

C225: Task 2

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Education-Related Research Topic

My research topic is in regard the effectiveness of online learning versus traditional classroom instruction in the everyday classroom.

Research Problem Statement

There is a lack of personal technology in the average classroom. There is a need for access to technology in order for online learning to be effective. However, there needs to be more than just an increase in access to technology such as laptops or computers because there is also a learning gap between students of all ages and articles in regard to the gap of knowledge. Therefore, including a SMART goal setting, specifically regarding online learning in classrooms and traditional classrooms, and its contribution to encouraging participants to embrace this change as patterns more positively will be explored. Because my research will explore the comparison of traditional classrooms vs online learning the method I am using will be qualitative in most aspects, but may also include mixed methods.

Literature Review

Comparison of Online and Face-to-Face Instruction

In this article, it examines the similarities and differences between one course taken by a student called Foundations of American Education, when offered in traditional face-to-face and online environments. Because good teaching practices are good teaching practices whether the classroom is a physical one or an electronic one students can still respond to questions given by a teacher.

- One strength was the interactions between students and teachers made it difficult to fix or correct issues with technology. Teachers later analyze them and then return to the student with questions or statements that were no longer valuable to the students at that time. . Assignments maintained their integrity, although based on student evaluations from fall 2002 the number of journal assignments dropped significantly in the Spring of that same year.
- One weakness of this article was James Madison University is located in the heart of the Shenandoah Valley in Virginia and predominantly traditional white Christian males but the students in this survey were overwhelmingly female and nondiverse.

Ask an Expert: Online Learning vs classroom learning

This article includes a study by Christine Greenhow, associate professor of educational technology in the College of Education, 2018 Recipient of MSU's Teacher-Scholar Award, who answers questions about online and classroom learning.

- A strength of this article is that Christine Greenhow stated “ Online learning can be as good or even better than in-person classroom learning. The best online learning combines elements where students go at their own pace, on their own time, and are set up to think deeply and critically about the subject matter.”(Greenhow, 2020)
- A weakness of this article was that Christine believes this takes work; we know that pedagogy matters. We face the challenge of access to the technology and social infrastructure needed for virtual education. Students without reliable

devices and the internet struggle in the shift to virtual education.”(Greenhow, 2020)

A Comparison of Student Outcomes with Random Assignments

This article stated that it is possible that a move from in-person classes to online learning can be more cost-effective for students and teachers because there is no need to meet in classrooms. Although there is little to no evidence that school districts can save large sums from online education.

- A strength of this article stated that there was media and technology literature that predated the COVID-19 online delivery of education and many early studies found this didn't affect outcomes when compared to learning in a classroom setting, but Clark(1983) argued that the access to digital media should not have an effect on learning outcomes. When examining the outcomes of students who chose which class to attend, it is difficult to separate the impact of course design from the effect of the student's course preferences.
- A weakness includes that there were many students in the face-to-face sections and online sections who had contact which caused some cross-contamination and bias in the survey. Although there is a possibility for bias participation may lead to student willingness to participate and succeed. For this survey, the participation was lower than anticipated and that could have had an effect on the results.

Online vs Classroom Learning Examining Motivational and Self-Regulated Learning

This article includes information about an online VET course that allows students to control how they learn, they choose the pace, balance, and when they attend the course. In order to succeed in autonomous online learning environments, these students had to be very highly motivated and self-regulated learners.

- A strength was that when an online questionnaire was administered to the face-to-face classroom and online VET students could either access the tool using their mobile phone or administration took place in the IT classroom. They used purposeful sampling to select potential participants and ended up with 577 first-year students, out of a population of 92,125 students in public school VET programs in Catalonia.
- A weakness of this survey was that after the first testing model, simulated the results suggested that the factor of self-regulation had a small regression in its presents and this established that VET students employing different degree programs had different motivational learning strategies whether they chose traditional classroom or online learning.

From Classroom to Online: Comparing the Effectiveness

This article is about how developed and developing countries have adopted online learning as a new way of teaching and learning. The University of Cape Coast in Ghana started implementing online learning following school closures on April 1, 2020, even though not all countries could fully implement online education because of finance and challenges.

- A strength of this article is that classroom learning was more effective than online learning. Even though the student demographic was not very different the findings confirmed this study which was good for the country since online learning only came

about as a safety precaution but was still a viable option for education during their temporary shutdown.

- A weakness of this article were the results exhibited very highly that classroom learning was far more effective than online learning. Students did better academically in the classroom learning rather than online even though the groups were not very significantly different. Additionally, the differences in means of classroom learning and online learning and their significant level.

Online classes versus traditional classes

The study compared the effectiveness of a medical undergraduate, online microbiology course to a traditional in-class lecture course with a qualitative questionnaire that measured the number of students taking at least one online course having the highest level of growth at a rate of 9.3% and showed no evidence of the slowing in the future.

- A strength of this article is that students were exposed to both online and traditional methods of education and had a questionnaire to do a comparison between the two methods rather than having to choose one or the other, as well as all courses online and in person, were taught by the same teaching faculty.
- A weakness of this article is that it is understood that no technology replaces the effects of face-to-face teaching because of the visual and verbal discussion that can happen in real-time. However online mode offers flexibility and students can even download content, notes, and assignments. Because of this fact, 40% of students found they online

material difficult to understand and 42% of teachers found it difficult to clear up doubts for students when working online. However, this was completely different when face-to-face as 64.4% of participants were able to learn more face to face.

Purpose Statement

The purpose of my research study was to identify the concern of face-to-face learning versus online or digital learning with the current atmosphere of the world going more digital and due to COVID-19 needing to be more advanced in this aspect to educate students. There are factors beyond student access to technology or wifi, engagement of students during instruction, and teacher understanding of online learning that need to be addressed. Modifications of access and education need to be explored, which include emotional and psychological aspects as they relate to relationships with technology.

Research Questions

1. How will incorporating SMART goals into educational technology help to improve the current access and education when it comes to online learning?
2. How will teachers and students be held accountable for current engagement levels to improve their learning?

Justification of Research Approach

1. Because of the personalized and situational basis of this unit. I plan to use the qualitative and mixed method of research using the Likert Scale and questionnaires to measure pre and post-educational growth by interviewing students and teachers on student standardized test data from schools.
2. Because of the personalized and situational basis of this unit I plan on using qualitative methods of research utilizing the Likert scale and questionnaires to measure pre and post-educational growth by interviewing teachers and students.

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