

Making Assessment Engaging for Elementary/Primary Students in Online Learning

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Abstract

This paper identifies the two main areas of online education that cause problems for elementary/primary school teachers. This is done through the use of quantitative and qualitative data collected cross culturally in 2022. Specifically, teacher interviews and surveys were used. Through rigorous data analysis and triangulation, the two key problem areas that come out on top repeatedly are Assessing and Engaging students. The paper then goes on to identify best practice approaches to the integration of these two key problem areas, attempting to put forward a case and set of practical methods for “Making Assessment Engaging for Elementary/Primary Students in Online Learning.” This is done through a combination of a best practice literature review, teacher interviews and lesson observation forms. Justifications for the importance of this approach to assessing when teaching online are given, as well as potential limitations for this study.

Keywords: Assessment, Engaging, Online Education, Elementary, Online Learning

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Introduction

Understanding what aspect of the educational process causes the highest level of issue in a given context, and elucidating ways in which to alleviate the challenge in these areas, is a key part of educational research (Macur, G. 2022a). When teaching in an online context, one key issue that teachers face is a lack of credible targeted research (in comparison to that of a traditional classroom teacher). This led the author of this paper to conduct a piece of research to discover a hierarchy of problems that teachers face when teaching online. Once this hierarchy was discovered, a more directed practical application approach was needed in the research. This led to the creation of this paper and three additional stages of research. These research areas were geared towards helping teachers make assessment engaging for elementary/primary students. Why is it important to contribute to the literature surrounding education in an online context? Teaching online has become a rapidly growing field, partly due to the Covid-19 epidemic, where teachers globally found themselves flung into a context they did not understand, and partly because of the ease of access to education that parents want (Pokhrel, S., & Chhetri, R. 2021). Ultimately, there are a plethora of students around the world who are now studying in an online setting (McAllister, C. 2009), as such, educators and educational researchers have a duty to ensure the best education possible is being delivered.

The Initial Research

The initial research aimed to discover the main problems that teachers face when teaching online, and to create a hierarchy of these problems. The purpose of that aim was to ensure educators and educational researchers would be able to, in a targeted way, address the biggest problems that teachers are facing. The hierarchy was discovered by first, interviewing 13 teachers and asking them to list all the problems they faced when teaching online. These problems were then grouped based on similarity to create problem categories. There were 12 categories which emerged in total, these included: Assessing students, engaging students, technology, parents over or under support, motivating students, supporting students with barriers to learning, planning, behavior, communication, incorporating social-emotional learning, giving of instructions and general organization. At that point, 554 teachers were surveyed cross-culturally. These teachers were asked to choose the two main problems they were facing (although there was an option to choose more). This created a hierarchy of problems based on the number of votes each problem received. This list was then compared with a “1 country 1 vote” system. This system meant that countries which received a bulk of votes could not skew the data in a more global sense. In both the initial data set and the “1 country 1 vote” averaged data set, assessing students, engaging students, technology and parents over or under support were ranked in the top 4 problems (4th place almost double the number of votes as 5th place), (Macur, G. 2022b).

Comparison of the Full Data Percentage of Votes Vs. One Country One Vote

Problems	Full Data % of Votes per Problem	One Country One Vote % of Votes per Problem
Assessing	17.7	12.3
Engagement	14.9	15.4
Technology	12.7	14.4
Parents over	12.6	14.5
Motivating	7.5	7.3
Supporting	6.9	7.6
Planning and	4.7	2.3
Behaviour	4.5	4.4
Communication	4.5	5.8
Incorporating	4.4	5.0
Other	4.0	4.5
Instructions	3.9	4.9
Organisation	1.6	1.7

Figure 1: This is an image of a table with the 4 main problems teacher face highlighted in a drawn on red box. (Macur, G. 2022b)

The Next Steps

A mixed methods research approach was utilized to better inform data triangulation and formulation of recommendations (Almalki, S. 2016). The author identified that the two main areas of problem were assessing students and engaging students. In an attempt to directly influence both of these key factors, the author combined them, leading to the aim: To find ways to make assessment engaging for element/primary students. Three approaches were used to support the creation of best practice ways of doing this. These three areas included a literature review of best practice, a group interview with five elementary teachers who were experienced in relation to teaching online, and lesson observations. Once these steps were completed, a comparison was made to find the methods of making assessment engaging which arose the most. The methods which arose in all three areas of research, would form the primary methods to consider when making assessment engaging. The methods which arose in two areas of research would form the secondary level of concern and the methods which were represented in only one area of research, would be considered the lowest priority of recommendation, unless further analysis lead to a different conclusion.

The Three Research Area Findings

The first area of research was a literature review. The literature review revealed that 100% of respondents to a poll voted that engaging students to be challenging and that integrating active learning into assessments is one way to resolve this (Khan, A., Egbue, O., Palkie, B., & Madden, J. 2017). It was also found that enabling autonomy impacted engagement and motivation (Deci, E. L., & Ryan, R. M. 2012). Furthermore, using quiz/game-show approaches for formative assessment was found to positively impact motivation (Zarzycka-Piskorz, E. 2016), as well as the use of Gamification in a more general sense (Antonaci, A., Klemke, R., & Specht, M. 2019). Finally, the use of multimedia and peer-assessment had positive impacts on outcomes and motivation (Barra, E., Aguirre Herrera, S., Pastor Cano, J. Y., & Quemada Vives, J. 2014).

The second area of research was a group interview. Five elementary teachers were interviewed and asked to provide ways in which they have found assessment to be engaging when teaching online. Their answers included: Use animations; Offer read aloud functions

within assessments; Make use of Gamification; Use quiz tools such as Kahoot; If delivering directly as the teacher, use body movement to engage and clarify (Total Physical Response); Use yes/no questions where students make an action to answer, such as stand up and sit down; Offer autonomy in responses and to consider integrating AI (Artificial Intelligence) for upper primary.

Thirdly, lesson observations were conducted. These were added to see practical examples and to observe assessment methods which stood out as more engaging. The author split these findings into formative, summative and assessment as learning findings. Formative assessment recommendations included: Integrate movement and/or emojis on the platform to check learning is occurring; Use quiz platforms such as Kahoot; Play games either digitally or physically to check understanding. Summative assessment recommendations included: Use relatable scenarios; Give students autonomy on how they demonstrate their learning, e.g. PPT live presentation, Speech, Flyer etc; Set fair expectations; The author observed that the use of creativity and design demonstrated the highest levels of engagement when conducted. Assessment as learning recommendations included: Use self-assessment quiz platforms; Have students observe and provide simple feedback to each other.

The Comparison Findings

These three areas were compared to see what methods were represented the most. The more frequently a method showed up, the higher it would be placed in the recommendations at the end of this paper. All three research areas agreed that: Using Gamification and quizzes, application of active learning in the assessment process, and enabling student autonomy where possible in the assessment process, makes assessment more engaging for elementary students. Two of the three research areas agreed that using peer-assessment is an effective way to make assessment engaging, as can the use of multi-media such as emojis. One out of the three research areas revealed that assessments should have fair expectations, assessments should be relatable and the use of artificial intelligence should be integrated with upper elementary/primary students.

Limitations

Limitations of this paper include: The key patterns which emerged, as well as the key takeaways from the conclusion, may not be suitable in all contexts. The lesson observations which took place were not solely centered around how engaging assessments were, had the author told the teachers to aim to create their most engaging assessments, there may have been different outcomes and better findings. The teacher interview stage could have incorporated a second group, to review the first group's answers. The final suggestions put forward in the conclusion could have been reviewed by another group of online teachers, to assess their practical ease of application.

Conclusion

This paper looks at two of the main areas of problem for elementary/primary teachers when teaching online. These were engaging and assessing students. These were combined to create an aim to demonstrate how to make assessment engaging for elementary/primary students. This was accomplished through the application of a mixed methods research approach. This approach drew from a wide scale data set, reviewing the literature, interviewing teachers and observing online lessons. It was found that to make online assessments more engaging for

elementary/primary learners, it is most important to use Gamification, quizzes, active learning and to give students autonomy. Gamification and quizzes can easily be completed in the online learning space through the use of sites such as Kahoot. Active learning applied in the assessment context can include interviews, designing or creating. Autonomy can be given by giving students a selection of methods to demonstrate their learning, such as presentations, written papers, PPTs etc. Once these have been suggestions have been utilized, teachers can focus on ensuring the increased use of multi-media and peer/self-assessment. Multimedia can include the simple use of emojis or relatable characters embedded in the assessment. Self/Peer-assessment can be integrated through the use of rubrics, platforms and discussions. Finally, AI integration can be considered for the upper primary/elementary students, generally as a research tool. The author of the paper reflected on the comments around fair assessment and relatable assessments having only appeared in one of the three areas. This was concluded that as a result of these being general “best practice” approaches to assessment, as opposed to online learning specific, it simply did not seem specific enough for it to arise repeatedly (Nitko, A. J. 1996).

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