Blended Learning: An Action Research Plan

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Technology has long been a component of the classroom environment; however, its mere presence does not guarantee an enhanced educational experience. Blended learning, often regarded as an innovative approach, empowers students with greater autonomy over their educational journey, which can lead to improved learning outcomes. Although this method is relatively recent and predominantly explored within higher education, the foundational years of lower elementary education play a crucial role in shaping future learning. I believe it is essential to offer young students opportunities for autonomy, as this fosters a robust foundation for lifelong learning.

Fundamental Research Question

My primary motivation for developing my innovation plan is to alleviate the disadvantages faced by some students due to the lack of learning diversity in the classroom. Frequently, students who struggle academically are labeled as at risk of not graduating, resulting in a compounding effect that hinders their progress year after year. I believe that technology can offer solutions beyond the capabilities of a single teacher managing a classroom of over twenty students with diverse abilities, needs, and learning styles.

My aspiration is that this initiative will empower students to maximize their potential while equipping them to thrive in an increasingly technology-driven world. This study aims to tackle these educational challenges and seeks to answer the question: "Can technology play a role in identifying, addressing, and closing learning gaps to enhance student success and improve teacher effectiveness in lower grade levels?"

Summary of the Literature Review

Blended learning offers personalized educational experiences by tailoring instruction to students' strengths and weaknesses through digital tools. While research in higher education is abundant, studies on its effectiveness in lower education settings are limited. The study aims to explore how blended learning impacts reading and mathematics achievement for K-2 students, hypothesizing it will enhance comprehension and retention compared to traditional teaching methods. The review highlights the strengths of blended learning while acknowledging its limitations, such as a lack of practical strategies for overcoming challenges and limited research applicable to local contexts. The current study will focus on effectively integrating blended learning tools in the classroom to support student success.

Study Information

The objective of this study is to identify if technological tools can effectively assist lower elementary students in differentiation and addressing learning gaps. I hypothesize that blended learning will enhance students' comprehension and retention of information by providing diverse methods of instruction, as opposed to the traditional whole-group and small-group teaching approaches currently employed

Research Design

I plan to use a mix of qualitative and quantitative research methodologies. Quantitative research methodologies are concrete and provide an easier way to compare data over time. Whereas qualitative research methodologies provide will provide a deeper understanding of the data collected. Using both will strengthen the validity and accuracy of my findings. It’d help me identify inconsistencies and provide a more comprehensive understanding.

Data Collection and Analysis

Data will be collected through regular quizzes and assessments to evaluate comprehension and improvement. Teacher observations and student feedback will also play a critical role, documented in the form of anecdotal notes (see Appendix A) and brief interviews (see Appendix B). Parental observations (see Appendix C) will further contribute to our data collection efforts. Together, these methods will offer a comprehensive perspective on the effectiveness of the selected technological tools in facilitating personalized learning paths for students.

To thoroughly assess the impact of these technological tools in the classroom, a diverse array of measurement instruments is essential. Pre- and post-assessments will measure knowledge acquisition, while observation checklists will track essential behaviors and engagement levels during instructional practices. Additionally, surveys and questionnaires will capture qualitative insights from students, parents, and teachers regarding their experiences and perceptions.

Analyzing student work samples will enable us to monitor understanding and progress over time, while digital tracking tools will provide data on student activity and completion rates. Furthermore, interviews and focus groups will facilitate in-depth discussions, revealing deeper insights. Maintaining anecdotal notes will ensure comprehensive documentation of observations and reflections throughout the study. This multifaceted approach will yield a thorough understanding of the intervention's effectiveness and highlight areas for improvement.

I plan to initiate this process in September, coinciding with the start of the school year, utilizing the school district's mandatory beginning-of-the-year assessments in both math and reading. Given the age group, this process typically spans about a month to avoid overwhelming

students. During this period, parents will also receive a survey to assess their concerns and objectives for their child.

Following this initial assessment, comprehensive training on technology and applications will be conducted to ensure that students are proficient in navigating these resources, with support from the technology department. This training may take approximately two to four weeks. Once students have demonstrated adequate proficiency with the technological tools, I will begin integrating technology into our learning activities.

Throughout this study, I will maintain anecdotal notes and administer pre- and post-tests for each unit taught. A mid-year assessment to evaluate student progress will occur in December, accompanied by a second survey for parents to identify any changes since the initial survey. Data collected will be analyzed, and results will be shared at the beginning of the second semester.

Sharing and Communicating Results

I intend to present the results of my research to key stakeholders, including the school leadership team, the principal, vice principal, and the PK-2 math and reading coaches. Given the rigid nature of public-school curriculum schedules, these individuals will play a pivotal role in determining whether I can proceed with my innovation plan. Should I deviate from the district's preferred teaching methods, I will need to demonstrate the effectiveness of my approach.

To facilitate this process, I plan to create an engaging presentation that effectively communicates my findings. This presentation will distill key insights and analyses into concise slides, utilizing bullet points, graphs, and visuals to enhance clarity and engagement.

Final Reflection

At the conclusion of the study, I will revisit my initial objectives to assess whether they were met or if adjustments were necessary throughout the process. I will collaborate with our district's reading and math coach to analyze the data, seeking patterns that may provide insight into student behavior and performance during the study. Additionally, with my reflection team, we will evaluate the effectiveness of blended learning by examining the data collected. I will identify any challenges that may have impeded the study's success. Furthermore, I will reflect on my perspectives regarding various aspects of the study, alongside insights gleaned from student interviews and parental feedback. Together, we will determine the necessary changes to implement moving forward.

References

Bernacki, M.L., Greene, M.J. & Lobczowski, N.G. A Systematic Review of Research on Personalized Learning: Personalized by Whom, to What, How, and for What Purpose(s)?. Educ Psychol Rev 33, 1675–1715 (2021). https://doi.org/10.1007/s10648-021-09615-8

Mansouri, N., Soui, M., Abed, M. (2023). Full Personalized Learning Path Recommendation: A Literature Review. In: Hassanien, A., Rizk, R.Y., Pamucar, D., Darwish, A., Chang, KC. (eds) Proceedings of the 9th International Conference on Advanced Intelligent Systems and Informatics 2023. AISI 2023. Lecture Notes on Data Engineering and Communications Technologies, vol 184. Springer, Cham. https://doi.org/10.1007/978-3-031-43247-7_17

Mertler, C. A. (2020). Action research: Improving schools and empowering educators. SAGE Publications, Inc.

Appendix A

Anecdotal Notes Form

Date
Subject/Topic

Student name _____ Observations:	Student name _____ Observations:

Student name _____ Observations:	Student name _____ Observations:
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Appendix B

Student Interview Questions

1. What do you like most about learning online? What do you like least?
2. How do you feel when you have to switch between online lessons and in-person lessons? Is it easy or hard?
3. What do you like best about your online learning activities? What is your favorite part?
4. When you're learning online, do you feel like you're learning a lot, or do you get distracted?

5. Do you feel more excited about school when you get to do things on the computer, or when you're in the classroom with your friends and teacher?
6. Is it fun to use the computer or tablet for schoolwork, or does it sometimes make you frustrated?
7. Do you like using technology to do schoolwork, like watching videos or doing games? Or do you prefer using paper and pencils?
8. Do you like having some lessons online and some at school, or would you rather have all your lessons in one place?
9. How do you feel about having some time to work on your own during online lessons? Is it hard to know what to do next?

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Appendix C
Parental Observation Form

1. How do you think your child is managing the balance between in-person and online learning?

2. Have you noticed any changes in your child's understanding of the material since starting blended learning?

6. Does your child seem more or less motivated to learn compared to before blended learning started?

7. What types of activities seem to engage your child more—online interactive activities or in-person classroom activities?

8. Have you noticed any changes in your child's interest in school or particular subjects since blended learning began?

10. Has your child expressed any frustrations, anxieties, or challenges with the online learning portion?

15. Are there specific challenges you face as a parent in supporting your child's learning in a blended environment?

16. How does your child react when there are problems with technology or when they don't understand something online?

19. What do you think are the biggest benefits of blended learning for your child?

20. Are there any negative impacts you've noticed from blended learning, such as more screen time or a lack of motivation?

21. Do you think your child is learning more, less, or about the same as they would in a traditional, fully in-person classroom?