Exploring the Impact of Blended Learning on Student Achievement

A Review of the Literature

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**Introduction**

In recent years, we have seen a shift from traditional face-to-face instruction to online learning environments, specifically in response to the COVID-19 pandemic. Regardless of the numerous challenges we faced during that time, we were also able to discover the potential of digital learning. Using a model of both face-to-face instruction and online learning, or blended learning, can allow teachers to become learning designers and facilitators to reach each student in ways that traditional teaching has not before (Horn & Staker, 2015). Incorporating online learning into the classroom will also further align education with the demands of the technology-rich 21st century (Shoukat et al., 2024).

As a teacher in a Title 1 school, I believe that blended learning has the potential to significantly improve student achievement. Blended learning offers students the flexibility to engage with content both in and outside of the classroom, which allows for tailored lessons to meet their individual needs. By incorporating technology, students not only develop essential digital skills but also become more independent, taking ownership of their learning. This study will explore how blended learning can have an impact on student achievement by fostering a more personalized, self-regulated, and technology-enhanced learning environment.

**Review of the Literature**

**What is blended learning?**

Blended learning is student-centered learning that combines online delivery of content along with traditional face-to-face instruction. Activities can be online or in a traditional setting in order to create a more engaging experience for students (Shoukat et al., 2024). Students will learning through digital tools such as videos, books and interactive tasks to supplement the direct instruction led by the teacher (Shoukat et al., 2024). Students will also have some control over time, place, path, and/or pace over their learning (Horn & Staker, 2012). This will allow a more personalized experience in which students have choice and ownership over a significant portion of their learning. Students can control what they would like to work on during specific times and the pace of learning will be their own, they may speed through it or take their time (Arnett, 2021). Blended learning has become the “norm” in many higher education institutions due to its facilitation of assigning, grading, and submitting homework tasks (Crosling et al., 2023).

**Rotational Model**

 Station rotation, Lab Rotation and Flipped Classroom approaches all fall under the Rotation Model of blended learning; they are meant to maintain the balance between traditional methods and online learning (İstek Aksak Kömür, Kılınç, & Okur, 2023). In a given course or subject, students will rotate on a fixed schedule or at the teacher’s discretion between learning modalities, at least one being online (Horn & Staker, 2012). It may also include activities like small-group or full-class instruction, group projects, individual tutoring, and traditional pencil-and-paper assignments (Kömür, Kılınç, & Okur, 2023). Station rotation occurs within the classroom, while in a Lab rotation the students will switch between different locations, including a learning lab for online learning (Horn & Staker, 2012). A Flipped classroom model consists of face-to-face teacher-guided practice on campus during the standard school day and online delivery of content and instruction of the same subject after school, often at home (Horn & Staker, 2012).

**Advantages of Using Blended Learning**

Implementing blended learning in the classroom boosts student engagement by combining the flexibility of online learning with the interactive support of face-to-face instruction. Chiun (2021) explains that student engagement is fuelled by motivation and in order for individuals to be motivated to grow three psychological needs must be satisfied. First the need for autonomy or being self-endorsed and self-governed, next the need for relatedness or feeling connected, lastly the need for competence or being effective/capable. Blended learning allows for these needs to be met by both the teacher-led instruction as well as online components where students will have choice, opportunity to feel connected through collaboration and feeling capable by completing work at their individual levels.  In their 2021 research article, Ghani and Taylor explored student engagement in a university-wide blended learning initiative. They found that undergraduate students wanted a change from the traditional learning environments and were open to different ways of engaging in their weekly classes. Ghani and Taylor also confirmed that while graduate students stated that their engagement in their blended learning courses was fueled by the desire to solve tough questions and real-life problems.

Implementing blended learning allows for personalized learning experiences, enabling students to progress at their own pace and tailor their education to better meet their individual needs. When students work one-on-one with a tutor or teacher, results are significantly higher than if they were part of the mass-group instruction due to the fact that pace will be tailored to the individual learner (Horn & Staker, 2015). It is physically impossible for each student to receive one-on-one instruction from a tutor or teacher on a regular basis, but by integrating online learning stations into the classroom setting, students can receive a more personalized learning experience that considers their individual needs and interests (Kömür, Kılınç, & Okur, 2023). Blended learning programs will incorporate adaptive programs in the learning component which will assess students’ knowledge and skills as well as monitor their progress (Brodersen & Melluzzo, 2017). These programs will allow flexibility needed to master content by tailoring pace and difficulty to the student alone (Brodersen & Melluzzo, 2017).

**Barriers to Implementing Blended Learning**

Blended learning requires students to develop strong organizational skills, as they must manage both the online and in-person components of their education. In this model, students are often required to complete a specific number of lessons or modules within a set timeframe, which can be particularly challenging for younger students. These students may struggle with being fully aware of the tasks they need to complete, and the deadlines associated with them. As Celestino and Noronha (2021) discuss, students must be disciplined with their online studies, manage their time effectively, and organize their learning independently. Without clear guidance, younger students can find it difficult to stay on track and meet expectations. While blended learning offers flexibility, it also requires students to take responsibility for their own progress—skills that can be difficult to master without additional support.

Another significant barrier to blended learning is the requirement for both teachers and students to have a certain level of technological knowledge. As Celestino and Noronha (2021) point out, a lack of prior experience with computers or the platforms used in blended learning can hinder the effectiveness of the learning process. For students, unfamiliarity with the digital tools and systems required for completing assignments, participating in discussions, and accessing materials can lead to frustration and disengagement. Similarly, teachers may face challenges in effectively navigating and using these platforms to deliver content, assess student progress, and facilitate interactions. Furthermore, the quality of internet access is another critical factor. Poor internet connectivity can prevent students from fully accessing online platforms, viewing materials, or completing activities, leading to missed lessons and gaps in learning. In regions with unstable or slow internet connections, these technical difficulties can exacerbate the challenges of blended learning, further hindering students' ability to engage with content and participate in class activities.

**Summary**

Blended learning has the potential to significantly enhance student achievement by offering a more personalized and flexible approach to education. By integrating online learning with in-person instruction, students can engage with content both inside and outside the classroom, allowing them to progress at their own pace and take more ownership of their learning. This model fosters greater student engagement by providing opportunities for choice and self-regulation, helping to meet individual needs and learning styles. Research shows that when students are able to work at their own pace, especially with the support of adaptive technologies, their learning outcomes tend to improve (Horn & Staker, 2015).

However, there are several barriers that must be overcome for blended learning to be effective. One major challenge is the technological proficiency required from both students and teachers. A lack of familiarity with digital tools, platforms, and online learning systems can hinder the learning process, leading to frustration and disengagement (Celestino & Noronha, 2021). Additionally, teachers may face difficulties in integrating these tools into their teaching practices, requiring ongoing professional development. Another critical barrier is the need for reliable internet access. Poor connectivity can prevent students from fully accessing online materials, completing assignments, or participating in class activities, which can disrupt their learning and create disparities in educational opportunities (Kömür, Kılınç, & Okur, 2023). Despite these challenges, when properly supported, blended learning offers a powerful approach to meeting the demands of 21st-century education, helping students become more independent and better prepared for the future.

**This Review and the Field of Education**

This literature review contributes to the field of education by examining how blended learning can enhance student outcomes, particularly by providing more personalized and engaging learning experiences. By combining online learning with traditional face-to-face instruction, blended learning allows students to work at their own pace, engage with content in multiple ways, and have more control over their learning. This flexibility helps meet the diverse needs of students and supports both independent learning and collaboration. The review also addresses some of the challenges associated with blended learning, such as the need for students and teachers to have basic technology skills, as well as the importance of strong organizational skills to manage the online components effectively. By highlighting both the benefits and the potential obstacles of implementing this approach, my review provides educators with practical insights into how blended learning can be applied in real-world classrooms to improve student engagement and achievement.

**Strengths and Weaknesses of this Body of Literature**

The literature provides a comprehensive exploration of blended learning, offering a well-rounded understanding of how this instructional model integrates online and face-to-face learning to create more flexible and engaging educational experiences. It emphasizes how blending these elements can enhance both student engagement and achievement by allowing for personalized learning that meets the individual needs of students. The studies reviewed also present a balanced view, not only celebrating the potential benefits of blended learning but also discussing the challenges, such as the need for effective technology use and time management. This comprehensive examination equips educators with practical insights and realistic expectations for implementing blended learning in their classrooms.

While the literature review provides valuable insights into the benefits and challenges of blended learning, there are notable gaps in the research that limit its application to certain contexts. One key weakness is the lack of studies focusing on how blended learning can be effectively implemented for writing instruction, as most of the existing research primarily concentrates on math or reading. This leaves a gap in understanding how blended learning might specifically enhance writing skills, which require different types of engagement and feedback compared to other subjects. Additionally, much of the research is geared toward higher education or older students, with limited focus on how blended learning impacts young elementary students. This gap is particularly relevant for educators who work with younger learners, as the challenges and opportunities of blended learning may differ significantly for early-grade students who are just developing foundational academic skills. The lack of research on these specific areas means that educators may need to rely on generalized findings or adapt strategies without much targeted guidance for these particular needs.

**Focus of the Current Study**

The insights gained from this body of literature will play a crucial role in shaping my action research project, particularly as I explore the implementation of blended learning in the context of writing instruction. While the literature has highlighted the significant benefits of blended learning, such as personalized learning and increased student engagement, it also reveals the need for more targeted research on how this model can be applied effectively in teaching writing. Drawing from the literature, I will focus on creating flexible, technology-supported environments that allow students to work at their own pace while receiving feedback on their writing. Moreover, while the literature mainly addresses older students, I plan to adapt the strategies discussed for young elementary learners, ensuring that my project takes into account their developmental needs and capacity for self-regulation in a blended learning environment. Ultimately, this literature has provided a solid foundation for understanding the potential of blended learning in enhancing writing instruction, and I will use these insights to refine and implement my plan that seeks to improve student outcomes in writing through a blended learning model.

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