, such as presentation and critical thinking skills	"Students' presentation skills significantly improved." "The Q&A sessions fostered deeper critical thinking." "Slides are usually bullet points…limited time to present...not sure about depth of their understanding …quality of individual presentation skills" (initial concern)"
	Task	Realistic Assessment	Evaluation methods that reflect real-world applications and challenges.	"The questions need to be well-drafted and be application-oriented."
	Assessment result/Form	Plagiarism	The decrease in instances of plagiarism and use of AI-generated content	"Live presentations minimized the chances of plagiarism." "This format provides a more authentic assessment of student abilities."
Social Presence	Social Context	Peer Collaboration	Role of working with peers in learning processes and achieving course outcomes	"(concerns about) the quality of student collaboration."
	Social Context	Group Dynamics	Handling interpersonal relations and team roles within group projects.	"Management of group dynamics was crucial for the synchronous presentations…."
Teaching Presence	Criteria	Instructor Guidance	Strategies to support content application and skill development	"I shared additional short segments of how to present better with my students."
	Criteria	Instructional Design	Guidelines and standards used to evaluate student performance and learning	"The Scoring Rubrics has been well-thought out." "The live format allowed for instant feedback and clarifications." "Tweak the weightages of the different categories to reflect greater importance of the: Individual's contribution to … In particular, the Individual's knowledge of the right content as well as their presentation skills to achieve the goal of the [assignment]"

that non-contributing members "*will jeopardise the rest of the team*." Another student shared about "*concerns about members not participating and contributing appropriately.*" Questions about the impact of a peer's lack of engagement on individual grades were also raised, for example, "*How would the individual [peer's] presentation affect my marks?*" Additional concerns included the application of course concepts, presentation anxiety, technical difficulties, and the unpredictability of questions during Q&A segments.

A significant challenge was coordinating schedules, especially for part-time students balancing work and study commitments. One student noted, "*As a part-time student, it takes a lot more of my time that I already don't have.*" Another explained the difficulty of aligning group availability due to diverse academic schedules:

> "our group came from different courses and also taking different modules, the greatest challenge was finding a common time…. A lot of adjustment needed and perhaps even personal time sacrifices in order to accommodate the common time."

One student explained:

> "The alignment of schedules, especially with a mix of part-time and full-time students and overseas work travel… the group was willing to make sacrifices, holding online meetings at odd times like 6am and 10pm."

Another student contrasted the dynamics of online versus face-to-face classes:

> "In face-to-face classes, at least we meet once a week, but we can't discuss our assignment during Zoom… we have to conduct separate sessions."

Students adopted various strategies to mitigate the challenges of synchronous group work, focusing on task management, communication, technological facilitation and seeking instructor support. Early task division, regular reviews, and rehearsals were key to ensuring smooth transitions between presenters. Preparation for potential technical issues included conducting dry runs and ensuring multiple members had access to presentation slides, with cues like "next slide" to maintain flow during handovers between presenters. One student described their approach:

> "We assisted one another and reviewed our scripts to ensure it was coherent and transitioned smoothly."

Another highlighted the importance of accountability in managing tasks:

> "The group assigned tasks to individual members and held each other accountable by having regular online meetings."

As online students who did not meet regularly, students used technology to facilitate collaboration. Popular platforms such as Zoom, Telegram, WhatsApp groups and Google Docs were instrumental for sharing documents and presentation materials. A student shared, "*We try to use Zoom, Telegram, and Google Docs to share the workload.*" Another student said, "(It started with) creating a WhatsApp group".

The above strategies aligned with the physical and social contexts of the AAF to address real-world challenges like limited resources and the need for positive interdependence and individual accountability in group work.

Sources of support

From students' qualitative responses, it was noted that instructors played a pivotal role in supporting students and reaching out to non-participative members. To address non-participation, students reported issues to course instructors, stating, "*…when we are unable to contact the specific member, we email the professor for help.*" Another added, "*Report to course coordinator and updated to ensure the team is progressing*."

It was evident that students had used multiple sources of support. Interactions with group members and course materials, such as rubrics and study guides, were identified as the most beneficial. Instructor guidance and class activities were generally seen as beneficial. External resources and AI tools like ChatGPT were considered slightly less useful than other aspects.

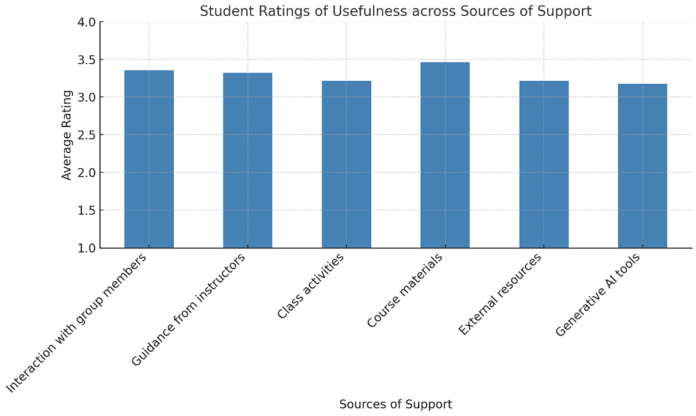

Figure 1. Student ratings of usefulness across sources of support.

These findings aligned well with the COI framework. The improvement in students' ability to present ideas confidently indicated a heightened cognitive presence, as students were required to engage deeply with the content and articulate their understanding effectively. The increased collaboration and interaction among group members reflected a strong social presence, fostering a supportive and interactive learning environment. Additionally, the structured guidance, managing group dynamics and resource provision exemplified teaching presence.

Instructors' concerns and mitigation strategies

Concerns about group work

Instructors voiced specific concerns about student participation and equitable contributions for the group presentations. They were worried about the risk of free-riders and potential disputes over workload distribution, encapsulated in concerns such as, "*whether they would speak up and contribute,*" and "*Initial concerns were on proof-of-work in terms of each person's contribution and workload.*" Instructors were also concerned about the groups' preparation for the presentations.

Instructors implemented various strategies to mitigate concerns. They provided additional guidance, posted reminders, and offered resources to develop presentation skills. This included conducting in-class briefings to familiarise students with presentation requirements and expectations. For instance, one instructor added, "*additional short segments on how to present better*," while another "*encouraged active participation during weekly classes to refine students' presentation skills and provide feedback*". Instructors adopted proactive communications strategies and kept students informed about potential technical issues and outlined contingency plans through in-class discussions and supplementary instructions.

Consistent with other studies, the dynamics of group work sometimes led to a cooperative rather than a truly collaborative effort (Donelan & Kear, 2023). An instructor observed,

> "Students … signed in separately to do their own part… this is no difference from what they did in the past [which is a] written report … each group member [is] only responsible for his/her part, resulting in incoherence."

The assessment rubrics were designed to penalise such disjointed efforts. The instructor's immediate feedback and post-assessment feedback for individual and group components would have included the lack of collaboration in the group work.

Challenges during presentations

During the presentations, instructors encountered several challenges that impacted student engagement and the overall effectiveness of the sessions. Other concerns include maintaining the quality of interaction during the presentation sessions.

A significant challenge was the hesitancy of students in the audience to engage during the Q&A segments. One instructor noted, "*Students (audience) were hesitant to ask questions, rendering the Q&A somewhat redundant.*" This lack of engagement limited the interactive potential of the presentations.

Instructors also faced difficulties in fully grasping the students' thought processes and solutions during the presentations as students were not required to submit their presentation slides before their presentation. One instructor commented:

> "Due to the lack of pre-provided materials (presentation slides), it was sometimes challenging to follow the presentation and grasp students' thought processes."

To improve this, another instructor suggested, "*Requiring students to submit their … PPT three days before the presentation would enhance understanding.*"

Two instructors went a step further by requiring students to submit visual aids in advance (even though it was not required) to ensure that the Q&A session would be more targeted. One instructor explained:

> "I made students hand in their visual aids (via email) before the presentation even though submission deadline was after the presentation and emphasised that they need not show the visual aids during presentation. This is so that they won't use the share screen on zoom, which result in seeing only a very small screen of the presenter."

Although this strategy supported concerns about assessing non-verbal cues and managing Q&A sessions, it might pose a problem for students observing the presentation as students would not be able to view the slides during the presentation. While the two instructors showed initiative in adding this requirement for students, it raised issues of inconsistent guidelines and practices between classes.

Initial concerns about potential technical glitches were prevalent among instructors. However, based on the feedback, presentations proceeded without technical issues, suggesting a general network stability and both instructors' and students' familiarity with synchronous video platforms.

Promoting professional skill development and content mastery

Despite the initial concerns, more than 80% of students would recommend synchronous group presentations over traditional written assignments, citing significant benefits in communication and presentation skills development. One student commented:

> "Presentations are pretty common in my future working industry… a good opportunity for me to build this soft skill so that my competency gets better."

Other comments from students included:

> "… builds my confidence in public speaking and sharing of knowledge."

> "… it's more realistic and we can practise our presentation skills."

> "… as we need to present ideas in the workplace."

Students noted deeper learning through this format:

> "While group presentations are more difficult for me, I felt that I actually learned more about the topic."

Another student summarised:

> "I find that I learn more through group presentations as I need to understand everything to check my group mates' work and to be able to answer any questions posed."

The active engagement required in presentations — such as brainstorming and dispute resolution — was seen as particularly beneficial:

> "The exercise of presentation, communication, brainstorming, and dispute-solving skills at the workplace reinforces concepts as we're required to verbalise our thoughts."

The value of instructor feedback and the development of transferable skills was also highlighted:

> "…After the course, I had to do a (another) video presentation. I think what the lecturer told and guided us on was very helpful…"

Instructors also acknowledged that synchronous group presentations generally improved students' confidence in presenting ideas and increased engagement. One instructor observed,

> "… they enjoyed the learning ... They even went to the [extent] of role-play as [agency] staff with the full works of [agency] logos on their [presentation]..."

However, one instructor noted that some students appeared to be reading off scripts, which might undermine the authenticity of the presentations. Nevertheless, all six instructors endorsed the use of synchronous group presentations, though they suggested incorporating additional guidelines to enhance their effectiveness.

Leveraging human skills in the age of generative AI

Students reported usefulness of external resources and AI tools like ChatGPT (Figure 1). However, AI was considered somewhat less useful than other aspects. Part-time students reported slightly higher utility of AI tools, possibly reflecting greater professional integration of such tools.

Instructors' responses focused on assessment tasks that would reduce the unethical use of GenAI tools. Examples include "*This format provides a more authentic assessment of student abilities*" and "*Live presentations minimised the chances of plagiarism*". Another instructor commented that the use of synchronous presentation "*minimises risk of irresponsible use of generative AI tools. This is because students would need to consider how they can convey their ideas across in a speech*".

One instructor pointed out that the rubrics criteria ensured students who relied solely on AI for creating presentation content would be at a disadvantage:

> "Of course they could use generative AI tools to help them …., but…. how they made the presentation effective in the way they spoke as well as the team dynamics. ….end up the wrong approach, hence still fare badly"

An instructor summarised the evolving challenges of detecting plagiarism with traditional tools like Turnitin, especially with the advent of ChatGPT4, suggesting the need to redesign assessments:

> ".. written report on ChatGPT4 is a breeze, and Turn-it-in (Turnitin) could no longer detect plagiarism. If it is going to be an assistive tool, then let's work with it and switch mode to synchronous group presentations as a pedagogy moving forward. … applicable …for a digitally native world of AI and the usage of Large Language Models."

Only one instructor took an opposing view, suggesting the need for an additional written report to enhance the detection of possible plagiarism and demonstrate deeper understanding. The instructor explained:

> "For slides and presentations, the Turnitin check is not available (I believe). If students submit a (written) report in conjunction with doing presentations, we would be able to assess the Turnitin percentage and details. During the presentation, students can be asked more specific questions to assess their knowledge and understanding and how they derive the content of their presentations."

Discussion and recommendations

Discussion

The aim of this research is to explore the potential of using synchronous group presentations to create opportunities for students to develop communication and presentations skills and address the GenAI-related challenges in higher education assessment brought about by GenAI. Through a pilot study conducted in an online course with part-time, adult learners, we could see that synchronous group presentations were effective as an authentic assessment, and it had the potential of mitigating the challenges from the emergence of GenAI.

This research gave us a rich understanding of how students perceived synchronous group presentations compared to written assignments. Students highlighted the necessity for deeper engagement with content, as they were required to apply, discuss, and defend their ideas in real-time, reflecting increased cognitive presence. The requirement for live interaction, negotiation, and collaborative problem-solving in group presentations directly engaged with the COI and the AAF emphasis on the social dimensions of learning. These interactions ensured that the assessment could not

be completed by solely relying on GenAI. Students reported that the assessment mirrored professional real-world activities, enhancing the authenticity by addressing the physical and social contexts of the tasks.

While students' perception was generally positive, they also shared a number of challenges that they faced as adult learners in an online course. Some of the issues faced by students were consistent with findings from previous research on the dynamics of both virtual and in-person group work (Jung et al., 2023; Roberts & McInnerney, 2007). Through this research, we saw how students came up with different strategies to mitigate the challenges that they faced. We also saw that instructors were positive about the use of synchronous group presentations. Although there were issues in implementing this solution, different instructors came up with various ways to mitigate the issues.

One of the concerns from instructors was plagiarism detection. Instructors were concerned that presentation slides, unlike written assessments, cannot be directly scrutinised by text-similarity software such as Turnitin. The effectiveness of plagiarism detection software is increasingly questioned, particularly with the advancement of generative AI tools. Several authors have highlighted the limitations of these tools as AI technology evolves, become more ubiquitous and students become adept at navigating such systems (Liu et al., 2023; Rudolph et al., 2023; Topinka, 2024). These findings underscore the importance of continuous education and awareness among instructors about the latest technological developments to ensure that assessment methods remain robust and effective.

Overall, instructors and students favoured synchronous group presentations for their ability to provide a more authentic assessment experience, promote engagement, and develop essential skills. However, they also highlighted the need for additional support mechanisms and fair assessment practices to ensure equitable participation and mitigate challenges.

Based on the identified themes, it was noted that metacognition and self-evaluation were not prominent in this case study. According to Ashford-Rowe et al. (2013), developing students' metacognitive abilities through self-assessment and critical reflection was a crucial component of authentic assessment tasks. While this study's approach of making assessment criteria transparent helped students align their work with expected standards, thereby aiding in effective planning and potentially fostering self-reflection, Villarroel et al. (2018) pointed out that merely publishing criteria had its limitations. Addressing this limitation in future iterations of the assessment design will further enhance the authenticity of the assessment.

Recommendations

Practical implications and insights were gleaned from this research, which we present as recommendations for institutions and instructors who would like to implement synchronous group presentations as an authentic assessment:

1. Developing presentation skills and student interaction in a systematic manner

Most instructors had incorporated opportunities for students to practise presentation skills during weekly in-class presentations, providing students the opportunity to receive formative feedback. Instructors also provided additional external resources and guides. Several instructors recommended including short segments on presentation design and presentation skills in the course curriculum. This would help students to improve their presentation skills.

Some students noted the difficulties in meeting up with peers in the online environment as compared to opportunities during face-to-face classes. As interaction with group members are viewed as the most useful aspect to support the task, instructors will need to foster a social presence that mirrors the informal interactions of face-to-face settings, albeit digitally, pre or post class to facilitate more interaction opportunities for groups. Previous studies have reported such instructor immediacy strategies facilitate meaningful learning for online groups (see Melrose & Bergeron, 2007).

To ensure the questions asked during the Q&A segments are thoughtful and enhance critical thinking, each group could be assigned to review a specific peer group's presentation in advance and prepare relevant questions. This strategy not only promotes deeper engagement but also encourages active participation and critical analysis among students.

2. Enhancing fairness across large cohorts

Addressing fairness across large cohorts emerged as a critical concern due to discrepancies in how presentations were managed across different groups, leading to uneven experiences. Instructors and students raised concerns about the timing of presentations and the possible privilege to groups which were presenting in a later session. As how one student pointed out:

> "...groups presenting later can take advantage of more preparation time and preview the presentations done by the earlier groups. They are more likely to score a higher grade. This damages fairness and justice."

To prevent later-presenting groups from potentially gaining an unfair advantage by viewing earlier sessions, restricting access to presentations and recordings of the first session was proposed. "*Session 2 Group Presenters should not be allowed to attend or access the Session 1 recording*". However, this would compromise peer learning as students would not be able to learn from all presentations. A better way would be to consider how all presentations could be scheduled on the same day.

Students also raised concerns that different instructors had different guidelines and specifications concerning the submission of presentation slides, suggesting the need for consistent guidelines and standardisation across classes. Some classes were asked to submit their presentation slides in advance, but this was not consistent across all classes. There was a strong recommendation from instructors on

the standardisation of submission practices, specifically requiring the advance submission of presentation materials. This would allow instructors to review content beforehand, and address students concerns by ensuring a more equitable and coherent assessment process.

Instructors had already implemented strategies such as pro-active communication, technical readiness briefings, additional resources and seminar activities to provide feedback on presentation skills. As suggested by one instructor, these practices should be further refined and uniformly applied in the seminar plans for all tutorial groups.

3. Promoting individual accountability and positive interdependence

Non-responsive group members and lack of participation are well-documented issues in collaborative learning environments. An instructor suggested that scoring rubrics could be refined to increase the emphasis on individual contributions relative to teamwork. Another instructor had remarked that some students "*signed in separately to do their own part*". This adjustment might further encourage a focus on personal performance, potentially at the expense of collaborative skills and positive interdependence.

Strengthening teaching presence through clearly communicated requirements, along with peer and self-evaluations, has been suggested as effective strategies to mitigate these group work issues (Donelan & Kear, 2023). Moving forward, administering peer and self-evaluation forms could enhance individual accountability and improve group dynamics. This would also address the need for metacognition to deepen learning.

4. Integrating GenAI tools to develop AI literacy

At the institutional level, students were permitted to use AI tools (where explicitly stated) to support the assessment process, with the necessary acknowledgements. With the increasing ubiquity of generative AI in educational settings, it is argued that its use is becoming "inescapable" (Lui et al., 2023; Rudolph et al., 2023). Therefore, we suggest that authentic assessments tasks that simulate real-world scenarios should incorporate the use of AI tools. Lodge et al. (2023) recommended that assessment designs, where both AI and students contribute to products like presentations, should provide clear opportunities for students to critically engage with AI, use it judiciously, and reflect on their learning.

Rubrics for synchronous group presentations could actively promote the development of AI literacy skills. Future iterations should require students to use AI tools ethically and productively. The Q&A segments could incorporate discussions on AI usage and reflection on the learning process. To ensure equitable access, introducing students to the Presenter Coach AI feature in Microsoft PowerPoint (available to all students) to enhance presentation proficiency could be beneficial (Microsoft, 2021). Additionally guiding students to use freemium or limited free AI tools that aid in the design and development of presentations, such as Gamma.Ai can help develop skills to use AI productively (see Wells, 2024 for further suggestions).

Instructors' insights reinforce the importance of synchronous group presentations in enhancing cognitive and social presence, supported by effective teaching strategies, to promote authentic learning. In the age of advanced AI, these assessments emphasise the critical human elements of collaboration and critical thinking, as noted in recent research (Liu et al., 2023). It is evident that there is a need to plan more strategically and deliberately for the development of essential skills and the ability to leverage AI to enhance productivity.

5. Blending asynchronous presentations with synchronous Q&A

Students' suggestions for improvement included offering both synchronous and recorded asynchronous options to enhance flexibility. A possible solution is a combination of recorded presentations (for instructors and students to view before the session) with a 15-minute Q&A segment during a scheduled synchronous session to provide meaningful real-time interactions. This format will allow students to prepare and record their presentations at their own convenience, effectively addressing the diverse scheduling needs of adult learners (Lowenthal & Moore, 2020). To ensure authentic engagement and facilitate peer-to-peer learning, these recorded presentations would be made available on a common platform, such as the Learning Management System, allowing all students to view the presentations before the synchronous session.

During the real-time Q&A, students will have the opportunity to demonstrate their depth of understanding by actively defending their views in front of a live audience and demonstrate their ability to navigate online social contexts. This approach also addresses instructors' suggestions to review the presentations in advance. The Q&A can be focused on in-depth questions that challenge students' comprehension and application of the material. Questions that specifically probe students on their use of AI tools and their reflections on the process will promote the development of AI literacy. Additionally, online peer evaluations will be administered upon submission to address participation issues and increase individual accountability.

To maintain fairness and prevent any group from gaining an undue advantage due to their presentation order, the shorter synchronous segment for each group will facilitate assessing all groups equitably within the same session. To enable more focused Q&A sessions, groups can be placed in a Zoom waiting room and admitted based on presentation slot.

This revised strategy aims to blend the flexibility of asynchronous presentations with the immediacy of synchronous evaluations, creating a more comprehensive and fair assessment process that effectively prepares students for professional realities.

Limitations and future research

Limited sample size, characteristic of many pilot studies, and the student demographics pose challenges in generalising the findings across broader online educational settings. While the rich insights gained are invaluable for understanding specific dynamics within this cohort, future studies should aim to include a more diverse and larger sample to further investigate across various demographics and learning environments.

This study underscores the importance of adopting flexible assessment strategies that leverage human skills and GenAI tools to enhance student learning outcomes. However, it offers limited insights on how AI tools were used to support students learning. As AI continues to advance, our educational approaches must also evolve to fully harness its potential while enriching the learning experience. Future research should focus on exploring how different types of AI tools can be ethically and effectively leveraged for synchronous group presentations whilst ensuring the achievement of learning outcomes.

Conclusion

This study explored the application of synchronous group presentations within a specific educational context. Both instructors and students have underscored the value of synchronous group presentations in fostering an authentic, interactive, and engaging assessment experience. The insights and recommendations offered here can provide valuable guidance for educators and institutions aiming to improve learning outcomes in online courses for adult learners in the age of generative AI.

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