Engagement in Collaborative Learning for Online Assessment on an English Language Course as a Sustainable Learning Approach

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Abstract
There is strong evidence to support the positive effects of collaborative learning on educational progress. Given that students will soon be employed, higher education must place a strong focus on collaboration. Thus, this paper focuses on collaborative learning and the engagement of students' cognitive, behavioural, and affective dimension that can be achieved through assessments. This study used a deductive approach and survey questionnaires to examine the impact of collaborative learning at three major themes that have helped shape our understanding of learner engagement in collaborative learning in an online assessment for language learning environment, using a quantitative research design. A survey questionnaire with 32 items was used to collect information from respondents. 11 male and 50 female 18-year-olds provided 61 unambiguous responses for data processing. The findings of this study provide credence to the notion that all dimensions of involvement are interconnected and have an impact on one another. These findings highlight the need of investigating engagement as a multidimensional phenomenon and the need to broaden traditional notions to take consequential engagement into account. This has implications for developing assessments in a collaborative learning environment that highlights the possibility cognitive and conceptual-to-consequential engagement. Educators need to be aware of situations and tasks where individuals do poorly even while the group as a whole performs well. This review may inspire future work to develop a new collaborative learning model where success and failure can bridge the gap between learning theory and instructions in order to develop collaborative learning principles that can be explored at higher education institutions.
Keywords: Collaborative, Engagement, Connectivism, Dimensions

Introduction

There is substantial evidence that collaborative learning benefits educational development. Learners use each other's perspectives and experiences to solve issues and establish a shared grasp of meanings when they participate in collaborative activities. Collaborative learning is becoming increasingly significant in schools and organisations. It is the method by which students engage in small groups to study (Slavin, 2014). Students' achievement and productivity are influenced by their immediate surroundings and their relationships with those around them, particularly their peers. According to Thornburg (2000), the beginning of an altogether "new era" and reforms must be made in education to ensure that all students leave school prepared to meet the demands of a redefined world.

Collaborative Learning (CL) is a teaching and learning strategy in which groups of students work together to solve a problem, complete a task, or create a product. It also refers to an instructional strategy in which students of varying skill levels collaborate in small groups to achieve a common goal. Furthermore, we now emphasise the significance of elaborative emphasis on a student's academic success. It is the instructor's patience and effort to assist the students' teaching-learning through collaborative learning that is important. Furthermore, this proposed study will evaluate the impact of collaborative learning on students' academic achievement.

Collaboration is a method of interacting and developing a personal attitude in which students are accountable for their actions, learning, abilities, and contributions. Collaborative learning is a method of teaching and learning that involves others. It tries to tap into multiple characteristics of students in order to deliver holistic learning to students. Collaborative learning focuses primarily on how the students acquire knowledge and the values and interactions that the students experience while learning.

As a result, it is seen necessary to emphasise collaborative learning in higher education institutions, as students will soon be entering the real working world. To ensure students' capacity and credibility to adjust to the working environment, cognitive dimensions such as knowledge level and skills obtained, as well as emotional dimensions such as behaviour and emotions, must be focused on. Thus, this paper focuses on collaborative learning and the engagement of students' cognitive, behavioural, and affective dimension can be achieved through assessments.

Given the narrowness of engagement measurements, researchers have a limited grasp of the quality of engagement fostered in these circumstances. Researchers extend existing engagement frameworks, which have investigated this concept as a stable and decontextualized individual difference, to assist measure the level of engagement. Researchers define engagement as multidimensional (encompassing behavioural, emotion, cognitive, and conceptual-to-contextual forms), dynamic, contextualised, and collective.

Thus, this research emphasises on the importance of engagement in online assessment which improves collaborative learning by encouraging students to take responsibility for their participation in teamwork and by assisting them in understanding the nature of collaboration. Assessment is essential for determining group productivity and how well individuals collaborate as productive members of a group. Individual contributions, as well as self, peer, and group assessment, feedback, and reflection, can be used to grade individuals. Tests or assignments, rubrics, performance-based assessments, participation, media works, and or anonymous comments are examples of individual and group contributions.

New concepts and strategies for engaging online learners are emerging. A reconsideration of online learner engagement that takes into account both critical elements of learner

engagement and the contextual affordances that influence them is necessary. Online assessment is still used, and it is gaining prominence in Higher Learning Institutions, especially following the pandemic Covid-19. There was a lack of clarity about university policymakers' decisions on assessment methods. Now that students were back on campus, online assessments were judged unnecessary. Several issues arose as a result of the abrupt change to a wholly online learning approach, including assessments. And suddenly, instructors and students were perplexed by the assessments' infinite and changeable sequences. The assessment crises at universities exposed the evaluation system's vulnerability and weakness. This study would want to highlight the important role that online assessment can still play, and it offers significant benefits in terms of collaborative teaching and learning for a language course.

Hiver et al (2021) highlighted the benefits of collaborative learning in language learning such as increased motivation, enhanced language skills, improved social skills, and enhanced critical thinking skills. Based on Hiver (2021) synthesis of language learning studies, we conceptualised engagement in the current study as a collection of behavioural, cognitive, and emotional engagement methods. Fredricks et al (2004) define these characteristics, where the central feature of behavioural engagement is participation, which involves a student's involvement and activities performed to learn. Cognitive engagement refers to a student's interest in learning and appreciation for obstacles, which includes a willingness to put up effort in comprehending complex ideas and mastering challenging abilities. Finally, emotional involvement is a reflection of a student's overall good affective response to learning.

This research focuses on these 3 research questions which are do collaborative learning influence students' cognitive engagement in online assessments? Do collaborative learning influence students' affective engagement in online assessment? And do collaborative learning influence students' behavioural engagement in online assessment?

The researchers conduct a literature review on cognitive, affective, and behavioural engagement and apply it to collaborative learning for online assessment environments. In order to conduct rigorous and meaningful research, Creswell (2018) argues that researchers must be aware of their own epistemological and worldview assumptions and must carefully consider how these assumptions may shape their research design, data collection methods, and analysis. Thus, in this research, three major themes were investigated hence have helped shape the understanding of learner engagement in collaborative learning in an online assessment for language learning environment. Researchers investigated the variation in collaborative learning emphasising the engagement quality among groups using a developed questionnaire measure. Following that, this study uses a close quantitative analysis of these groups to distinguish between low- and high-quality collaborative involvement. Furthermore, this paper investigates how gauging online assessment involvement through collaborative learning changes the environment of language acquisition.

Literature Review
Students' Engagement
Student involvement is gaining popularity as a recognised technique for students to enjoy better learning and improved outcomes from an educational institution. According to growing studies, faculty and student practises influence the good results students obtain from their time spent attending a higher education institution. Increased levels of student involvement are acknowledged by educators and researchers to having a major positive influence on student learning and results (Carini et al., 2006; Kuh et al., 2007; Glanville & Wildhagen, 2007).

This research investigates the definition of engagement proposed by Fredericks et al (2004), which includes behavioural, emotional, and cognitive elements. Students' participation in academic and social activities constitutes behavioural engagement. Positive behaviour, interest in learning, and participation in school-related activities are the three basic characteristics of behavioural engagement (Fredericks et al., 2004). Student activities relating to concentration, attention, persistence, effort, asking questions, and contributing to class discussions are examples of involvement in learning and academic work.

Students' emotional engagement is mainly composed of their attitudes, interests, and values, which are notably tied to positive or negative interactions with instructors, staff, students, academics, or the institution (Fredericks et al., 2004). Students' affective reactions, emotional reactions, and school identity are the three key components. In the classroom, affective reactions include student interest, boredom, anxiety, sadness, and enjoyment. Positive or negative feelings towards the institution and instructors are examples of emotional reactions. School identification refers to students' sense of belonging and significance inside the institutional setting.

According to Fredericks et al (2004), cognitive engagement is divided into two categories psychological and cognitive. The psychological component includes motivating objectives and self-regulated learning as they relate to investment, thoughtfulness, and readiness to put up the work required to comprehend complicated ideas and master challenging skills. The psychological component emphasises students' investment in learning as well as their willingness to study. Self-regulated learning, metacognition, application of learning strategies, and "being strategic" in thinking and studying are all part of the cognitive component.

Studies have pointed out that online learning is positively related to student engagement and educational achievements (Walker & Koralesky, 2021; Wang & Eccles, 2012). Student engagement is one of the most important factors that raises concern in Online Distance Learning (ODL) due to the lack of physical academic interactions between students themselves and between them and their instructors. Moreover, student engagement is influenced by several factors, such as technology use, instructors, teaching style, and the surrounding culture.

Collaborative Learning for Online Assessment
The alignment of course objectives and assessment activities are crucial for courses that focus on developing complex abilities (such as critical thinking, creativity, and leadership) and use open-ended and unstructured learning tasks and assessments (Joksimovic et al., 2020). However, establishing these alignments between objectives and assessments (and learning activities) in a newly constructed course is less straightforward (Baldwin & Ching, 2019; Lowenthal & Hodges, 2015; Martin et al., 2019) and hence not immediately available to instructors. Any misalignment between course objectives and assessments can lead to erroneous measurement of student learning outcomes, which is a growing concern (Jaggars & Xu, 2016).

Several ways have been developed to assure the alignment of course objectives and assessments, one of which is collaborative learning. A teaching method in which students of varying skill levels collaborate in small groups to achieve common goals. Students are socially and emotionally challenged in a collaborative learning environment as they listen to different perspectives and are required to articulate and defend their ideas according to (Laal & Laal, 2012).

Quality education is the foundation for all educational institutions in Malaysia, as it is in other countries. The major goal of Malaysia's national policy philosophy is to educate students who are not only knowledgeable and skilful, but also have a strong sense of morality in order to achieve a high degree of individual well-being. This policy prepares students to contribute to the harmony of their family, community, and country (Ministry of Education, 2012). As a result, Malaysian educational philosophy emphasises the significance of balanced individual development for the betterment of society. Furthermore, graduates must obtain strong academic accomplishment as well as acceptable social capabilities for their future employment. The importance of collaborative learning is also emphasised in the Malaysian Education Blueprint (2013-2025), which emphasises computer-assisted, collaborative learning (MOE, 2013).

Previous research has found that problem solving in groups improves students' interpersonal and cognitive thinking skills, allowing them to not only retain but also transfer information in other areas. As a result, preparing students to collaborate is essential for long-term knowledge transfer. Furthermore, collaborative learning is beneficial in terms of developing students' leadership qualities, regardless of gender. In a collaborative learning process in the classroom, female and male students work collaboratively to attain the group's aim. As a result, students not only learn to exchange ideas in the classroom, but they also tend to become engaged in the subject and connect with one another through other forms of social interaction.

Methodology
Research Design
This study used a deductive approach and survey questionnaires to examine the impact of collaborative learning at three major themes that have helped shape our understanding of learner engagement in collaborative learning in an online assessment for language learning environment, using a quantitative research design. By ensuring an objectivist perspective in understanding a phenomenon, this research demonstrates an epistemology worldview (Creswell, 2018). Grading students' assessments was done by four instructors from two distinct campuses and one external examiner from a local institution. This is done to ensure that students' grades are distributed fairly. Aside from that, opinions and recommendations were critical to ensuring the success of the collaboration done and ongoing for students.

Participants
The current study's population was made up of students who had participated in collaborative learning at a higher learning institution in Malaysia. The 18-year-old students were chosen specifically from semester 3 to participate in this study. Following data cleaning, 61 unambiguous responses from 11 male and 50 female students were found suitable for data analysis.

Instrument
A survey questionnaire with 32 five-point Likert scale items was used to collect information from the students. The questionnaire items in the study focus on collaborative learning and the engagement of students' cognitive, behavioural, and affective dimensions, which may be attained through assessment, and they were merged and modified suitably to satisfy the research objectives. The survey was divided into two sections: Section A- demographic information of participants (5 items); Section B- the effectiveness of the three dimensions of

students on collaborative learning (32 items). The questionnaire used a five-point Likert Scale with the labels Strongly Agree=5, Agree=4, Neutral=3, Disagree=2, and Strongly Disagree=1. Participants responded to each item based on their prior collaborative learning experiences. Quantitative statistics analysis in the form of mean and standard deviation were calculated on the survey questionnaire's data. Apart from that, in order to assist the interpretation of the data, findings of the Likert scale were categorised into high, moderate, and low level. Data with the mean score of 1.00 to 2.33 are regarded as low level, while data with the mean scores of 2.34 to 3.67 and 3.68 to 5.00 are categorized as moderate and high level respectively.

Findings and Discussion

Table 1

Overall mean score of collaborative learning

Variable	N	Mean	SD	Level
Collaborative learning	61	3.85	.559	High

The survey received 61 authentic responses, with no missing data, according to the results. The assessment's mean score for the elements measuring cognitive, affective, and behavioural engagement in a collaborative approach to learning was 3.85, which indicates that there was a high level of agreement on collaborative learning among the students. The responses were mostly consistent, although the standard deviation of.559 indicates that there was considerable variation in the results.

Table 2

Mean scores of Collaborative Learning dimensions

Dimensions	N	Mean	SD	Level
Attitude	61	3.93	.603	High
Knowledge	61	3.89	.576	High
Sensory	61	3.89	.677	High
Emotion	61	3.71	.558	High

Table 2 provides statistical information about perception and agreement regarding the application of collaborative learning. The data shows each dimension's mean, standard deviation, number of valid responses, and missing data. Knowledge (K), Sensory (S), Attitude (A), and Emotion (E) are the dimensions stated in that sequence. All dimensions also reported high level of agreement among the students. Below are the means for each dimension: K, S, A, and E all have values of 3.89, 3.89, 3.93, and 3.71. The degree of variability or distribution of responses within each dimension is indicated by the standard deviation for that dimension. K = 0.576, S = 0.677, A = 0.603, and E = 0.558 are the standard deviations for each dimension. Based on these findings, it appears that respondents generally have a good opinion of the implementation of collaborative learning across all dimensions, with the Attitude dimension having the highest mean score (3.93) and the Emotion dimension having the lowest mean score (3.71). The standard deviation figures show that answers within each dimension vary to some extent, with the sensory dimension showing the most variation (0.677).

Table 3
Mean scores of collaborative learning for Cognitive (Knowledge) dimension

Items	N	Mean	SD	Level
I am able to concentrate.	61	3.85	.702	High
I am able to learn.	61	4.03	.682	High
I am getting better.	61	3.95	.739	High
I have set a goal for myself prior to the activity.	61	3.80	.679	High
I can overcome challenges with the activity.	61	3.80	.703	High
My learning experience was rewarding.	61	3.93	.680	High
It is important to me in my future goals.	61	3.84	.711	High
I am able to relate to what I have already known.	61	3.90	.700	High
Total Mean Score	61	3.89	.576	High

Table 3 shows the knowledge dimension's overall mean score was 3.89, which indicates a high level of agreement among the students towards the statements in the dimension. Furthermore, each statement also separately recorded high level of agreement on its own. The statement with the highest mean score is "I am able to learn" at 4.03. This is followed by "I am getting better" at 3.95. Meanwhile, two statements with the lowest mean score are " I have set a goal for myself prior to the activity" and "I can overcome challenges with the activity" at 3.80. The standard deviations range from 0.679 to 0.739, indicating some variability in responses among the students. Overall, the data show that students were involved in the cognitive aspect of learning and had a favourable opinion of the collaborative learning experience. Collaborative learning knowledge focuses on understanding and comprehension that students have about how to collaborate with others in a learning environment. It is expected that when students have a deeper understanding and comprehension of how to collaborate effectively, they are more likely to engage in future collaborative learning activities. On the other hand, if students lack collaborative learning knowledge, they may feel collaborative learning is challenging and may be reluctant to participate in any future collaborative learning. This is relevant to a study by Carini et al (2006), who found a positive correlation between student engagement and student learning.

Table 4
Mean scores of collaborative learning for Cognitive (Skills) dimension

Items	N	Mean	SD	Level
I can develop skill in critical thinking.	61	3.89	.709	High
I can develop skill in problem solving.	61	3.93	.750	High
I can develop creative capacities.	61	3.85	.771	High
I learned techniques and methods for gaining new knowledge in this subject.	61	3.87	.741	High
I can develop the ability to conceive and carry out independent work.	61	3.87	.806	High
I can develop skill in expressing ideas orally.	61	3.84	.820	High
I gained an understanding of the relevance of the subject matter to real-world issues.	61	3.84	.800	High
I gained an understanding of different views and perspectives on the subject.	61	4.00	.707	High
Total Mean Score	61	3.89	.677	High

Table 4 shows the overall mean score of skills dimension was 3.89, which indicates a high level of agreement among the students towards the statements in the dimension. Furthermore, each statement also separately recorded high level of agreement on its own. The statement with the highest mean score is "I gained an understanding of different views and perspectives on the subject." at 4.00. This is followed by "I can develop skill in problem solving." at 3.84. Meanwhile, two statements with the lowest mean score are "I can develop skill in expressing ideas orally" and "I gained an understanding of the relevance of the subject matter to real-world issues" at 3.80. There is a moderate variability in the students' responses, as seen by the standard deviation for this dimension, which ranges from 0.707 to 0.820. According to the statistics, students highly agree collaborative learning is generally effective at strengthening their ability to think critically, solve problems creatively, and discover new methods and techniques for learning a subject. Collaborative learning skills focuses on the set of interpersonal and group-based skills that individuals use to work effectively and productively in a collaborative learning environment. Students who possess strong collaborative learning skills are likely to be more effective in working collaboratively with others, whereas students who lack these skills may struggle to work effectively in a group setting. As skills mastery is part of cognitive engagement, the findings of this study are in line with what Fredericks et al (2004) said about cognitive engagement: if students are interested in learning, they are willing to work hard to fully comprehend complex ideas and master difficult skills.

Table 5
Mean scores of collaborative learning for Behavioural (Attitude) dimension

Items	N	Mean	SD	Level
I participated and involved in all the tasks.	61	3.98	.885	High
I am personable and approachable.	61	3.98	.695	High
I display genuine interest.	61	3.98	.719	High
I am attentive to needs of diverse student populations.	61	3.97	.706	High
I am willing to provide individual attention	61	4.05	.717	High
I listen when other students explained.	61	4.02	.671	High
I do more than required.	61	3.67	.790	Moderate
I pay attention to all details.	61	3.80	.679	High
Total Mean Score	61	3.93	.603	High

Table 5 shows the overall mean score of behavioural engagement was 3.93 which reflects positive attitudes about the learning process. All statement in the attitude dimension also separately recorded high level of agreement on its own except for one statement "I do more than required" which recorded moderate level of agreement.

The mean score in Table 5 shows behavioural engagement, which reflects positive attitudes about the learning process, was 3.93. There was some variation in the students' responses, as indicated by the standard deviations, which were generally moderate and ranged from 0.671 to 0.885. The highest mean score, 4.05, is obtained by item 5, "I am willing to provide individual attention". Item 7, "I do more than required" scores the lowest mean, 3.67. These statistics suggest that the individual exhibits qualities related to participation, approachability, attentiveness, and detail orientation, among others, based on the responses received. Overall, the findings imply that students were actively participating in their classmates' learning and had positive attitudes of the evaluation in general.

Indeed, attitude plays a significant role in the success of collaborative learning. Positive attitudes such as openness to learning, a willingness to listen to others, respect for different viewpoints, and a commitment to working towards common goals which are listed in the statement of attitude dimension in this study can enhance the success of collaborative learning. Students who have these attitudes are more likely to be active throughout collboarative learning process, contribute their unique perspectives, and work together effectively to achieve shared goals. On the other hand, negative attitudes such as apathy, lack of interest, resistance to change, and a lack of respect for others' opinions can hinder the success of collaborative learning. Students with these attitudes may be less likely to participate in group activities, disrupt the group's progress, or create conflict with their peers.

Table 6
Mean scores of collaborative learning for Affective (Emotions) dimension

Items	N	Mean	SD	Level
I enjoyed this activity.	61	3.87	.695	High
I feel good about myself.	61	3.69	.886	High
I experience frustrations.	61	3.54	.976	High
I feel socially connected during this learning activities.	61	3.82	.719	High
I wish I had been doing something else.	61	3.10	1.121	High
This activity was interesting.	61	3.88	.777	High
I think I can learn more by being active in participating the activity.	61	3.98	.719	High
I would like to have similar activities in the next semester.	61	3.79	.733	High
Total Mean Score	61	3.71	.558	High

According to the statistics given in table 5, the students' affective involvement with the learning activities was favourable. Items 1, 2, 4 "I loved this activity" with a mean score of 3.87, "I feel good about myself with a mean score of 3.69", "I feel socially connected during this learning activity" with a mean score of 3.82 and "This activity was interesting" with a mean score of 3.88 were reported higher mean scores. For the item "I wish I had been doing anything different," was reported a lower mean score of 3.09, indicating that some students may not have been fully involved or interested in the activities. Some of the questions, such "I suffer disappointments" with a mean score of 3.54 and "I wish I had been doing something else" with a mean score of 3.09 had rather large standard deviations, suggesting that there may have been some variation in the responses from students to these items. Overall, the findings imply that students enjoy themselves and have positive emotions while participating in the collaborative learning.

Affective or emotion engagement in the context of this study focuses on motivations and feelings experienced during the collaborative learning process as reflected in the statements of the dimension. Fredericks et al (2004) indicated that student interest, boredom, anxiety, sadness, and enjoyment are all affective reactions, whereas, emotional reactions include having positive or negative feelings about the institution and the instructors. When students are emotionally and affectively engaged, they are more likely to be motivated to participate in the activities, share ideas and contribute to discussions, and support their peers throughout the collaborative learning process. Additionally, emotional and affective engagement can help students to develop social and emotional skills such as empathy, communication, and

conflict resolution. These skills are essential for effective collaboration and can translate into success in future academic and professional endeavors.

Discussion

Variation in this research paper shows that participants answered questions or responded to stimuli differently. Variation shows that participants' backgrounds, experiences, and personalities have affected their responses and researchers have examined and interpreted response variation to derive relevant inferences and accurately report their findings. Researchers have found the patterns or areas for additional study in this data.

Collaborative learning for online assessment in an English language course can be an effective way to learn if the students are involved in the process. Findings show some different ways to get involved in online assessment for collaborative learning such as encourage students to actively take part in collaborative learning activities like discussions, peer feedback, and group projects to get them more involved and help them share knowledge and skills. Besides that, provide students options for making their learning experience their own, such as by choosing topics that interest them, and adjusting the pace of their learning to fit their needs. Set up a sense of social presence by getting students to talk to each other and interact with each other, for example through social media, chat rooms, and video conferencing is deemed helpful too to ensure engagement in their collaborative learning process. Overall, Hiver et al (2021) argue that collaborative learning can be an effective way to support language learning, particularly when combined with other teaching strategies and approaches. The authors note that collaborative learning can help to create a more engaging and supportive learning environment and can provide learners with opportunities to practice language skills in a range of contexts.

In addition, use self-assessment, peer review, and instructor feedback, as well as other forms of formative assessment, to give learners feedback on their progress have proven to help them to improve significantly. In addition, using authentic assessment tasks that mirror real-world situations and that require students to use their knowledge and skills to solve problems or finish tasks have increased their motivation and engagement in their collaborative learning process. By using these different ways to get students involved, collaborative learning for online assessment in an English language class can be a useful and long-lasting way to learn.

Conclusion

The results of this research paper support the idea that all three aspects of engagement are closely linked and affect each other. These results show how important it is to study engagement as a multifaceted phenomenon and to expand current ideas to include consequential engagement. This has implications for designing assessments that build high-quality cognitive and conceptual-to-consequential engagement in a collaborative learning environment. A single strategy assessment, on the other hand, is not a good way to define or measure student engagement. Even though engagement is always changing, it needs to be measured in a way that takes into account how the cognitive, behavioural, and emotional aspects of engagement work together. As student engagement is a key part of a good learning experience, it is important to choose an assessment strategy that takes into account the range of interactive engagement of dimensions, the different reasons for collecting engagement data, and the different levels of data analysis that are being targeted. There is evidence that show when students work together, they may not do as well as when they work alone. These results could caution educators that there are certain types of tasks and group situations in

which individuals don't do well even though the group does well. This review could inspire new work to develop a new model of collaborative learning in which success and failure could bridge the gap between learning theory and instructions in order to come up with testable principles of collaborative learning in higher education institutions.

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