

SECONDARY TEACHERS PERSPECTIVES ON FREE ONLINE PROGRAMS TO PROMOTE STUDENT ENGAGEMENT

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Abstract

It can be challenging for teachers to keep students engaged in a physical classroom, however, in a virtual setting it is augmented further (Mobile guardian, 2020). Households can be very distracting for students and teachers are unable to walk around and cannot see if students are engaged or distracted (Farah & Barnett, 2019; McNiff, 2021). In addition, teachers can feel intimidated and overwhelmed with technology (Hertenstein, 2020; Schaffhauser, 2020). Teachers are struggling with virtual learning and have gotten little to no professional development on how to engage students in an online platform (Schwartz, 2020; Williams, 2021). This study will dive into various free online programs for virtual student engagement which will provide prospective from current teachers on the most to the least helpful program. These prospective will help provide professional development direction on which online program could be used to engage students in a virtual setting.

The 32 participants included current teachers in southeast Alabama. These participants were also enrolled in a master's of education program. The participants learned about various free online programs and were able to simultaneously implement those programs in their classroom. At the end of the semester students took an online survey asking which programs were least to most helpful for engagement, easiest to implementation, and programs they would like to know more about. Once the data was collected, descriptive statistics were used to analyze the results. The results showed the programs that were the easiest to implement were also the most helpful for engaging students. In addition, the programs they wanted to know more about were also the programs they stated were the least helpful were engaging students. A few implications of the study were at the time of the study all participants were learning and teaching virtually, this will affect the future usage as the future of virtual classroom settings is still undecided. In addition, the deep dive of each online program was limited due to the lack of time in the course.

Keywords: *Student engagement, virtual learning, online learning, secondary education.*

1. Introduction

Student engagement is an essential part of learning, they need to be actively engaged in their learning in order to achieve mastery (Linnenbrink & Pintrich, 2010). It can be challenging for teachers to keep students engaged in a physical classroom, however in a virtual setting it is amplified. Students are uprooted from their school learning environments into their households, most of which are not conducive for learning. Households can be very distracting for students and teachers are unable to walk around to see if students are engaged or distracted (McNiff, 2021; Mobile guardian, 2020; Farah & Barnett, 2019).

Another issue in virtual learning is the teacher's knowledge and comfortability with implementing technology for learning. Teachers can feel intimidated and overwhelmed with technology (Hertenstein, 2020; Schaffhauser, 2020). They are struggling with virtual learning and have gotten little to no professional development on how to engage students in an online platform (Schwartz, 2020; Williams, 2021). As a result, teachers are reverting back to lecture-based models as they are unfamiliar with online programs to help engage students. Lecture-based learning provides little to no engagement opportunities for students and, therefore, they are not active learners (Terada, 2019). This study will dive into various free online programs for virtual student engagement which will provide prospective from current teachers on the most to least helpful programs.

2. Literature review

In virtual settings teachers are unable to read the room to see if students are committed, focused, and engaged. Student engagement is associated with the physical environment classroom (Spencer, 2020). The physical environment of the classroom is a positive learning environment that promotes learning, engagement, and critical thinking. In a virtual setting it is a challenge for teacher to engage students. Bender (2003) found online classes are more work for the teacher compared to face-to-face classes. Teachers were trained to teach in a face-to-face environment not a virtual setting. When teachers were required to shift from in-person to virtual learning they were scrambling to adapt to virtual learning platforms (Williams, 2021). They received little to no training and only had a week at most to prepare. This resulted in online instruction mostly relies on lectures where students are the recipients of information in the learning process. Students are expected to learn and master the content knowledge by just listening.

Most engagement in online environments stem from adaptations of teaching strategies from face-to-face instruction. Many teachers were plagued with the myth that virtual learning was equivalent to face-to-face learning (Williams, 2021; Meyers, 2008). As a result, they are expecting the material to easily transfer to a virtual setting and for students to respond accordingly. Teachers needed professional development geared toward effectively teaching online (Williams, 2021). Teachers need tools to engage all students regardless of their circumstance in a virtual platform.

3. Methodology

This research study is a survey research design, in which the quantitative data is collected from survey (Creswell, 2015; Glasow, 2005). The results from the survey provide a general picture of the overall context of the entire set of research questions (Creswell & Plano Clark, 2007). The following research questions assisted in concluding the purpose of the study:

1. What free online programs are the most helpful for engaging students in a virtual setting?
2. What free online programs are the least helpful for engaging students in a virtual setting?
3. What free online programs are the easiest to implement?
4. What free online programs are the most confusing to implement?

4. Sample population

The sample population was 32 graduate students who were also currently secondary teachers in Southeast Alabama. These participants were either pursuing a master's degree in education or taking the courses needed to progress from a temporary to professional teaching certificate. The participants were enrolled in a secondary methods course taught in the evening via zoom for safety purposes. Concurrently participants were virtually teaching their students during the day via zoom also.

5. Data collection and analysis

To collect the quantitative data, a survey was sent to participants via email using Google Forms. The survey was comprised of five items, addressed the four research questions. The survey asked which technology programs were the most helpful in engaging students, least helpful in engaging students, easy to implement, difficult to implement, and programs they would like to know more about for a virtual setting. Each question was a multiple selection option including all the free technology programs covered (Kahoot, Google Docs, Socrative, Google Slides, Google Forms, Google Sheets, Edulastic, Go Formative, Classkick, Peardeck, and Blooket), participants weren't limited to selecting a certain amount for each question. Once the data was collected, descriptive statistics were used on each question separately.

6. Findings and discussion

The perspectives of which programs were the most and least helpful were the first two questions in the survey. The survey was given after participants had an opportunity to learn about each technology program and potentially implement it in their classroom. All participants responded to the question which programs are the most helpful for engaging students in a virtual setting and a few participants selected more than one answer. The top three programs participants selected for most helpful when engaging students in a virtual setting were Kahoot, Google Slides, and Google Docs.

Table 1. Participant Responses: Which program(s) are the most helpful when engaging students in a virtual setting? (select all that apply).

Programs	<i>n</i>	%
Kahoot	31	91.2
Google Docs	24	70.5
Socrative	7	20.6
Google Slides	27	79.4
Google Forms	17	50.0
Google Sheets	16	47.1
Edulastic	3	9.0
Go Formative	3	9.0
Classkick	2	5.9
Peardeck	11	32.4
Blooket	7	20.6

The next question asked participants which program(s) are the least helpful when engaging students in a virtual setting. Not all participants answered the questions. Only 27 participants responded to the question however there were multiple responses for some participants. Table 2 shows the results, the top four programs participants selected as the least helpful when engaging students in a virtual setting were Edulastic, Go Formative, Socrative, and Classkick.

Table 2. Participant Responses: Which program(s) are the least helpful when engaging students in a virtual setting? (select all that apply).

Programs	<i>n</i>	%
Kahoot	2	7.4
Google Docs	3	11.1
Socrative	12	44.4
Google Slides	1	3.7
Google Forms	3	11.1
Google Sheets	4	14.8
Edulastic	13	48.1
Go Formative	13	48.1
Classkick	11	40.7
Peardeck	8	29.6
Blooket	1	3.7

Questions three and four of the survey focused on which programs were easy or hard to implement in a virtual setting. All participants responded to question three about which programs were the easiest to implement in a virtual setting, most participants selected more than answer. The most selected responses were Kahoot, Google Docs, and Google Forms.

Table 3. Participant Responses: Which program(s) are the easiest to implement in a virtual setting? (select all that apply).

Programs	<i>n</i>	%
Kahoot	34	100.0
Google Docs	28	82.4
Socrative	1	2.9
Google Slides	15	44.1
Google Forms	20	58.8
Google Sheets	12	35.3
Edulastic	5	14.7
Go Formative	10	29.4
Classkick	11	32.4
Peardeck	8	23.5
Blooket	15	44.1

The fourth question asked about the programs that were difficult to implement in a virtual setting, it had a lower response rate of 25 participants. The top four programs the participants selected for hardest implementation were Edulastic, Go Formative, Socrative, and Classkick.

Table 4. Participant Responses: Which program(s) are the hardest to implement in a virtual setting? (select all that apply).

Programs	<i>n</i>	%
Kahoot	0	0.0
Google Docs	4	16.0
Socrative	15	60.0
Google Slides	1	4.0
Google Forms	10	40.0
Google Sheets	11	44.0
Edulastic	18	72.0
Go Formative	15	60.0
Classkick	14	56.0
Peardeck	10	40.0
Blooket	5	20.0

The last question on the survey asked participants which programs they wanted to learn more about. This question did not correlate to any research questions and had a response rate of 32 participants with some participants selecting multiple answers. The top programs participants wanted to learn more about was Classkick, Go Formative, Peardeck, Edulastic, and Socrative. Results are below in Table 5.

Table 5. Participant Responses: Which program(s) would you like to know more about? (select all that apply).

Programs	<i>n</i>	%
Kahoot	5	15.6
Google Docs	3	9.4
Socrative	15	46.9
Google Slides	4	12.5
Google Forms	3	9.4
Google Sheets	2	6.3
Edulastic	15	46.9
Go Formative	17	53.1
Classkick	19	59.4
Peardeck	16	50.0
Blooket	4	12.5
Other	0	0.0

7. Conclusion

As a whole, participants found some of the free online programs to be engaging and helpful in a virtual setting. Participants shared the programs they found to be most engaging in a virtual setting were Kahoot, Google Docs, Google Slides, Google Forms, and Google Sheets. In addition to most engaging they shared that these programs, with the exception of Google Sheets, were the easiest to implement. These programs help eliminate purely lecture-based lesson, students are able to engage in their learning using various programs (Khan, Egbue, Palkie, & Madden, 2017).

Unfortunately, there were some programs participants found ineffective in a virtual setting. Participants shared the programs they found to be least engaging in a virtual setting were Edulastic, Go Formative, Socrative, and Classkick. These programs were also selected as the most difficult to implement. In a virtual setting programs need to be engaged but also user friendly so it does not take time away from learning (Bowman, 2010). In addition to these four programs not being engaging and difficult to implement, the participants wanted to learn more about these programs, including Peardeck. This data leads to the conclusion that the participants were not trained effectively on the program and it could have led to ineffective usage. Therefore, more time needs to be spent on delivering the professional development for the programs the participants found nonengaging and difficult to implement. The lack of understanding surrounding the various programs could be preventing the various programs from being implemented correctly to help increase engagement in learning.

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