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EDLD 5315
Outline Assignment

I. What is the topic of your action research?

Blended learning is often mistaken for simply putting a 1:1 device in the hands of students. According to Horn and Staker (2014), blended learning is any formal education program where the student learns partly online and has some control over time, place, and pace of their learning. There has been a significant amount of research conducted on the effectiveness of blended learning using a station rotation model. It is one of the most popular methods of blended learning that is most commonly used in elementary classrooms. It is a good fit because it builds upon the traditional classroom model of literacy centers or stations (Evans, 2012). Most elementary teachers have a basic knowledge of literacy stations, which makes blended learning with stations easier to implement. My research plan will focus specifically on how a station rotation model of blended learning impacts students' math achievement in a second-grade classroom.

II. What is the purpose of your study?

The purpose of this study is to determine if blended learning using a station rotation model has a positive or negative impact on students' math achievement in the second-grade classroom when compared to students' achievement using a traditional method of math instruction.

III. What is your research question?

How does a station rotation model of blended learning impact students' math achievement in a second-grade classroom?

IV. What is your research design (Qualitative, Quantitative, or Mixed Methods)?

My research design will be Mixed Methods. In Quantitative research design, validity and reliability are of the utmost importance. I will focus on collecting data that accurately answers my research question. Part of my collection will come from student scores and assessments using quantitative data, while the other Qualitative part of my collection will come from students' engagement and ability to orally explain what they are learning in math, as well as their preferences for blended learning stations when compared with a traditional model of instruction. This Mixed Method design is referred to as an explanatory sequential mixed methods design, where I will be conducting and gathering the quantitative research, analyzing the results and then build on those results by using detail through qualitative research (Cresswell, 2008)

a. Why did you choose this design?

I chose the Mixed Methods design because it best aligns with the data that I will need in order to answer my research question. Mixed Methods aligns better with the purpose of collecting data on student preferences as well as data from their assessments.

V. What data will you collect?

I will collect data using formative assessments and summative assessments, as well as collecting oral data from students to determine if they can explain their knowledge and mastery of math skills acquired in math blended learning stations. I will collect feedback from students to determine their engagement level when participating in blended learning stations. To determine the impact of student achievement, quantitative data will be collected in classrooms delivering math instruction using traditional models, not through blended learning station rotations. Qualitative data will be collected from students to determine their engagement level when participating in a math class using a traditional model of instruction.

VI. What types of measurement will you use?

I will collect qualitative data from the piloted math curriculum, Eureka, by using data from end of module assessments, and mid-module assessments. I will collect this data from students in classrooms that participate in blended learning with stations as well as the traditional instruction classroom. I will collect open-ended data from students to determine the students' engagement level in both types of classrooms.

VII. What is the focus of your lit review?

My literature will focus on the impact of blended learning using a station rotation model in the elementary math classroom. My literature review will contain the following topics:

- Types of blended learning
- Advantages of using blended learning with the station rotation model to teach math
- Barriers to Implementing blended learning with station rotations
- How blended learning impacts math instruction in the elementary classroom

Research

Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches*. SAGE Publications, Inc.

Evans, M. (2012). A guide to Personalized Learning: Suggestions for the race to top-district competition. (C. C. Institute, Ed.) San Mateo, CA.

Horn, M. B., & Staker, H. (2014). *Blended: Using Disruptive Innovation to improve Schools*. San Francisco: Jossey-Bass.

Kimmons, R. (2022). Mixed Methods: How does one go about doing good mixed methods research? In R. Kimmons (Ed.), *Education Research*. EdTech Books. https://edtechbooks.org/education_research/mixed_methods