Engaging Middle School-Aged Students in the Humanities Using Non-Digital Game-Based Learning

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A capstone projected submitted to Thompson Rivers University in partial fulfilment of the requirements of the degree of Master of Education.

Presented April 3, 2022

Abstract

This paper is set within the context of my experience as a Grade 7 teacher in British Columbia and as a student in the Master of Education program. During my career, I have had the opportunity to teach Social Studies and Language Arts to students using non-digital game-based learning through an Ancient Civilization Simulation Game. Through my journey as an educator, I have come to realize that non-digital game-based learning provides a meaningful opportunity for middle school-aged students to learn about the humanities subjects in a way that is fun and collaborative. In this paper, I claim that non-digital game-based learning is the preferred pedagogical approach for teaching the humanities subjects to middle school-aged students because it is engaging, builds student collaboration and self-efficacy, and is accessible to all school communities. Evidence illustrates that game-based learning engages students in curricular material in an exciting format, student participation in non-digital game-based learning can lead to increased collaboration and self-efficacy, and that a non-digital game format can have the same benefits of game-based learning while being flexible to the needs of diverse classrooms and school communities. The claims demonstrating the strength of non-digital game-based learning as a pedagogical practice are further explored in my application, in which I share my experiences facilitating an Ancient Civilization Simulation Game in my Grade 7 classroom. I advocate for a non-digital game-based learning approach to be used in the teaching of the humanities with all middle school-aged students.

Keywords: non-digital game-based learning, game-based learning, middle school, humanities education, social studies, language arts

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Chapter One: Introduction

In this chapter, I explain my interest in the topic of my Capstone paper and how this topic connects to my learning as a student in the Master of Education program at Thompson Rivers University. Next, I explain my interest in connecting board games to my pedagogical practice, as well as the significance of my topic in a local and global context. Finally, I illustrate my argument and supporting evidence, and conclude by outlining how my paper will proceed.

My Teaching and Learning Journey

I grew up in a household where I had very limited access to cable television and the Internet, and when I was a child, my parents constantly encouraged me to creatively fill my free time. One of my favourite ways to do so was, and continues to be, playing board games. I sincerely enjoyed the collaborative nature of working with others to engage in storylines, solve problems, and complete challenges within these games that were intellectually stimulating, competitive, and fun. My love of board games made its way into my academic life, as I recall taking any opportunity to integrate board games into my assignments in elementary school. These projects included a sports-based Monopoly-type game that I designed as a personal enrichment project when I was in Grade 4, and a question-and-answer game show-themed geography presentation about Indonesia that I created in Grade 6. As my academic life continued and my responsibilities became more demanding, the opportunities to unite my learning with my love of board games were replaced by university applications, work experience, and exams. As I proceeded into my adult life in search of academic excellence and a career, my love of games fell into the distant world of occasional hobbies.

I had never contemplated connecting my interest in board games to my vocation until I began teaching Grade 7 at a new school in the fall of 2019. I was intrigued by a resource offered

by my colleague to facilitate my teaching of the Social Studies and Language Arts curriculum. This resource was a non-digital game-based learning (NDGBL) experience about the emergence of ancient civilizations. The unit plan that I was provided for this game was open-ended and left up to my professional interpretation, both as an educator and board game enthusiast. My exploration of this ancient civilization game with the class was an exciting, memorable, and educational adventure through non-conventional pedagogical practice and inquiry-based learning for everyone involved. I loved the experience of learning through inquiry with my students within the structure of a simulation game, and I was awestruck by the deep emotional investment my students felt about their learning as it connected to this game. As many of my students left my classroom in June stating that this game was their favourite and most memorable learning experience in all of elementary school, I knew that this teaching tool that I had inherited required preservation in my pedagogical practice.

As I began the Master of Education (M.Ed.) program at Thompson Rivers University, I was immediately presented with the opportunity to further my interest in NDGBL when completing my Research Methods course. My focus on NDGBL in this course led to a deep exploration of the literature surrounding both digital and non-digital game-based learning, which inspired further personal contemplation of how I could maximize the efficiency and potential of NDGBL in my classroom. During my Special Topics: Inquiry course, I engaged in deep reflection and discussion with peers on how my conduct of NDGBL in the classroom could be the most meaningful, authentic, and engaging for students as possible while still fulfilling the requirements of the curriculum. Finally, my learning in the Diversity course sparked my own reflections of how I could welcome learners of all abilities, backgrounds, and life experiences into my classroom through relevant and accessible learning opportunities. Through my learning

and reflections, I have come to realize that NDGBL is an effective method through which these goals can be achieved in any classroom.

Significance of Non-Digital Game-Based Learning

This topic is significant because NDGBL is a valuable teaching tool that can and should be used to meaningfully connect students with their learning in our increasingly diverse and complex world. Non-digital game-based learning provides a unique learning experience for students that presents curricular material through a method that is vastly different from traditional approaches to teaching and learning. The excitement surrounding the format of NDGBL provides opportunities for all students, including reluctant or differently-abled learners, to engage with curricular material and build valuable skills in an engaging and authentic way. These skills extend beyond academic learning to support the growth of students as whole individuals. Through NDGBL, students can develop and build valuable communication, critical thinking, and collaborative skills, which can be used in the rest of their academic careers and adult lives. The use of NDGBL in the classroom can support the next generation of students in becoming motivated and creative problem-solvers who are committed to lifelong learning.

Presenting the Argument

In this paper, I argue that NDGBL is the preferred pedagogical approach for teachers to meaningfully engage middle school-aged students in the humanities subjects. The first reason is that game-based learning (GBL) is an engaging instructional strategy that captivates students' attention. Research investigating GBL in elementary schools has demonstrated its capacity to be both exciting and educational. As examined in studies such as Avdiu (2019), GBL allows for student engagement in meaningful problem-solving while building knowledge and skills in one or more subject areas (McCall, 2012). Second, participation in GBL leads to increased

collaboration and student self-efficacy in classrooms where it is utilized. Research illustrates that the collaborative nature of GBL allows for students to learn together in a way that results in more efficient learning of curricular material; it can lead to higher-level thinking and stimulate student interest in learning more about the game topics (Cicchino, 2015; Kuo & Hsu, 2020). Evidence also suggests that GBL is also linked to increased student self-efficacy when compared to traditional learning experiences in the classroom, as outlined in studies such as Lu and Lien (2020). Finally, NDGBL allows for all students in diverse classrooms to experience the benefits of GBL without the drawbacks associated with digital gaming. Non-digital game-based learning holds the advantage of not requiring the specific technology necessary for digital GBL, which can pose financial and logistical challenges to teachers in public school systems and their associated communities (Zagal et al., 2000; Zagal et al., 2006). Von Gillern and Alaswad (2016) explain that the increased flexibility and customizability associated with NDGBL experiences allows for educators to utilize this pedagogy in a way that meets the needs of all learners in a diverse classroom community.

Overview of Paper

After the conclusion of this introductory chapter, the second chapter of my paper is a literature review investigating the academic, social and emotional benefits of digital and non-digital GBL, and explores the accessibility of NDGBL in diverse school communities. In the third chapter, I discuss the application of my topic in my classroom through teaching my students Social Studies and Language Arts with an Ancient Civilization Simulation Game. Lastly, I conclude my paper with a discussion of the implications of NDGBL integration in the classroom, and a final summary.

Chapter Two: Literature Review

In this chapter, I begin by defining terms that I am using throughout the literature review. Next, I outline my argument and the evidence that supports the three main themes of my argument from the literature. The themes are: game-based learning and student engagement; game-based learning, collaboration, and self-efficacy; and non-digital game-based learning in diverse classrooms. Finally, I conclude by summarizing how my argument connects to the literature.

Definition of Terms

Game-based learning can take on many forms in the field of education, and as such, relevant terms utilized in this literature review must be defined. Game-based learning (GBL) is defined as gameplay that involves elements of curricular content and competencies with the purpose of meeting prescribed learning outcomes (Shaffer et al., 2005). While GBL can and often does involve playing games on a digital platform, it is important to distinguish the difference between digital and non-digital GBL. Digital game-based learning is defined as game-based learning that requires the use of a technological device, such as a computer, smart phone, or tablet, to participate. Non-digital game-based learning (NDGBL) is defined as game-based learning that does not require the use of a technological device or program to participate.

Engaging Students in Game-Based Learning

Research has demonstrated that game-based learning in digital and non-digital contexts can be an effective pedagogical approach when used meaningfully in a classroom setting (Cicchino, 2015; Eseryel et al., 2014; Lu & Lien, 2020; Wang & Zheng, 2020). Game-based learning allows students to engage in meaningful problem solving while building knowledge and skills in one or numerous subject areas (McCall, 2012), in a way that is “fun and productive”

(Avdiu, 2019, p. 196). This section explores how the qualities of GBL are effective in its use as a pedagogical practice in the classroom, and effective in the purpose of teaching students the humanities subjects.

Game-Based Learning in the Classroom

At its core, learning about academic topics in the classroom through gameplay is a fun and memorable learning experience for students. First, many students already hold positive associations with playing games, and this can be used to the advantage of educators. Avdiu (2019) explains that combining students' natural inclination to play with learning outcomes results in successful learning experiences. Students become more engaged during gameplay than when compared to traditional methods, and "feel that they are having fun while they are learning" (Avdiu, 2019, p. 203). Educators should use the fun elements of gaming to their advantage when designing curricular materials for GBL experiences. Tobias et al. (2014) outline how educators can be strategic in their inclusion of educational aspects into game experiences. When achieved, students will become motivated to meet educational outcomes through goals reached while progressing through gameplay. Another aspect of GBL that makes it fun for students is the opportunity for them to feel power and control within the scope of the game that they are playing. For example, Pivec et al. (2003, p. 219) explain that certain games are more fun for students to play when "the learners are the ones making the decisions and choices", such as moving forward in a storyline through solving puzzles or succeeding in challenges. Von Gillern and Alaswad illustrate that "through game-based learning, a higher instructional value of educational activities is achieved when students can experience learning that is personally more relevant and satisfying" (2016, pp. 8-9). The intriguing and exciting aspects of gameplay in the classroom supports students in holding positive attitudes about game topics.

A second aspect of GBL that makes it so engaging is that it allows students to learn in a productive way that is highly interactive and experiential. As students engage in authentic tasks, Ucus (2015, p. 402) explains that they are able to experiment with their learning in a low-risk way, in a creative environment where "questions and humor" are encouraged. As a result, the game-based nature of the learning tasks has the power to create a positive and welcoming learning environment for all students. A second benefit of the interactive format of GBL is that students often learn curricular material more deeply and meaningfully than they would through traditional educational methods of memorization and recitation (Ho et al., 2022). These activities include collaboration, research, and discussion about game topics while progressing through GBL experiences. These features are highly attractive to students as they offer reprise from traditional worksheets and written assignments. Chee et al. (2014, p. 301) elaborate on the actions performed when engaging in GBL, explaining that "good games develop situational know-how: the capacity to act in contextually appropriate and informed ways". Through necessity of achieving success in gameplay, students become engrossed in the learning material and develop additional skills in the process.

Research suggests that the appeal of GBL experiences in the classroom often leads to increased motivation for learning. Mozelius et al. (2017) explain that investment in gameplay can motivate students to engage in further learning about game topics. Games often introduce "a theme, a technique or a concept" that becomes more appealing as students become more invested in their success in the GBL experience (p. 32). As a result, curricular content is made more attractive, and students end up taking initiative to learn more about the topic on their own. The various ways that students interact with GBL can also increase their motivation for learning. Eseryel et al. (2014) illustrate that when students are presented with new and challenging

situations, they are motivated to continue learning because of their natural inclination for curiosity and problem-solving. As students gain confidence in their ability to solve problems through gameplay, they become even more motivated to continue with the GBL tasks. Eseryel et al.'s research outlines the three aspects of GBL that keep students motivated and engaged. These aspects are the interactions between the players and the game, the interactions between the players and the storyline, and the interaction between the players and each other. When successful, these interactions work in balance with each other to keep students interested and motivated to continue playing the game, and consequently, continue learning.

The connection between GBL and student engagement has been demonstrated by highlighting the reasons why GBL is a pedagogy that students find interesting and enjoyable. The objectively fun aspects of gameplay, the hands-on nature of GBL, and student buy-in keeps student motivated and on task to fulfill both game and curricular goals.

Game-Based Learning with the Humanities Subjects

While GBL can and has been used in virtually all academic subject areas, this section examines the use of GBL in the humanities subjects of Social Studies and Language Arts. Within these subject areas, research suggests that storyline-based games are the most successful type of GBL because of the immersive and authentic experience that they offer learners (Eseryel et al., 2014; Mozelius et al., 2017; Ucus, 2015). Zin et al. (2009) explain that in general, successful GBL experiences must be immersive and enjoyable, otherwise, students will lose interest in gameplay. Mozelius et al. outline that the best type of GBL experiences concerning historical topics should "enable tangential learning where the gaming sessions could be seen as appetizers for further and deeper learning" (p. 29). Humanities-based GBL can been used successfully in both digital and non-digital formats.

When used appropriately, digital GBL experiences can be highly successful with teaching the humanities due to the opportunities that their technological basis can provide. Mozelius et al. (2017) explain that when digital GBL activities are made easy to acquire, install, and use, they can be very useful tools for teachers who are comfortable with supporting students in their technological gameplay. According to Zin et al. (2009), the complex features associated with the devices available for digital gaming can also improve the educational experience for learners. For example, inclusion of three-dimensional technology and other multimedia can be used to the advantage of educators to intrigue learners and improve learning about historical topics. The use of this technology could animate historical events and figures, or embed other multimedia such as videos to attract and adapt to the needs of a diverse group of learners (Chua et al., 2015). An additional benefit of using digital games to teach the humanities is that students can continue playing digital games at home when sufficient resources are available and when game experiences are more time-consuming (Mozelius et al., 2017). In the correct circumstances, digital GBL demonstrates the capacity to enhance the learning of the humanities in an exciting and interactive way.

Research has illustrated that the use of NDGBL in the humanities can present the same benefits of digital GBL without the constraints and challenges associated with games that require technology for participation. Non-digital games are also free of the burden of required technological knowledge to bring them into a classroom or school, compared to digital GBL, which requires teacher familiarity with technology for successful implementation (Mozelius et al., 2017; Von Gillern & Alaswad, 2016). This could mean that GBL experiences could be more easily brought into the teaching of the humanities in a non-digital format.

The use of GBL in the humanities has been explored in this section, investigating the use of both digital and non-digital GBL experiences to teach these subjects. The variation available in the chosen format of GBL creates immersive, authentic and engaging learning opportunities for students.

Game-Based Learning, Collaboration, and Self-Efficacy

While research has demonstrated that GBL is an effective tool to meet curricular goals, it also provides opportunities for students to grow in their capacity to work with others to accomplish group goals and develop a positive sense of self. Specifically, GBL has been found to support the growth of student collaboration skills (Avdiu, 2019; Cicchino, 2015; Wang & Zheng, 2020) and self-efficacy (Lu & Lien, 2020; Meluso et al., 2012). In the context of this literature review, self-efficacy is defined as "an individual's belief in his or her innate ability to achieve goals" (Wang & Zheng, 2020, para. 6). Development in these areas from GBL can produce confident students who are able to work collaboratively with others, and thus are better prepared for adult life.

Collaboration is an important skill that students can develop through continued engagement with GBL, and the collaborative nature of GBL experiences can lead to various positive learning and experiential outcomes. Research has demonstrated that social interactivity, such as collaboration and competition that occurs during GBL "plays an important role contributing to learners' motivation, engagement, and development of complex problem-solving competencies" (Eseryel et al., 2014. p. 51); it also helps learners build knowledge together (Cicchino, 2015). Students value peer discussion when developing gameplay strategies (Meluso et al., 2011), and collaboration between students can lead to faster understanding of how the game is played so that more efficient learning can take place (Buffum et al., 2016, p. 21). This

collaboration often leads to “a sharing of best practices” among students as GBL occurs in a classroom, so that students are incentivized to work together to play the game more successfully (Buffum et al., p. 27). Collaboration can also result in increased enjoyment of gameplay, as students who are having fun while learning can engage with their peers in a play-oriented manner (Avdiu, 2019). As explained by Kuo and Hsu (2020, p. 80), “collaboration and communication are among the twenty-first century essential skills [for] students”, and GBL is a fantastic platform through which skill development in this area can occur.

Research has linked GBL to increased self-efficacy in students when compared to traditional learning experiences that typically occur in a classroom (Lu & Lien, 2020; Wang & Zheng, 2020). Meluso et al. (2011, p. 498) explain that “academic self-efficacy has been found to be an important mediator of students’ learning behaviors”: with increased self-efficacy, student effort in learning and approaching GBL improves. Students that already have strong perceptions of both learning and playing typically demonstrate the highest self-efficacy when approaching GBL compared to peers who hold a strong perception for playing, but weak perceptions for learning (Lu & Lien, 2020, p. 1902). Wang and Zheng (2020, para. 22) explain that “better learning results” occur in groups of students with high self-efficacy. It is clear that student self-efficacy of learning can be developed in GBL, and in turn, student groups with high self-efficacy can result in more successful GBL experiences.

The connections between GBL experiences and the development of student collaboration skills and self-efficacy has been demonstrated. Compared to traditional academic pedagogies, GBL offers opportunities for development of these skills in students, better supporting 21st century learning goals and student preparation for adult life.

Game-Based Learning in Diverse Classrooms

Non-digital game-based learning holds several advantages over digital GBL that make it more desirable and accessible to use in diverse classrooms. These advantages include NDGBL's financial and technological accessibility and its customizability. The role of teachers in the facilitation of NDGBL also plays a major role in its degree of its success in the classroom.

Disadvantages of Digital Games. Most early studies and current work on this topic focus on GBL that is digital in nature; this type of GBL utilizes game software on a computer to achieve learning outcomes. While digital GBL can be an intriguing and effective educational tool, it is not always a sustainable pedagogy in public school classrooms. First, there are often significant financial costs required to provide and maintain requirements of digital GBL activities (Zagal et al, 2000). The single-person nature of the use of technological devices can also limit the amount of collaborative thinking and learning taking place during digital gameplay (Zagal et al., 2006). The structure of digital GBL itself can also present challenges in constraining curricular material to the confines of a digital game experience. Chee et al. (2014) explain that these digital platforms often "over-structure and over-simplify" (p. 302) educational topics, sacrificing inquiry for more structured gameplay. The training required to implement and facilitate digital GBL experiences can also provide a major barrier to schools that do not have the resources or time available to support staff in facilitating and maintaining GBL (Chee et al, 2014). For many school communities, the many demands and resources required for digital GBL is too challenging for successful implementation.

Advantages of Non-Digital Games. Non-digital game-based learning holds the advantages of its accessibility and its ability to better able to support collaborative work compared to digital GBL. As previously discussed, collaborative learning is one of the major

benefits of engaging students in GBL experiences. The collaborative tendency of NDGBL's design can lead to deep thinking and stimulate student interest in learning more about game subject areas (Cicchino 2015; Kuo & Hsu, 2020). While the positive collaborative outcomes of GBL are apparent, the ability for collaboration to occur successfully is dependent on the model of GBL or NDGBL that is selected by the educator.

Von Gillern and Alaswad (2016) illustrate that one major advantage that NDGBL holds over digital GBL is its customizability for specific learning environments. Educators can modify the structure of an existing NDGBL experience to fit the curricular framework of their grade level and jurisdiction. This flexibility also offers the opportunity to change aspects of the game based on the needs and preferences of specific learners. The adaptable nature of NDGBL presents an ideal pedagogy for teachers wanting to accommodate diverse classes or include multiple subjects in their game facilitation.

Role of the Teacher. Teachers play an important role in successfully implementing GBL experiences in diverse classrooms. If teachers are open to pedagogical risk-taking and are exposed to relevant professional development, they are more likely to be successful in GBL facilitation as "it is practice that makes practice" (Chee et al., 2014, p. 312). Another aspect of teacher influence on GBL experiences is in the design of the game itself; GBL frameworks that feature objectives with clear-ended tasks are more successful compared to games with open-ended designs (Kuo & Hsu, 2020). Teachers should be mindful that the types of GBL experiences that they are selecting for their students are appropriate for their students' interests and abilities. Ucus (2015) explains that GBL can be used in a variety of contexts depending on each learning situation with varied purposes, such as increasing student motivation about learning topics, fostering comprehension of learning, or to encourage reflection. The role of the

teacher as a facilitator in GBL can also impact the amount of student learning that takes place and the enjoyment of the games played. McCall (2012, p. 23) explains that "active, purposeful teacher-guides are the critical conductors of this whole process of inquiry, analysis, and evaluation" within the scope of GBL; teachers must be active mentors for students as they navigate the game process. This might include the teacher taking actions to enhance student feelings of learning, playing, and self-efficacy; more research is necessary to determine specific actions for successful implementation (Lu & Lien, 2020). Teachers play a critical role in the successful facilitation of GBL in diverse classrooms and school communities, and their success is impacted by the support of their school leaders and available training.

The advantages that NDGBL holds over digital GBL has been demonstrated, and the role of the teacher in successful implementation of GBL in school communities has been discussed. Non-digital game-based learning offers a creative and engaging pedagogical tool through which interested and informed teachers can invite diverse classrooms of students into exciting and engaging learning experiences.

Summary

The topic of GBL has been widely discussed in the literature, and more research continues to emerge about the benefits of NGDBL, as well as the engagement of diverse school communities with this pedagogy. The literature I reviewed explored why and how GBL is such an engaging teaching strategy; the connections between GBL, collaboration, and self-efficacy; and the benefits of using NDGBL in diverse classrooms. This literature review provides evidence that supports my argument, and presents a basis for my personal application that will be shared in the next chapter.

Chapter Three: Application to Pedagogical Practice

In this chapter, I explore the practical setting of my argument in my role as a Grade 7 classroom teacher in North Vancouver, British Columbia, Canada, and draw from my experiences of using NDGBL in my classroom to connect to my argument. I discuss my experiences of using an Ancient Civilization Simulation Game in my pedagogical practice by providing the context of its use, its capacity for student engagement, its connection to the development of collaboration skills and self-efficacy in students, and its use in diverse classrooms. Finally, I summarize how my experiences connect to the literature and my argument that NDGBL is the preferred pedagogical practice for teaching the humanities to middle school-aged students. I conclude by explaining how my learning from these connections will contribute to my further development as an educator.

Experiences Using an Ancient Civilization Simulation Game

When I began teaching Grade 7 in the fall of 2019, I was provided with an opportunity from a colleague to teach the Social Studies and Language Arts curriculum with an ancient civilization simulation game-based learning experience. In the context of this paper, the Ancient Civilization Simulation Game (ACSG) is defined as a role-playing game in which students act as members of a hunter-gatherer society to advance their civilization toward an end goal of world domination. Through my experiences of teaching these subject areas through the ACSG, I found this pedagogical approach to be an exciting, effective, and memorable learning experience for all students in my classroom.

The Context

I inherited the ACSG framework from previous Grade 7 teachers at my school, who created the basis of the game from which my grade team partner and I were able to make our

own. The foundation of the ACSG that was provided to us was inspired by several digital simulation games that already existed on the topics about the rise, establishment, and fall of ancient civilizations, as well as Jared Diamond's 2005 book, *Guns, Germs and Steel: The fate of human societies*. The main goal of the ASCG is for students to learn and understand how civilizations arose in different part of the world and why natural resources available in different areas led to the global distribution of wealth and power that perpetuates today. The key idea from Diamond's book that is emphasized during the game is the concept of geographic luck. Diamond's idea explains that the societies that had access to the most productive resources were able to advance more efficiently, and were consequently able to establish widespread global power over societies that had access to less productive resources. The plot arc of the game includes the rise of ancient civilizations, the use of ancient government and religion in civilizations to maintain order, and why and how civilizations collapse. Students are given many opportunities to explore their interests within these concepts during gameplay. The game itself is a non-digital GBL experience because technology is not required to participate in actual gameplay. Due to the inquiry-based nature of the research and knowledge acquisition involved in gameplay, students and teachers use technology to complete their research and prepare for meetings, though the entire game can be played without using technology if required. As such, the ACSG is considered an NDGBL experience.

Game Structure. The ACSG spans six months of the school year, and students are organized into groups of three to five by the teacher in order to play the game. Groups are provided with information about the starting conditions of their civilization, which includes a grain resource, an animal resource, and a location on a world map. Students begin the game as a tribe of nomadic hunter-gatherers, and must attempt to advance their civilization through

acquiring resources and advancing in their technologies, beginning with the acquisition of agriculture. Groups must also attempt to grow their civilization's population through the development of innovations, culture, and societal organization techniques such as forming a government. While students are provided with the starting conditions of an actual ancient civilization that existed in history, they are reminded that they can pick and choose which elements of these civilizations they choose to incorporate into their group's society. Students are encouraged to think critically and respond to situations in the game differently than how civilizations in history may have reacted to increase their group's chances of success. These elements that allow for maximal student control create conditions for an engaging and collaborative learning environment, which is one of the main benefits of using NDGBL as a pedagogical practice.

Meetings. After the starting conditions and groups are assigned, students are responsible for preparing for a weekly class meeting. During these meetings, the teacher takes on the role of Mother Nature, who is responsible for listening to the requests of each group and granting the requests that are deemed sufficient and appropriate. In addition to gaining resources, technology, and innovations, groups can also acquire points based on the quality of their requests as well as supplementary artifacts that they may choose to create to demonstrate their knowledge and understanding. For example, a group that requests a water wheel and presents a working model that was created at home by a student will gain more points than a group that simply asks for a water wheel and explains how it works. Each group has five minutes to present their requests, and each member of the group is required to speak during their presentation time. The points available for creating hands-on representations of learning and for working successfully as a group provide an exciting motivator for students who are not academically inclined to remain

involved in the game, which is an appealing feature of NDGBL discussed in the literature review of this paper.

As students move through the ACSG, they are permitted to ask for resources and technology from Mother Nature. The critical thinking required for students to determine what and how they will request encourages meaningful collaborative problem-solving while building knowledge and skills in multiple subject areas, a quality of successful GBL described by McCall (2012). The resources must originate in the area where the group is located in the world, as indicated on the game map, and each technology asked for by a group must be requested in a specific order from a technology tree provided at the beginning of the game. Each group's capacity to acquire resources and technology increases as their civilization becomes more powerful and populated throughout the game. The dynamic structure of the ACSG maintains student excitement throughout the duration of time that it is played, creating an engaging NDGBL experience.

Phases. The ACSG is structured in five phases to guide student understanding of learning concepts. Phase One begins the game with the groups existing as nomadic hunter-gatherers, and Phase Two is established once groups establish agriculture. Phase Three begins when groups discover the technology of construction and are then able to build cities. Phase Four is initiated when groups discover navigation, and at this point in the game are provided with the opportunity to discover new lands and establish empires. Phase Five of the game explores how and why civilizations collapse. This structure allows for students to feel ownership over their decision-making in the game, while the framework of the phases provides a guide for students to develop their understanding of history, a strategy highlighted by Pivec et al. (2003) and Tobias et al.

(2014). The organization of the ACSG lends itself to student engagement, as well as the fulfillment of curricular goals, as discussed in the next section.

Curricular Connections. One of the important aspects that qualifies a GBL experience is that the gameplay involves connections to curricular material to fulfill the purpose of meeting specific learning outcomes (Shaffer et al., 2005). While curricular outcomes can be met through many different types of learning experiences in the classroom, the engaging format of the ACSG facilitates student learning in a way that is much more exciting and effective than traditional academic assignments and projects. The ACSG is structured with the foundation of the majority of the Grade 7 British Columbia Social Studies curriculum, but also provides learning opportunities in other subjects such as Language Arts and Science. As previously discussed, the framework of the game is designed for learning about the rise of civilizations, ancient government and religion, and civilization collapse. Much of the Social Studies material that students learn occurs through inquiry and research processes as students prepare for each game meeting with support provided by the teacher when needed. The structure of game meetings facilitates the development of writing and public speaking skills as students must work together to establish organize their requests and present them to the class. There are also opportunities for curricular connections to other subject areas such as Science as the game progresses. For example, groups interested in developing mining, bronzeworking and metallurgy must present their science learning on these topics when requesting these technologies in meetings. On an ongoing basis, the teacher also assesses students through individual assignments and reflections to determine the level of knowledge, understanding, and application of learning for each student. The ACSG offers many unique opportunities for students to make deep and meaningful

connections to curricular material, presenting an exciting NDGBL learning experience that all teachers should consider facilitating in their classrooms.

Student Engagement

The play-based nature of NDGBL combines students' natural inclination for play with the excitement for learning new information and skills (Avdiu, 2019), creating learning experiences that all educators should consider implementing in their regular practice. In my facilitation of the ACSG in my classroom, students are consistently engaged in the game from start to finish. I believe that the unique nature of this learning experience and its structure as a role-playing game are major factors that support student interest. In my observations, one of the aspects of the ACSG that students enjoy the most is its open-ended format and the amount of control the students have over the destiny of their group within the game. As indicated in the literature, students enjoy being in a position where they are making decisions and choices (Pivec et al., 2003), resulting in learning that is "personally more relevant and satisfying" (Von Gillern & Alaswad, 2016, p. 9). Through the actions of deciding what resources and technology to request, as well as forming group decisions about how their societies will progress, students feel a deep personal connection and responsibility for the success of their group's fate in the game. The role-playing nature of the ACSG also contributes to its appeal, as it creates a low-risk environment where students must engage in problem-solving in the role of members of their civilization, a positive feature of GBL discussed by Ucus (2015). The framework of the ACSG used in my classroom establishes the basis for an exciting learning experience that keeps students motivated and engaged for the duration of the period in which it is played. The elements of competition and the structure of the various phases in the ACSG maintains student interest and keeps them on track to fulfill learning goals as coordinated by the teacher. These factors, in

combination with each other, build the foundation for extremely engaging learning experiences, connecting to my argument that NDGBL that can and should be used in all middle school-aged classrooms.

Collaboration and Self-Efficacy

Collaboration (Avdiu, 2019; Cicchino, 2015; Wang & Zheng, 2020) and self-efficacy (Lu & Lien, 2020; Meluso et al., 2012) have both been found to be correlated with the use of GBL experiences in the classroom. I have observed student growth in their capacity to work with others and increases in their self-efficacy while participating in the various stages of the ACSG. Students learn how to work with others and collaborate through the nature of the group work during the ASCG, and develop a strong sense of self as they become interested and motivated in being successful due to the competitive and exciting nature of the game experience.

Collaboration. In the ACSG used in my classroom, the teacher is responsible for creating groups of three to five students, who will work together for the duration of gameplay. I have taken to the practice of strategically grouping students based on social compatibility and academic ability to ensure student buy-in through the many months required to fulfill the game's completion. Before, during, and after each meeting, students must communicate, strategize, and collaborate to ensure that they are prepared for their meetings and can be successful in their requests. Often, students encounter challenges when they may not all agree on which steps to take next in the game, or feel frustrated with a group member who may be acting inflexible or is failing to complete their share of the group's responsibilities. As a result, students learn how to compromise and manage conflict as it arises, either independently or as supported by the teacher when necessary.

The social nature of the collaboration that occurs during gameplay also serves as a powerful motivator for students to stay on task and engaged in their learning. As research demonstrates, GBL exhibits the capacity for students to build content knowledge collaboratively in an efficient way (Buffum et al., 2016; Meluso et al., 2011). An example of this that I have witnessed occurs during the part of the game when groups begin discovering the technology of bronzeworking. After this technology is established in a group's society, the students in other groups become highly motivated to catch up with the advancements of their competitors. As a result, many students arrive at the next meeting educated and prepared with new researched knowledge about bronzeworking, a technology that will provide them greater success and power in the game. Through the gameplay in the ACSG, students work together to achieve success, both within their groups as well as in competition with other groups in the class. My experiences of facilitating the ACSG illustrate many of the collaborative skills that students develop through NDGBL experiences, and how the inclusion of these types of learning experiences is so important in middle school-aged classroom settings.

Self-Efficacy. The unique nature of the ACSG presents an exciting learning opportunity for students that can build their confidence and positive sense of self. One of the reasons why this game is so memorable for students is because as GBL, it is unlike most of the learning experiences that they have encountered in their academic careers (Lu & Lien, 2020). As a result, many of my past students who typically have not held positive associations with school and learning experienced a shift in their attitude about themselves and their capabilities after becoming emotionally invested in the ACSG. Consequently, their self-efficacy improved as they discovered their ability to maintain continued success in the game, which aligns with the claim of my argument that connects GBL to increased self-efficacy in students.

A past student that I taught, who I will refer to as M, comes to mind when I contemplate how student self-efficacy is positively impacted by the facilitation of the ACSG in the classroom. M entered my class at the beginning of his Grade 7 school year with a negative attitude about school and learning. Academics were challenging for M, and he often found himself lost and uninterested in his learning. After the introduction of the ACSG, he quickly became very intrigued and invested in the game. As his group continued their research in preparation for the meetings, M became more interested in the history of his group's region, and his group soon began to achieve accelerated success in their meeting requests. M also began enjoying making models and artifacts to demonstrate the innovations and technologies that his group was requesting.

One day, M arrived for a meeting with 60 different ancient tool replicas that his group asked for, created out of cardboard. They looked incredibly accurate, and he was able to confidently explain what each tool was, what materials each was made of, and how they worked. By the conclusion of the game that year, M was known in the class for being incredibly skilled and knowledgeable about all things related to the ACSG. From my standpoint as his teacher, I believe that this incredible change occurred because of the accessible and fun way that learning is presented in the ACSG. As soon as the traditional educational barriers are removed from accessing the joy of learning, students who traditionally face challenges in academic areas can access this joy and thrive. M finished Grade 7 as an incredibly confident student who remains infamous amongst my past and present students for his contributions to his ACSG group's victory that school year.

As demonstrated in M's learning experiences through the ACSG, it is clear that his involvement in a GBL experience led to increased self-efficacy compared to his learning in

traditional situations, as described in the literature (Lu & Lien, 2020; Wang & Zheng, 2020). I observed many of the connections identified between self-efficacy and GBL that have been researched, including improvements in M's classroom behaviour and attitude toward learning during and after participation in the ACSG (Meluso et al., 2011). Game-based learning opportunities such as the ACSG can and should be used to encourage students who hold negative perceptions of self, as the unique format may present learning of content and skills in a more accessible and inviting way.

Through my experiences with the ACSG, I have developed the understanding that NDGBL's unique pedagogical approach supports students in developing collaboration skills and self-efficacy. This skill development is in addition to the deep and critical thinking and learning that takes place while exploring the curricular content of a game topic. As a result, all students, including reluctant learners, can be invited into the ACSG to not only gain knowledge, but become better learners and people.

Teaching to Diversity

In my teaching experience, the flexibility of the ACSG allows for the easy modification and adaptation of game materials and tasks in order to meet the needs of a diverse classroom. As a result, the spirit of the game can be maintained for all students, regardless of their ability. The collaborative nature of the ACSG and its customizability allow for easy modification across a wide range of classrooms and school communities, including students who are English Language Learners, or face significant learning or behaviour challenges.

Collaboration. As outlined in the literature, the collaborative nature of NDGBL requires students to work together to achieve group goals (Cicchino, 2015; Kuo & Hsu, 2020). I have witnessed this directly in my facilitation of the ACSG, as student groups are mutually invested in

the success of their societies within the game, and must help each other to ensure the success of their group. The most common way that I have seen this occur is through the division of labor amongst group members, where students identify their strengths and preferences and divide their work accordingly. For example, one student in a group may focus on creating logistical diagrams and artifacts to represent the technology requests, while other students will confirm that research and sources consulted are of suitable quality. Students also must work together to ensure all group members are successful in the sharing of their requests during group meetings. This often involves students supporting English Language Learners so that they are comfortable with their portion of the group's requests before meeting time, to clarify any unfamiliar words or confirm accurate pronunciation. The collaborative nature of the ACSG creates a culture in which students must support their peers and play into their strengths to gain group success within the framework of the game, supporting my argument that NDGBL should be used in all middle school-aged classrooms.

Customizability. While the ACSG is highly structured in its design, the customizability within its framework accommodates the diverse learning abilities in any classroom community. This flexibility presents a major advantage of using NDGBL compared to GBL experiences that are digital, as discussed by Von Gillern and Alaswad (2016). Students conducting research to prepare for meetings are invited to consult resources that work for them depending on how they learn best, which could take the form of websites, videos, documentaries, books, magazines, or interviews with experts in the community. For students at an intellectual level where in-depth research presents a challenge, they can demonstrate their learning through a range of contributions to their group, such as creating artifacts or diagrams as previously discussed. Students who face challenges in working with others and understanding conflict can take on

more individual roles in the game, where the teacher works with the student to conduct research about a particular civilization, and the information provided can inform the teacher in coordinating game outcomes, interactions, and chance events.

Role of the Teacher. The flexibility and customizability of the ACSG is dependent on how well the teacher knows and is able to respond to the needs and interests of their students. McCall (2012) explains that teacher's role is crucial in ensuring success of GBL experiences, and this rings true in diverse class communities. Knowing and understanding students, when to present additional challenges, and when to remain patient are important factors in successful game facilitation. In my experience facilitating the ACSG, I have had cohorts of students that have thrived off of a high-stakes competitive environment, while other cohorts have preferred a more relaxed approach where the fun of the game is prioritized. Knowing student dynamics prior to the start of the game can also set up students for success in their participation in the ACSG. I have found that students are more invested in the game when they get to work in groups with preferred peers. This pre-assessment can go a long way, as students navigate challenges in their group dynamics throughout the course of ACSG play. When teachers know their students and can respond to their needs, gameplay is more successful as its framework and design can be modified to match the style and intensity of play that best suits the specific classroom.

The collaborative aspects of NDGBL, as well as its customizability, play into the strengths of a diverse classroom, as mentioned in the argument for this paper. In my experience of facilitating the ACSG, these attributes, in combination with the teacher's knowledge and understanding of student strengths and needs, have made for a fun and educational learning experience for all students, regardless of their academic ability.

Summary

In summary, my experience of facilitating the ACSG has brought many of the benefits demonstrated in the literature to life in my classroom. The ACSG's capacity for student engagement, and the many opportunities within the game's structure for this engagement to occur, piques student interest and keeps them motivated to learn more than they would be covering in curricular material through traditional assignments. I have witnessed NDGBL's positive effect on collaboration and self-efficacy through the ACSG, as students work together to solve problems in the game, and develop confidence through contributing to their group's work in ways that play into each individual's strengths. Finally, the flexibility of NDGBL, as demonstrated in the ACSG, allows for every student in a diverse class community to participate in a fun and exciting learning experience. It is evident that the facilitation of NDGBL experiences such as the ACSG is a pedagogical practice that all educators should consider implementing in their classroom in the teaching of the humanities, as outlined in the argument for this paper. I hope to continue to build upon my knowledge of GBL and NDGBL throughout my career, and I intend to implement this knowledge in the improvement of my existing ACSG, as well as develop additional game-based learning experiences for my classroom. In the final chapter, I will summarize the previous chapters and will contemplate the implications of my argument.

Chapter Four: Conclusion

In this paper, I argue that non-digital game-based learning is an essential pedagogical practice for educators to effectively teach the humanities subjects to middle school-aged students. I make this claim because of NDGBL's exciting format, its capacity to facilitate student collaboration skills and increase self-efficacy, and its ability to be used in diverse classrooms. In this final chapter, I first explore how the ideas and claims from the preceding chapters are connected. I then explain the success of the argument in this paper, and conclude by outlining the practical and theoretical implications of the findings of this paper.

Summary

In the first chapter of this paper, I introduced my personal interest in game-based learning and how this interest connects to my professional development and pedagogical practice as an educator. I explained how my love of games led to my natural inclination to include GBL experiences in my teaching practice, and introduced my positive experiences of facilitating an Ancient Civilization Simulation Game (ACSG) in my Grade 7 classroom over the past few school years. The connections between my personal interests and experiences supported my argument that NDGBL is the preferred pedagogical practice for teaching the humanities to middle-school aged students because it is engaging, builds student collaboration and self-efficacy, and is accessible to all school communities.

In the second chapter of this paper, I connected my argument to the existing literature about GBL and NDGBL. The themes that I explored from existing research on this topic included how and why GBL is such an engaging learning experience, GBL's capacity to facilitate the development of collaboration skills and self-efficacy in students, and the use of NDGBL in diverse classrooms. My review of the literature demonstrated that GBL is a

captivating learning experience that combines students' natural inclination for play with the fulfillment of curricular learning goals (Avdiu, 2019; McCall, 2012). I explored research demonstrating GBL's capacity to facilitate collaborative learning and encourage further curiosity and investigation into curricular topics (Cicchino, 2015; Kuo & Hsu, 2020), while also building their positive perceptions of themselves as learners (Lu & Lien, 2020). The literature review also outlined how the customizability and flexibility of NDGBL, when adjusted appropriately by the teacher facilitating the game, allows for successful use in diverse classroom settings (Chee et al., 2014; Ucus, 2015; Von Gillern & Alaswad, 2016). The literature examined in this paper supported my argument that NGDBL is the preferred pedagogical practice to teach the humanities subjects in middle school-aged classrooms.

In the third chapter, I connected my teaching and learning journey to the literature in the second chapter through my practical application of using NDGBL in my classroom. I shared my experiences of using an ACSG with my Grade 7 students, and explored how the many benefits of GBL discussed in the second chapter have come to life in my own classroom through the use of the ACSG. In my experiences of facilitating this game, I found students to be more engaged and invested in their learning than any other learning experience I have administered in my teaching career. I also found that through participating in the ACSG, students learn how to work collaboratively through both challenges and successes; the competition between groups in the game motivates students even further to work collaboratively to complete game tasks. I realized that the ACSG invites reluctant learners into a safe and interesting learning environment where they are able to access the joy of learning and thrive, because it creates an environment where students can develop their confidence in learning through a non-traditional method. Finally, I shared how I have been able to adapt the ACSG to diverse classrooms through its easy flexibility

and customizability to accommodate all learners, regardless of ability. I was able to make clear connections between my teaching experiences and the literature to outline the many benefits and possibilities that come with the implementation of NDGBL in the Grade 7 classroom setting.

This paper has advanced my argument that non-digital game-based learning is the preferred pedagogical approach to teach the humanities to middle school-aged students. I clearly outlined how the pedagogy of GBL and NDGBL is beneficial for use with this age group and subject area, and supported my argument with evidence from the literature. The literature further illustrated the qualities of GBL that make it exciting and engaging, GBL's ability to increase the facilitation of collaboration and self-efficacy in students, and the accessibility of NDGBL in diverse classrooms. I supported these findings from the literature with my sharing of my experiences facilitating NDGBL through the ACSG by demonstrating how this pedagogy and its benefits have become a reality for myself and my students in my Grade 7 classroom.

Implications

This paper presents both theoretical and practical implications that should be considered by teachers, administrators, school districts, educational professional development providers, and teacher education programs. Theoretically, educators are constantly searching for the most efficient and effective way to teach students curricular material in a way that is relevant and meaningful. NDGBL is a pedagogical practice that can accomplish these goals in a way that is also fun for everyone involved. While GBL's format excites students about curricular topics that they must learn, it also facilitates the growth of valuable collaboration skills and their own self-efficacy, which students can utilize for the rest of their academic and adult lives. The flexible format of NDGBL also means that all learners can engage with and benefit from these learning experiences, including students who may find traditional academic tasks challenging. Educators

who implement NDGBL in their classroom can use this pedagogical practice knowing that it not only makes learning more accessible and exciting for all students, but also facilitates their skill development in becoming both better learners and well-rounded people. More research in the areas of NDGBL, GBL and the humanities, and GBL with middle school-aged students is necessary to ensure that a widespread understanding of the benefits of GBL and NDGBL can be established in the field of education.

Practically, I would like for this paper to inspire more educators to take on game-based learning pedagogies in their classrooms. As a teacher myself, I acknowledge that it is intimidating and challenging to explore new pedagogical practices at any stage of a career as an educator. There is inherent time, risk, and extra work involved with learning about how and why a new practice is worth learning about, and then implementing it successfully in the classroom. I hope that through the exploration of my argument in this paper, teachers realize NDGBL's enormous capacity to connect all students in the classroom with their learning in an exciting and meaningful way. The widespread implementation of NDGBL could instigate a dynamic shift in how academic learning is viewed and produce more educated, well-rounded, and happier students as a result.

The widespread implementation of NDGBL in schools will not be possible without the financial and professional sponsorship of administrators, school districts, educational professional development providers, and teacher education programs to support teachers' understanding of why and how NDGBL can and should be used in all school communities. The involvement of these stakeholders is necessary to equip existing and future teachers with the skills, tools, and time necessary to confidently facilitate this pedagogical practice with students. Teachers will be more likely to implement NDGBL in their classrooms if they have the

necessary knowledge and resources to do so successfully, and are able to personally make connections between NDGBL and their own philosophical priorities as educators. If many or all educators in a school community use NDGBL as a pedagogical practice, staff can work as a team to mentor and support each other in their growth and development as NDGBL facilitators. Teachers would continuously grow in their abilities to facilitate NDGBL, and students would flourish in a school community that presents endless possibilities and excitement for learning with each new grade level and GBL experience. If successful, the next generation of students will be better supported in their curiosity and in their capacity to solve problems and work collaboratively, growing up to become lifelong learners and confident adults.

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