Blended Learning in the Gifted and Talented Classroom

A Review of the Literature

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Introduction

By presenting a more personalized learning approach for all students, a blended learning model can transform our educational system into authentic learning environments where choice, ownership, and voice can enhance student learning, increase student engagement, and promote student ownership for independent learning.

Today's students are not different learners, but their learning has dramatically shifted from how they have learned in the past. Motivating students to learn has become a challenge for many educators. Students born after 1995 are known as Generation Z kids (Clark, 2020, p. 4). These learners were born After Google - AG. They have not experienced the world without this massive search engine. They are not necessarily tech-savvy as much as they are tech-dependent. Gen Z learners enjoy teaming, connecting, and intercommunicating with others. They appreciate hands-on learning experiences and learn best from smaller fragments of information (Clark, 2020, p. 4).

In order to motivate and engage these students to take ownership of their learning, each student should receive customized learning that is uniquely individualized for each learner and not a general blanket of information suitable for all (Tucker et al., 2016). Well-implemented blended learning environments allow students to experience the individualized learning they need to succeed and as a result, will take ownership of their learning. Students can experience personalized instruction, and teachers can empower their students in various ways where they can think critically, make informed decisions and impact their global communities in unheard-of ways (Tucker et al., 2016). Online and distance learning has increased significantly since 2000 in the United States. Blended learning environments have contributed to this growth, where

students learn online at least part of the time as they are overseen by an adult in a brick-and-mortar establishment away from home (Tucker et al., 2016).

The author of this literature review is interested in looking at blended learning in a 4th-grade Gifted and Talented classroom to determine how it impacts student ownership. The author currently services Gifted and Talented students in kindergarten through 6th grade and would like to learn more about ways to empower and motivate students to take ownership of their learning and become lifelong learners.

This Literature Review will explore the definition of blended learning and the benefits and barriers of implementing a blended learning initiative that includes a seamless integration of the model to increase student engagement, personalized learning, and ultimately where students can take ownership of their own learning. It will specifically explore and investigate how a blended learning station rotation model impacts student ownership with 4th-grade gifted and talented students.

Review of the Literature

Definition of Blended Learning

"Blended Learning is a formal education program in which a student learns (1) at least in part to online learning, with some element of student control over time, place, path and or pace; (2) at least in part in a supervised brick and mortar location away from home; (3) and the modalities in each student's learning path within a course or subject are connected to provide an integrated learning experience" (Tucker et al., 2016). In a 2011 report on the Rise of K-12 Blended Learning, co-author Michael Horn states that student authority in blended learning is essential (Horn & Staker, 2011). Another critical component of blended learning is making authentic connections between online and face-to-face classroom time (Krueger, 2014).

Types of Blended Learning

Although there are many different types of blended learning models to choose from, the rotation models seems to be the most popular due to the basic structure that aligns with the traditional classroom centers or workstation models where students were divided into small groups and then rotated through the various stations. Below are three of the many blended learning models available where teachers can differentiate instruction for their students.

Computer Lab Rotation Model

In this rotation model, students rotate into a computer lab for an individualized technology portion of the instruction, and upon returning to the classroom, students will follow with a small group or whole group teacher-led instruction period in the classroom (Kazakoff et al., 2017, 4).

Flipped Classroom Model

This approach is where students are introduced to and are allowed to explore new content and concepts through videos or material off-site in preparation for the face-to-face classroom coursework. The practice and completion of the assignments are done in school, where the teacher can provide guidance and assistance on the student's work or project (Kazakoff et al., 2017, 4).

Station-Rotation Model

This model is considered a good fit for elementary schools because it aligns well with the traditional centers or workstations model. Students rotate from one station to another, including a small group working with teacher-led differentiated lessons and another using technology to access online learning programs that target student-individualized skills or content (Kazakoff et al., 2017, 4).

Advantages of Using Blended Learning

The benefits of blended learning in the classroom are innumerable, yet the focus should be on enriching student learning experiences, not technology. By implementing the blended learning model, students will engage in authentic learning experiences where they are provided with the technology to empower and engage in a learning community that will enhance creation, collaboration, inquiry, investigation, and communication (Harapnuik, 2016).

Blended learning is a mixture of face-to-face and online learning that maximizes and promotes student ownership by providing and expanding classroom learning with online investigations (Sukma & Priatna, 2021). Research has noted that if technology tools are implemented in the context of a blended learning environment where the learning is relevant to the students and connected to the real world, these innovative tools can work effectively (OECD, 2015; Harapnuik, 2020). An additional benefit of using a blended learning model would be that educators could use actionable data to drive instruction, group students, and monitor their projects in actual time (Prescott et al., 2018). This would help educators know precisely how to help students, personalize instruction, hold them accountable, and allow them to take ownership of their learning (Edgenuity, n.d.). This real-time data can assist educators in differentiating instruction based on student progress (Prescott et al., 2018).

Unlike other district initiatives, blended learning is an essential redesign of instructional approaches that focus on college and career readiness (Bailey et al., 2013). It is the opportunity to develop schools that personalize teaching, accelerate learning, and are more productive for students and teachers by providing the appropriate resources and interventions at a suitable time for each student (Bailey et al., 2013). Instead of using technology to consume information, educators can create opportunities for students to use technology to make their thinking visible

(Clark, 2020, p. 67). Students can creatively use technology to illustrate their thinking in authentic and affluent ways (Clark, 2020, p. 66).

The blended learning model is uncomplicated and cost-effective for districts to implement seamlessly. Teachers can create a blended learning environment with flexible workspaces that lend themselves to student collaboration and online learning by shifting furniture to accommodate the setting (Horn & Staker, 2015, p. 209). Schools with 1:1 devices for students do not have to purchase additional resources to implement this model.

Indian Creek School in Crownsville, Maryland, which adopted and implemented blended learning, reported that students developed the confidence to engage in new ideas deeply. They reported that students increased their collaboration abilities with other students and teachers and developed 21st-century learning skills. Blended learning provided students with individualized content, cross-curricular connections, and the ability to explore their interests and passions more innovatively and authentically than traditional classroom methods (Allen, 2017). A meta-analysis by The U.S. Department of Education (2010) reported that online classes (blended or totally online) performed significantly better than students with face-to-face instruction (U.S Department of Education, 2010; Bailey et al., 2013).

Harapnuik stated that when students are allowed to take control of their learning experiences, they learn to make meaningful connections and gain life-changing knowledge that will inspire them beyond the classroom (2017). Allowing learners to choose their learning outcomes and select authentic projects that inspire their passions will help them grow and keep them motivated and engaged in their learning (Harapnuik, 2017). Creating nurturing environments and supporting the learner's natural curiosity will have a powerful impact and motivate them to become independent lifelong learners. The impact of giving learners choice,

ownership, and voice in authentic learning environments can engage and inspire them to dive deeper into their own learning and grow their learner mindset. Equipping them with these opportunities will extend the possibilities for authentic learning (Harapnuik, 2017).

Blended learning provides a more significant opportunity that has previously not existed in the traditional educational system where it has the potential to transform the factory-like structure from our current traditional system into a more student-centric, personalized, more productive model with better student results (Horn & Staker, 2011). Students will receive a higher quality learning experience and frequent and timely feedback on their performance in classwork or online projects (Horn & Staker, 2011).

Teachers will embrace a new role as facilitators. No longer will they be just lecturers or learning designers but knowledge keepers and strategic instructors that target assignments for the needs of each individual student (Krueger, 2014). In their report on DC public schools, Lautzenheiser & Hochleitner (2014) stated that blended learning educators focused on creating student-centered, engaging learning experiences rather than simply using technology with their students. They concentrated on consistently making learning more relevant, engaging, and challenging for their students. These educators found new and innovative ways to teach students who struggled their whole lives in a way that made sense to them. They used technology to blend face-to-face instruction that was challenging and exciting for their students, empowering them to take ownership of their learning (Lautzenheiser & Hochleitner, 2014).

Barriers to Implementing Blended Learning

To properly implement a blended learning environment, several components must be considered. The organization's culture is key in sustaining a successful implementation of a blended learning model (Horn & Staker, 2015). Having core value commitments from the entire

campus is essential. Equity, innovation, support, and collaboration also contribute to the school culture. The campus culture can intensify the good in a school with a good culture and the bad in a lousy culture (Horn & Staker, 2015).

Goals must be established, and extensive ongoing professional development must be delivered to provide all educators with the support and training needed (Lautzenheiser & Hochleitner, 2014).

To successfully implement a blended learning model, districts must have a solid, robust, secure, and strong technology infrastructure. The Wi-Fi connection must be able to handle the load of the connection of all of the student devices throughout the learning day. A fast, reliable, affordable connected campus is necessary (EDUCAUSE Review, 2021).

Empowering Learners to Take Ownership of Their Learning with a Station Rotation Blended Learning Approach

Researchers like John Hattie (2008) and Michael Fullen (2015) have shown that for technology to enhance student ownership and dramatically impact the learning environment, the focus needs to be on building student learning first. The OECD reported that in the study of evidence on the impact of computer use on student performance, Hattie and Yates reported positive effects when students were allowed to use technology to extend study time and practice. This gave them ownership and control over the learning situation during the collaborative learning that was taking place (OECD, 2015). “The Carpe Diem Collegiate School in Yuma, Arizona, ranked first in the county in student performance in math and reading and ranked among the top 10 percent of Arizona charter schools” (Horn & Staker, 2011). Rocketship Education Elementary Charter School reported similar results as Carpe Diem using a blended learning station rotation model that facilitated in the closing of the achievement gap for

low-income Hispanic students in San Jose, California (Horn & Staker, 2011). Another example of promoting student ownership was a pilot program of the blended learning model at KIPP Liberation in 2016, where a sixth-grade student, Pharen, reported how she raced through her assignments and then sat bored for the remainder of the class. She reported how she was getting the correct answers but did not see the point in doing the work, so she was not getting anything out of it. Once the school implemented the blended learning model, Pharen benefited immensely and found her voice and purpose as she completed her assignments and projects. The immediate feedback and freedom in pacing impacted her, and she was able to take ownership of her learning and make connections with the content in her coursework (Raise your hand Texas, n.d.).

"A four-year U.S. Department of Education evaluation of adolescent literacy programs showed that students in Newark, New Jersey, Springfield Chicopee, Massachusetts, and the Ohio State Department of Youth Services who used Read 180 significantly outperformed other students" (Bailey et al., 2013).

Research has shown that the implementation of blended learning in high school and higher education supported increased motivation and obtained more significant resources than students in traditional classes. Students self-reported receiving more personalized learning with a greater variety of courses using the blended learning approach (Kazakoff et al., 2017, 4). According to the recommendations in the OECD report, active learning, hands-on experiences, providing students with the ability to control pacing and learning, project-based learning, and giving the students choice, ownership, and voice through authentic learning opportunities are the things that made a difference in students taking ownership and led to enhancing student learning (Harapnuik, 2017). Adding the technology to empower ownership and enhance the student's experience with creating products, collaborating with peers, and communicating with classmates

as they worked collaboratively on projects made a difference and allowed them to demonstrate their learning and achievement (Harapnuik, 2017).

Studies have shown that blended learning increases student ownership by allowing them to work at their own pace with unlimited access to all learning resources and learning materials (Sukma & Priatna, 2021). Students also reported that having the freedom to work collaboratively and at their own pace empowered them to use critical thinking skills to make significant academic decisions which develops essential 21st century skills (Sukma & Priatna, 2021).

In a study of Self Regulated Learning, Robert Sternberg regards student ownership as a metacognitive, strategic action where students who prefer to learn in their own way are motivated to take ownership of their learning rather than having a teacher tell them what to do and how to do it (Stoeger & Zeidner, 2019).

Summary

Based on the exploration and information gathered, a blended learning environment will increase student engagement, personalize learning and enhance student achievement. After investigating these ideas, the case is that a well-implemented blended learning model allows educators to customize instruction and empower students to the extent that it can transform our current educational system into a genuinely authentic learning environment where learners are given opportunities to engage and experience a personalized curriculum (Tucker et al., 2016). By providing learners with choice, ownership, and voice in an authentic learning environment, learners can become more student-centric and take responsibility for their own learning. As a result, students in these types of environments are more productive and successful in their educational careers (Harapnuik, 2017). Tony Wagner and Ellen Galinsky both suggested specific skills that students need to succeed in the future. The essential skills they addressed are critical

skills for all learners to develop as they become self-motivated, independent, lifelong learners (Wagner, 2009) (Galinsky, n.d.). Our goal as educators should be to develop these skills in our students by asking questions that will promote interactive thinking and self-interest in what students are learning. Suppose we focus on our questioning and guide our students to take ownership of their learning by making personal connections where they can think outside the box, explore, experiment, and become problem-solvers in an authentic learning environment. In that case, we will create opportunities for them to become systems thinkers ready for the creative global economy. For educators, it's more than just teaching the standards; it's about guiding learners to take ownership of their learning and providing them with opportunities to think critically, work collaboratively and analyze and synthesize information to make innovative influences in their global communities.

Educators have a responsibility to their students to provide them with authentic learning environments rather than try to focus on the technology itself. Educators must give learners control, ownership, and voice in an authentic learning environment that will allow them to connect to their learning in a personal and meaningful way. According to Harapnuik (2016), educators should provide students with opportunities to create, collaborate, and communicate and enable them to learn in every situation. Educators must enable students to delve deeper into the content by providing opportunities for critical thinking, communication, collaboration, and creation rather than just focusing on the delivery of the content in their classrooms (Harapnuik, 2016). As a result, students will increase their ownership of their learning.

This Review and the Field of Education

This literature review is aimed to investigate the impact of a blended learning station rotation approach in a 4th-grade gifted and talented classroom. The intent is to provide an

overview of blended learning and the advantages and disadvantages of implementing this model seamlessly in schools which could aid teachers in motivating and empowering students to take ownership of their learning.

The steps to completing this literature review about the impact of a blended learning station rotation approach in a 4th grade gifted and talented classroom were (1) identifying articles on blended learning that focus on increasing student ownership specifically within the elementary grades. This research aligns with my innovation plan and concentrates its attention on my 4th-grade gifted and talented students, (2) analyzing the definition of blended learning, (3) investigating information about the advantages and disadvantages of implementing a blended learning model, (4) exploring information about the impact of blended learning station rotation approach in a 4th grade gifted and talented classroom, (5) analyzing and synthesizing information about student ownership in blended learning environments, (6) formulating a conclusion about the information gathered.

This literature review adds to the field of education by outlining the benefits and challenges of blended learning and its impact on students' independent learning at various grade levels. This information will not only inform my study but will also inform anyone else who is researching information on a similar study.

Strengths and Weaknesses of this Body of Literature

With the rapid evolution of technology and the focus on enhancing student learning in innovative and engaging ways, I was able to find a wealth of information on the broad topic of blended learning for elementary, middle, and high school settings in all content areas. Strengths of the literature include information on how to enhance student achievement, promote student ownership, and create lifelong learning for all students by implementing a blended learning

model. The literature also focuses on various challenges that should be considered when implementing a blended learning model. Weaknesses of this literature include a lack of information on 4th-grade, specifically gifted and talented students, and how blended learning impacts student ownership of independent learning. Although I was able to find literature on gifted and talented students, none of the literature supported how a blended learning station rotation model impacts students taking ownership of their learning. It should be noted that although specific information was not found to support my action research question, an abundance of literature was found to support how a well implemented blended learning model can promote students taking ownership of their learning in elementary schools and correlations can be made to support me research.

Focus of the Current Study

My goal is to explore how to use action research to clarify the problem and apply practical measurement strategies that will help measure the impact of my innovation plan in my digital learning environment to assist in implementing blended learning within my organization and the field of education.

This information will inform my action research and examine the following question: How does the use of a blended learning station rotation model impact student ownership with my 4th-grade gifted and talented students?

Despite not finding any research on my specific action research question, I found a plethora of information sharing the advantages of student ownership in elementary, high school, and higher education settings. This information will inform my study with 4th-grade gifted and talented students, and the results of my action research will contribute to the field of education and add to the literature because there is not any on my specific research question.

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