

Annotated Bibliography
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Education Related Research Topic

Engaging assignments for virtual learning

My research topic is in regard to educators who are lacking the confidence to use Microsoft Apps to create engaging assignments for virtual learning due to a lack of training.

Relevant Key Words/ Search Phrases

1. Student engagement
2. Student assignments
3. engaging assignments online
4. training teachers to use Microsoft
5. technology adoption + teacher training
6. Digital Competency

Additional Relevant Key Words/ Search Phrases

1. training teachers to use technology
2. digital fluency + teacher training

Useful Relevant Keywords/ Search Phrases

The most useful keywords/search phrases were digital fluency + teacher training and training teachers to use technology.

Explanation of Usefulness

Combining digital fluency + teacher training and training teachers to use technology were the most useful of my keyword searches. These searches made it possible for me find research studies that showed the connection between the need for more professional development and increasing teachers use of technology.

Annotated Bibliography

1. Batista, S., Pedro, N., Agonacs, N., Fonte, M., Oliveira, N., & Matos, J. F. (2017).

Evaluation of Teacher Training Satisfaction: A Critical Factor for Technology Integration in Higher Education. Proceedings of the European Conference on E-Learning, 580–584.

<https://search.ebscohost.com/login.aspx?direct=true&db=eue&AN=126280719&authtype=sso&custid=ns017578&site=eds-live&scope=site>

This was a quantitative study that looked at the satisfaction of the participants in the e-Lab workshops at the University of Lisbon and identify what had the highest influence their satisfaction. The study's results showed that participants were generally highly satisfied with the workshops offered. The researchers concluded that the satisfaction was so high due to the fact that they offered trainings that covered both the technical aspects of using technology to teach and the pedagogy of how to teach with technology.

One strength of this study is that they are demonstrating the importance of continued technology education for teachers. One of the weakness is that of the workshop participants only 61% complete the survey. The data could be skewed positively or negatively with the number of participants who chose not to complete the survey.

2. Chandra Handa, M. (2020). Examining Students' and Teachers' Perceptions of

Differentiated Practices, Student Engagement, and Teacher Qualities. Journal of Advanced Academics, 31(4), 530–568.

<https://doi.org/10.1177/1932202X20931457>

This research study was a mixed methods study where researchers collected qualitative data and quantitative data concurrently. The qualitative data was collected through an online survey of teachers and students. The quantitative was collected through teacher interviews. The purpose of the study was to identify and compare students' and teachers' opinions of student engagement, differentiation, and if teachers are more effective when fostering student voice. The findings of study including identifying that teachers reported that they provided students with project-based learning, creative learning and personal learning more than students reported. Additionally, the study found that both students and teachers identified focus was the key part of student engagement.

One strength of this study is that it looked at comparing the students' perspective to the teachers' perspective. It is important to see the discrepancies in views between the two groups. One weakness of this study is that it relied on surveys and interviews for all of its data. The researchers themselves, discussed how they could not be sure what caused the discount between teacher and student responses because they did not observe any classrooms in person.

3. Grundmeyer, T., & Peters, R. (2016). Learning from the Learners: Preparing Future

Teachers to Leverage the Benefits of Laptop Computers. *Computers in the Schools*, 33(4), 253.

<https://search.ebscohost.com/login.aspx?direct=true&db=eue&AN=120213373&authtype=sso&custid=ns017578&site=eds-live&scope=site>

This qualitative study looked at 15 freshman college students, who had been part of 1-1 laptop programs in high school and asked them to provide feedback for teachers on how to improve the effectiveness of using laptops to better prepare their students for

college. Data was collected through purposive sampling and interviews. One of the main findings of the study was that teachers need to know how to use the technology to limit their students' distractions. The students noted that as their teachers became more comfortable with the technology that the assignments became more collaborative and related better to the subject matter. The study also found that there is an implementation dip that occurs when schools increase their technology without also providing the increased professional development required to incorporate the new technology.

One strength of this study was the participant group. By specifically interviewing college students with prior experience with 1-1 laptops in high school, the researchers were able to collect qualitative information that clearly showed some of the concerns. One weakness of this study is the small sample size. With only 15 participants, the study runs the risk of not being accepted as generalizations. To expand this study, it would be interesting to see the perspectives of the 15 students' high school teachers or more students included in the study.

4. Franzoni Velázquez, A. L., Cardenas Peralta, M. C., & Mandujano Canto, J. Á. (2020).

Lessons from the Training and Support of Teachers in the Development of Digital Skills: A case study of @prende 2.0. *Digital Education Review*, 37, 154–171.

<https://doi.org/10.1344/der.2020.37.154-171>

This case study looked at the importance of training teachers to use technology in 13 states of Mexico. The focus was on training 6th grade teachers in how to effectively use tablets provided by the federal government the prior year. Training for all of the states addressed how to use and when to use the tablet, how to solve problems with the tablet, and teaching strategies for using an information and communications technology

(ICT). Nine of the states selected Microsoft for their ICT. Research collected included video and photographs of the sessions, work methods, reports, testimonies, evaluations, and surveys. The case study concluded that more training is required by teachers prior to implementing any new technology. It also determined that in order to be effective the training cannot be generalized, instead it must be tailored to the needs of the teachers.

One strength of this study is the size of this study. 38,941 teachers participated in the study, which gives it more credibility. Researchers were able to identify themes across different socioeconomic and geographically areas due to the scope of the study. One weakness of this study is that each state had the flexibility to design their own plan of implementation. Although is beneficial for reaching the needs of each individual participant, it does create issues when comparing the data between states.

5. Fulgence, K. (2020). Developing digital fluency among teacher educators: Evidence from Tanzanian Schools of Education. *International Journal of Education & Development Using Information & Communication Technology*, 16(2), 158–175.
<https://search.ebscohost.com/login.aspx?direct=true&db=eue&AN=146115624&authtype=sso&custid=ns017578&site=eds-live&scope=site>

This qualitative study looked at how college education students in Tanzania gain digital fluency and other related skills. Researchers completed 1-1 interviews with the 90 participants. This study found that participants gained their digital skills through individual initiative. Participants demonstrated that they sought out additional individualized learning outside their normal coursework.

One strength of this study is that it created recommendations based on their findings that the different universities in Tanzania can implement. One of the weaknesses

of this study is that it is lacking quantitative data on the current technology levels of the universities in Tanzania. When trying to use this study to guide future research in the United States, it is important to consider the technological barriers that the Universities were experiencing.

6. Nisly, L. L., Cecire, S., Friesen, M., & Sensenig, A. (2015). Creating Engaging Assignments. *National Teaching & Learning Forum*, 24(3), 9–11.
<https://doi.org/10.1002/ntlf.30025>

This is a non-research article discusses the varies approaches the faculty of Bluffton University tried to attempt to increase student engagement in their classes. They measured success through if they saw an increase in class participation, attendance, assignment submission. Faculty offered more student choice when selecting their assignments, providing real world audiences and adding oral/acting out presentation options. Faculty saw varying levels of success from their experiments. A teacher who provided learners with choice on completing assignments with a stricter cutoff date reported that students had a positive view of this.

One strength of this article is that it provides a variety of instructional ideas to try and is not subject specific, so it could be adapted to any course. One weakness of this article is that the research was completed with college students. The motivation of college students is different than your traditional k-12 student because there is financial motivation to perform well in college.

7. Kurt, S., & Ciftci, M. (2012). Barriers to Teachers' Use of Technology. *International Journal of Instructional Media*, 39(3), 225–238.

<https://search.ebscohost.com/login.aspx?direct=true&db=eue&AN=78855034&auhtype=sso&custid=ns017578&site=eds-live&scope=site>

This research study was a case study using mixed methods where the researcher sought to identify factors that either obstructed or encouraged teachers to use technology in an elementary school located in Turkey. Qualitative research was collected through interviews and quantitative data was collected through a teacher survey. The survey identified six key obstacles to the teachers using technology in their classroom. These obstacles were lack of space, availability of resources, conditions of the technology, lack of training, low socio-economic status, and overcrowding.

A strength of this study was that its literature review helped guide the research. From the literature review it was clear that lack of training would be one of the key areas. The researcher was able to take previous studies such as Pelgrum's worldwide study, where Pelgrum identified the major obstacles for k-8 teachers using technology is the lack of knowledge/skills and lack of training opportunities for teachers and collect qualitative data that backs it up. This is seen from the quote of one of the teachers where he states, "I am the biggest barrier. I just don't know how to use computers and other complex machines." One weakness of this study is the location and date of the study. Technology changes quickly and although 2012 was not that long ago, in the world of technology it is. The technology available at your average state-run elementary school in India is vastly different than an elementary school in the United States during COVID.

8. Purinton, E. F., & Burke, M. M. (2020). Engaging Online Students: Using a Multisensory Exercise for Deeper, Active Learning. *Marketing Education Review*, 30(1), 29–42.

<https://search.ebscohost.com/login.aspx?direct=true&db=eue&AN=141995621&authtype=sso&custid=ns017578&site=eds-live&scope=site>

This case study research article discusses how a teacher designed a business class assignment for asynchronous learning. Students were assigned a well-established food to create social media videos to promote it. The teacher administered surveys and exams to identify if the assignment increased student engagements. The findings from his survey showed that students believed that this project increased their engagement in an online course and helped increase community through watching each other's videos.

One strength of this study is that it shows a real word example of creating an engaging online assignment in a fully virtual classroom. The author clearly broke down how the assignment was designed and implemented, as well as gave suggestions on how to adapt it for other learning environments. One weakness of this study is that it was designed for an MBA business class. This population of learners are paying for the course which impacts their motivation and engagement.

9. Simard, S., & Karsenti, T. (2016). A Quantitative and Qualitative Inquiry into Future Teachers' Use of Information and Communications Technology to Develop Students' Information Literacy Skills. *Canadian Journal of Learning and Technology*, 42(5).

<https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1130131&authtype=sso&custid=ns017578&site=eds-live&scope=site>

This was a mix method sequential study, looking at college education students and how prepared they were to use an ICT in their future classroom. Researchers completed a large-scale quantitative survey and from the information collected they

administered a qualitative follow up survey. The study found that participants did not feel that their education preparation programs prepared for them to use ICTs. One participant was quoted as saying, "It should go beyond just using PowerPoint."

One strength of this study is that the population group is education major students. On average this is a younger population that has greater exposure to technology throughout their life. If they are concerned about their ability at the beginning of their career, it stands to reason that most older teachers had even less technology training when they completed their education. One weakness of this study is that it was completed in Canada and their teacher education programs may vary from American teacher education programs.

10. Spiteri, M., & Chang Rundgren, S.-N. (2017). Maltese primary teachers' digital competence: implications for continuing professional development. *European Journal of Teacher Education*, 40(4), 521–534.
<https://doi.org/10.1080/02619768.2017.1342242>

This qualitative study examined the experiences of 26 elementary school teachers from Malta to identify how they were using technology and how training could influence them to integrate more into their lessons. Researchers used interviews and then identified which areas of Digital Competency (DC) participants responses belonged to. Within the creation of content and knowledge area, the researchers noted that all teachers were spending more time looking for resources online but that some of the participants stressed that they needed to know the challenges and limitations of the technology in order to create better content from it. The researchers' findings demonstrated a need for a continuous training program focusing on DC for Maltese educators.

One of the strengths of this study is that the researchers asked participants to provide them a lesson and take photos of the technology materials used for their lesson. This provided the researchers triangulation of evidence to back up what participants shared in their interviews. A weakness of this study is that the researchers selected to use convenience sampling. The researchers acknowledged this concern and addressed it by stating that this was just the start of their research.

Research Problem Statement

Public K-12 teachers in the researcher's social circle lack the confidence and training to effectively use an information and communications technology (ITC), such as Microsoft's Educational Apps, within their virtual classroom. This is a significant problem because it impacts their ability to design assignments and activities that will increase their students' engagement.

Relation of Research Problem to Professional Setting

I am a current middle school science teacher who is teaching virtually due to COVID. My school uses Microsoft and although I consider myself tech savvy, I still have spent many hours outside my contract hours on professional development to increase my own confidence in using the various Microsoft Educational Apps. I have had discussions and 1-1 sessions and group trainings to try and help my coworkers increase their confidence in the various apps. My long-term professional goal is to become a technology coach for my district. This research problem is one I would need to address if I were to gain such a position.

Benefits of the Literature Search and Annotated Bibliography

Completing the literature search and annotative bibliography confirmed that teacher training on ICTs is currently lacking. I noticed that most of articles focused on college professors and the student perspective, but more information is needed about K-12 educators. Through

completing the literature search I was able to identify some key vocabulary that I had not previously associated with my research topic. In my own previous education, I had never heard of information and communications technology (ICT) and digital literacy. I had always previously referred to them just as technology. With this new knowledge I was able to further guide my search for additional resources.

References

- Batista, S., Pedro, N., Agonacs, N., Fonte, M., Oliveira, N., & Matos, J. F. (2017). Evaluation of Teacher Training Satisfaction: A Critical Factor for Technology Integration in Higher Education. *Proceedings of the European Conference on E-Learning*, 580–584.
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