

Perceptions and Potential: Investigating the Integration of Digital Game-Based Language Learning

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Abstract

This dissertation investigates the perceptions of teachers regarding the integration of digital game-based language learning in educational environments, exploring the factors that influence their views. Digital game-based language learning has gained recognition as a potentially effective and engaging approach for language instruction, but its success and uptake depend on teachers' attitudes, beliefs, and readiness to embrace new technologies and pedagogical methods.

Drawing upon a qualitative research design, this study employs in-depth interviews with teachers to capture their perspectives on digital game-based language learning. The research participants encompass a diverse sample of language teachers across different educational levels and institutions. Through open-ended questioning, this study explores teachers' perceptions, concerns, and motivations regarding the uptake and integration of digital game-based language learning in their classrooms.

The findings reveal several key themes regarding teacher perceptions on integrating digital game-based language learning into their classrooms. These are the motivational and engagement benefits of using digital games, the perceived challenges and resource constraints faced by teachers, best practices for integrating games into the curriculum, the impact of changing technology, and future perceptions of gaming in language education. Overall teachers acknowledged the potential of digital games to enhance student engagement and motivation, foster autonomy, and create immersive learning environments. However, they also highlighted significant challenges, including the need for technological resources, professional development, and institutional support.

This study aims to inform educators, policymakers, and practitioners about the potential benefits and challenges associated with digital game-based language learning and its incorporation in the educational field. By understanding teachers' perspectives, this research provides insights into how digital games can be effectively utilized to create dynamic and engaging language learning experiences, ultimately contributing to the broader field of educational technology and language pedagogy.

Table of Contents

Chapter 1: Introduction.....	9
1.0 Overview.....	9
1.1 The Cultural Significance of Games	9
1.2 Digital Game-Based Learning and Digital Game-Based Language Learning.....	10
1.3 Benefits of Digital Game-Based Language Learning	11
1.4 Motivation for the Study and Research Question	12
1.5 Organisation of the Chapters	13
Chapter 2: Literature Review.....	14
2.0 Introduction.....	14
2.1 Theoretical Foundations of DGBL and DGBLL.....	14
2.2 Benefits of DGBLL.....	15
2.2.1 Motivation and Engagement.....	15
2.2.2 Language Skills Development.....	15
2.2.3 Social Interaction and Collaboration.....	16
2.3 Cognitive and Psychological Benefits.....	17
2.3.1 Cognitive Skill Enhancement	17
2.3.2 Stress Reduction and Emotional Well-being.....	17
2.4 Challenges of DGBL and DGBLL	17
2.4.1 Distraction and Overemphasis on Gaming	17
2.4.2 Technological and Resource Constraints	18
2.4.3 Teacher Attitudes and Digital Literacy	19
2.5 Best Practices for DGBL and DGBLL	19
2.5.1 Alignment with Curriculum.....	19
2.5.2 Customization and Adaptation	20
2.5.3 Formative Assessment and Feedback	20
2.5.4 Professional Development and Support	21
2.6 Perceptions of DGBL and DGBLL	22
2.6.1 Educators' Perceptions	22
2.6.2 Students' Perceptions	24
2.6.3 Researchers' Perceptions	25
2.7 Future Directions for DGBL and DGBLL	26
2.7.1 Technological Advancements	26

2.7.2 Educational Policies and Practices	26
2.7.3 Researchers Questions	27
2.8 Conclusion	28
Chapter 3: Methods	29
3.1 Introduction	29
3.2 Research Paradigm	29
3.3 Method	30
3.4 Participants and Data Collection	30
3.5 Analytical Procedure	32
3.6 Issues with Thematic Analysis	34
3.7 Ethics	34
3.8 Conclusion.....	35
Chapter 4: Results	36
4.0 Introduction	36
4.1 Motivation and Engagement	36
4.1.1 Positive Perceptions	37
4.1.2 Negative Perceptions	38
4.2 Teacher Challenges with Video Game Integration	40
4.2.1 Challenge for Digital Immigrants	40
4.2.2 Resource Constraints	41
4.3 Perceptions on Best Practices	43
4.3.1 Integration	43
4.3.2 Adaptation and Customization	44
4.3.3 Monitoring Progress and Assessment	45
4.3.4 Professional Development and Support.....	47
4.4 Perceptions on Changing Technology	48
4.4.1 Facilitation of Technological Literacy.....	48
4.4.2 Pedagogical Adaptation to Technological Changes	49
4.4.3 Technological Integration Challenges	50
4.5 Perceptions on the Future of Video Game Language Learning.....	50
4.5.1 Future of Gaming in Language Education.....	51
4.5.2 Impact of Covid	52

4.6 Conclusion	54
Chapter 5: Discussion	55
5.0 Introduction	55
5.1 Key Observations	55
5.1.1 Adopting a Balanced Approach	56
5.1.2 Fostering an Institutional Culture of Technological Innovation and Inclusion	57
5.1.3 Relevance to the Individual Needs of Learners	58
5.1.4 Dynamic and Aligned Assessment	59
5.1.5 Facilitating Technological Learning and Pedagogical Adaption	59
5.1.6 The Indispensable Role of the Teacher	60
5.1.7 COVID-19 as a Catalyst for Technology in Language Education	60
5.2 Implications	61
5.2.1 Implications for Teachers	61
5.2.2 Implications for Institutions	62
5.2.3 Implications for Game Designers.....	62
5.3 Significance of the Study	63
5.4 Limitations	64
5.5 Possibilities for Future Research	65
5.6 Conclusion	65
References	67

List of tables and diagrams

Table 1: Participant Diagram31
Diagram 1: Initial Codes33

Appendices

Appendix A : Interview Questions73

Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning

Signed:

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Chapter One: Introduction

1.0 Overview

The field of language education is constantly evolving, with new methodologies and technologies being integrated to improve teaching practices and enhance learning outcomes. Digital Game-Based Language Learning (DGBLL) represents one such innovation, combining the engaging nature of digital games with language teaching objectives. However, despite many studies identifying the benefits of DGBLL for engaging learners and improving language acquisition, its uptake is still relatively slow (Dixon et al., 2022). In order to understand more about DGBLL, including possible reasons for this limited enthusiasm and the challenges faced when implementing DGBLL, this study investigates teachers' perceptions regarding their use of digital games in the language learning classroom. In order to provide an introductory background for this study, this chapter will provide a brief overview of the social significance of games to society, the role of digital game-based learning in both general and language education settings, and the benefits of digital game-based learning in language education. Finally, after a brief discussion of the motivation for the study, the chapter will conclude with a summary of the study's structure.

1.1 The Cultural Significance of Games

Games have been an important, influential, and powerful instrument in shaping numerous cultures and societies. Their long history dates back to 5000 BC in the Mediterranean and Middle East, from intricate board games such as Senet in ancient Egypt to Chaturanga in India, which evolved into today's game of chess. Games can be defined as "an activity or sport usually involving skill, knowledge, or chance, in which you follow fixed rules and try to win against an opponent or solve a puzzle" (Arjoranta, 2019, p.110).

Throughout history, games have allowed people to create and share bonds and work together towards a meaningful purpose. One of the most highly played and viewed games around the world is football (soccer). In 2019, the global football market was valued at \$1.9 billion USD and estimated to grow to \$3.7 billion USD by 2027. The 2018 World Cup, the pinnacle

tournament in football, attracted 517 million viewers for the final match and a total of 1.1 billion viewers throughout the tournament (Fédération Internationale de Football Association [FIFA], 2020). These numbers demonstrate that games have the potential to unite large audiences, even if only for a short timeframe. Walvin (2014) states that “it would be hard to think of any modern society where sport does not occupy a central and influential role, not merely in the way local people seek pleasures, but more especially how they see and define themselves.”

Just as traditional games like football have played a central role in society, video games have emerged as a powerful cultural force in contemporary society. The global market for video games is worth billions of dollars, encompassing internet communities, worldwide expos such as E3, and numerous published magazines such as *Edge* and *Game Informer* (Chen & Hsu, 2020). Such a vast network highlights the significant impact video games have had on entertainment, social interactions, and even mainstream media. Importantly, their widespread popularity has also led to video games being recognized as influential tools for education and language learning (Nivethitha, K. 2024), now often referred to as Digital Game-Based Learning and in the context of language education, Digital Game-Based Language Learning.

1.2 Digital Game-Based Learning and Digital Game-Based Language Learning

Digital Game-Based Learning (DGBL) refers to the use of digital games as educational tools to support learning objectives. These games are designed to be both entertaining and instructional, leveraging the engaging elements of gameplay to enhance the learning experience (Squire, 2011). DGBL began to take shape in the late 20th century, with the rise of personal computers and video games. One of the earliest examples is the game “Oregon Trail,” which was developed in 1971 and used in schools to teach students about American history. The 1980s and 1990s saw a growth in educational software and games designed for learning purposes, with companies like The Learning Company and Broderbund producing titles such as “Reader Rabbit” and “Carmen Sandiego.” (Buckingham & Scanlon, 2004; Sandford et al., 2006).

By the 2000s, the concept had gained more attention among educators, particularly as researchers began to explore the potential of digital games for educational purposes more systematically. The increasing development of more serious games, designed explicitly for education and training, further solidified DGBL as a legitimate field of study and practice in education. Their use is based on the premise that the engaging nature of these games can enhance motivation, sustain attention, and promote deeper learning (Malone & Lepper, 1987).

Digital Game-Based Language Learning (DGBLL) is a specific application of DGBL that focuses on language acquisition. DGBLL games are designed with language learning objectives in mind, incorporating tasks and activities that require learners to use and practice their language skills. These games often include features such as interactive dialogues, vocabulary exercises, and grammar challenges, allowing learners to develop their language proficiency in a fun and engaging context (de Haan, Reed, & Kuwada, 2010).

1.3 Benefits of Digital Game-Based Language Learning

DGBLL can have a positive impact on language learning outcomes, with early studies showing that games can increase motivation, enhance engagement, and improve retention of language skills (Gee, 2003; Prensky, 2001). Digital games also can simulate real-life scenarios and contexts, allowing learners to practice language skills in meaningful and practical ways. This experiential learning approach bridges the gap between theoretical language knowledge and practical application, making the learning process more relevant and effective (Schmidt, 1990).

Digital games also provide immediate feedback, which is essential for effective learning, helping language learners quickly identify and correct their mistakes, thus facilitating the development of language skills (Gee, 2003). Furthermore, games often involve repetitive tasks and challenges, which benefiting from the fact that the game user is not necessarily conscious of these repetitive processes, reinforce learning and help consolidate new language knowledge (deHaan, Reed, & Kuwada, 2010).

The motivational aspects of games are particularly important in language learning. Motivation is a critical factor in language acquisition, and games have been shown to increase language learners' intrinsic motivation by providing enjoyable and rewarding experiences (Reinders & Wattana, 2015; Hung & Young, 2015). By creating a fun and engaging learning environment, digital games are said to help to overcome challenges associated with traditional language teaching methods, such as learner disengagement and lack of motivation.

Integration of digital game-based learning in language education can also enhance the perceptual processes involved in language acquisition by providing interactive, immersive, and motivating learning experiences. This makes DGBLL a promising approach for improving language learning outcomes and addressing some of the limitations of traditional language teaching methods.

Nevertheless, there are also challenges associated with the implementation DGBLL, such as the need for appropriate technological infrastructure, the design of effective educational games, and the integration of games into the broader curriculum (Whitton, 2010).

1.4 Motivation for the Study and Research Question

As a lifelong gamer, video games have become an integral part of my identity. Therefore, as a student language teacher, my passion for games naturally drives me to explore their potential for language education. I am particularly interested in learning from experienced language teachers who have insights into their use, implementation, and the issues they present. Understanding these perceptions may help me incorporate games into my own language teaching practice to facilitate interactive and engaging student learning experiences, while also identifying potential pitfalls. This study, then, focuses on the perceptions of experienced language teachers regarding the use of video games in the classroom, in order to determine what they believe are the best practices, challenges, and possible strategies for overcoming those challenges. It also hopes to contribute further to the field of digital game-based learning in language education.

1.5 Organization of the Chapters

This dissertation is organized into six chapters, each focusing on different aspects of the research. Chapter 2 provides a comprehensive literature review on DGBL and DGBLL, examining previous studies and theoretical frameworks. This chapter will delve into the existing body of knowledge, highlighting key findings and conclude by identifying the research question that this study aims to address.

Chapter 3 outlines the methodology used in this study, including data collection and analysis methods. This chapter will describe the research design, participants, instruments, and procedures used to gather and analyse data.

Chapter 4 presents the results of the study, highlighting key findings and their implications. This chapter will provide a detailed analysis of the data collected, offering insights into the teacher perceptions of DGBLL. Chapter 5 discusses the findings in detail, relating them to existing literature and theoretical perspectives. This chapter will interpret the results, discussing their significance and implications for language teaching and learning. Chapter 6 concludes the dissertation, summarizing the main contributions of the research and suggesting directions for future studies. This chapter will highlight the key takeaways from the research, offering recommendations for educators, policymakers, and future researchers.

Chapter Two: Literature Review

2.0 Introduction

Digital Game-Based Learning (DGBL) has gained substantial attention as a progressive educational approach that integrates digital games into learning environments. This method draws upon the engaging nature of games to enhance learning outcomes across various subjects. In recent years, DGBL has been increasingly explored for its potential in language education, leading to the more specific field of Digital Game-Based Language Learning (DGBLL). This literature review synthesizes current research on DGBL and DGBLL, focusing on their benefits, challenges, and best practices. It also examines the perceptions of educators, students, and researchers towards these methods and how these perspectives influence their implementation and effectiveness.

2.1 Theoretical Foundations of DGBL and DGBLL

DGBL and DGBLL are grounded in several educational theories, including constructivism, situated learning, and the principles of gamification. Constructivist theory posits that learners construct knowledge through experiences and interactions with their environment (Piaget, 1952). This theory aligns with the interactive nature of digital games, which provide immersive environments where learners can engage in meaningful tasks and receive immediate feedback (Gee, 2003). Situated learning theory, which emphasizes the context of learning activities, also supports both DGBL and DGBLL by highlighting the importance of authentic, context-rich experiences for learning and language acquisition (Lave & Wenger, 1991).

The principles of gamification, as defined by Deterding et al. (2011), involve using game design elements outside of gaming conditions. In both DGBL and DGBLL, for example, gamification leverages the motivational aspects of games—such as points, levels, and rewards—to create a more engaging learning experience. Deterding et al. state that this foundation underscores the potential of DGBL and DGBLL to transform traditional learning and language learning by making them more interactive, enjoyable, and effective.

2.2 Benefits of DGBL and DGBLL

2.2.1 Motivation and Engagement

One of the most frequently cited benefits of both DGBL and DGBLL is their ability to enhance learner motivation and engagement. Digital games offer interactive and immersive experiences that can captivate learners' attention and sustain their interest in educational tasks. According to Deci and Ryan's (2000) Self-Determination Theory, digital games foster intrinsic motivation by fulfilling learners' needs for autonomy, competence, and relatedness. Research by Garris, Ahlers, and Driskell (2002) supports this view, indicating that the immediate feedback and challenges presented in games can boost learners' perseverance and motivation.

The immersive nature of digital games is particularly effective in promoting intrinsic motivation. Gee (2003) argues that good video games incorporate principles of learning that are also supported by cognitive science, such as providing players with clear goals, immediate feedback, and opportunities for mastery. These elements align with Deci and Ryan's (2000) concept of intrinsic motivation, where individuals are motivated to engage in activities that satisfy their innate psychological needs.

Additionally, digital games often include narrative elements that can further enhance motivation. Prensky (2001) notes that storytelling within games can create emotional connections, making learning experiences more memorable and engaging. For language learners, this means that they are not only practicing language skills but also engaging with content that is meaningful and emotionally resonant.

2.2.2 Skill and Language Development

Digital games can facilitate the development of various skills, including critical thinking, problem-solving, and language skills such as vocabulary, grammar, listening, and speaking. The interactive nature of games encourages active participation and allows learners to practice these skills in a low-stress environment. Studies have shown that games, like strategy and role-playing games, can significantly improve learners' critical thinking and problem-solving abilities through interaction and challenges (Peterson, 2016). Additionally, digital

games often incorporate storytelling elements, which can enhance learners' narrative skills and cultural awareness (Gee, 2003).

Research by Miller and Hegelheimer (2006) has demonstrated that integrating video games into instruction can improve learners' skills. In their study, students who used skill-building games showed significant improvements compared to those who used traditional study methods. They suggest that the interactive and repetitive nature of games can reinforce skill learning.

In the context of DGBLL, digital games can provide opportunities for contextualized language use, which is crucial for language acquisition. Krashen's (1985) Input Hypothesis emphasizes the importance of comprehensible input—language that learners can understand, but is slightly above their current proficiency level. Digital games often provide such input through dialogues, instructions, and in-game texts situated within meaningful contexts, thereby facilitating language acquisition.

2.2.3 Social Interaction and Collaboration

Many digital games involve social interaction and collaboration, which are crucial for both learning and language learning. Multiplayer games, in particular, provide opportunities for learners to engage in meaningful communication with peers, thereby practicing their social interaction skills in authentic contexts (Voulgari & Komis, 2010). Collaborative tasks within games can also promote teamwork and problem-solving skills, further enriching the learning experience (Wu, Richards, & Saw, 2014).

Voulgari and Komis (2010) highlight the potential of multiplayer games to create rich social environments where learners can practice skills through interaction with other players. These interactions often require the negotiation of meaning, which is a key component of language acquisition. Learners must use their skills to collaborate, strategize, and solve problems, providing them with ample opportunities to practice and improve their proficiency.

In addition to fostering language skills, collaborative gaming environments can also promote intercultural competence. By interacting with players from diverse cultural backgrounds, learners are exposed to different perspectives and communication styles, which can enhance their cultural awareness and empathy (Squire, 2011). This aspect of DGBL and DGBLL

aligns with the goals of intercultural competence, which aims to prepare learners to interact effectively in a globalized world.

2.3 Cognitive and Psychological Benefits

2.3.1 Cognitive Skill Enhancement

Digital games have been shown to enhance various cognitive skills, including memory, spatial awareness, and executive functions. Research by Green and Bavelier (2003) indicates that action games can improve visual attention and spatial resolution, leading to better performance in tasks requiring these skills. These cognitive benefits extend beyond the gaming context, suggesting that DGBL can contribute to overall cognitive development.

2.3.2 Stress Reduction and Emotional Well-being

Engaging in digital games can also have positive effects on learners' emotional well-being. Research by Reinecke (2009) suggests that playing digital games can reduce stress and improve mood, making it a beneficial activity for students who may experience academic pressures. Additionally, the enjoyable nature of games can foster a positive learning environment, enhancing students' overall educational experience.

2.4 Challenges of DGBL and DGBLL

2.4.1 Distraction and Overemphasis on Gaming

Despite the numerous benefits, there are challenges associated with the integration of digital games into learning and language learning. One significant concern is the potential for games to distract learners from educational objectives. Some studies have reported that learners may become overly focused on gaming rewards and achievements, neglecting the educational content (Wouters, van Nimwegen, van Oostendorp, & van der Spek, 2013). This distraction can undermine the educational efficacy of DGBL and DGBLL and reduce their overall impact on learning.

Research by Kirriemuir and McFarlane (2004) suggests that while digital games can be highly engaging, there is a risk that the gaming elements may overshadow the educational objectives. This concern is particularly relevant in gamified learning environments where the

emphasis on points, badges, and leaderboards can shift learners' focus from learning to winning. To mitigate this risk, educators need to carefully design and implement DGBL and DGBLL activities that maintain a balance between educational goals and gaming elements.

Another challenge is the potential for digital games to foster superficial engagement. While games can capture learners' attention, this engagement may not always translate into deep, meaningful learning. Squire (2011) warns that the novelty of games can wear off, leading to a decline in motivation and engagement over time. Therefore, it is essential to continuously evaluate and adapt DGBL and DGBLL activities to ensure they remain relevant and challenging for learners.

2.4.2 Technological and Resource Constraints

Another challenge is the availability of technological resources and support. Effective implementation of DGBL and DGBLL requires access to appropriate hardware, software, and reliable internet connections. Schools in under-resourced areas may attempt to provide these necessities, leading to inequalities in access to DGBL and DGBLL opportunities (Ertmer et al., 2012). Additionally, teachers may require professional development to effectively integrate digital games into their teaching practices, requiring further straining resources (Helsper & Eynon, 2010).

Ertmer et al. (2012) highlight the importance of addressing both first-order barriers (e.g., access to technology) and second-order barriers (e.g., teachers' beliefs and attitudes) to successfully integrate digital games into education. Schools need to invest in the necessary infrastructure and provide ongoing support to ensure that all students have equitable access to DGBL and DGBLL opportunities.

Moreover, the rapid pace of technological change poses a challenge for educators and institutions. Keeping up with the latest developments in digital games and educational technology requires continuous investment in both hardware and software. Additionally, educators need to stay informed about new tools and strategies for integrating games into their teaching practices, which can be time-consuming and demanding (UNESCO, 2023).

2.4.3 Teacher Attitudes and Digital Literacy

The attitudes and digital literacy levels of teachers also play a critical role in the successful adoption of DGBL and DGBLL. Research indicates that younger teachers, often digital natives, are more open to using digital games in the classroom compared to their older counterparts, who may be digital immigrants (Bennett et al., 2008). Bridging this generational gap requires targeted professional development and support to enhance teachers' confidence and competence in using digital tools for instruction (Zhao et al., 2002).

Helsper and Eynon (2010) suggest that the digital divide among teachers can significantly impact the implementation of DGBL and DGBLL. Digital natives are typically more comfortable with technology and are likely to embrace digital games as a natural extension of their teaching practices. In contrast, digital immigrants may feel less confident and more resistant to incorporating modern technologies into their classrooms.

To address this issue, professional development programs should focus on enhancing teachers' digital literacy and providing them with practical strategies for integrating digital games into their teaching. Such programs can help teachers of all ages develop the skills and confidence needed to effectively use digital games as educational tools (Ertmer et al., 2012).

2.5 Best Practices for DGBL and DGBLL

2.5.1 Alignment with Curriculum

For DGBL and DGBLL to be effective, they must be seamlessly integrated into the curriculum. This involves selecting games that align with specific educational and linguistic skills and curricular goals. Educators should ensure that gaming activities are relevant to the learning objectives and provide meaningful opportunities for practice (Garris et al., 2002). Scaffolding learning experiences within the game context can also help students build on their existing knowledge and skills (Hmelo-Silver, 2004).

Chapelle and Jamieson (2008) emphasize the importance of aligning digital games with learning objectives to maximize their educational potential. Games should be chosen based on their ability to target specific skills, such as critical thinking, problem-solving, and language skills like vocabulary, grammar, listening, and speaking. Additionally, educators

should consider how games can be integrated into existing curricular frameworks to complement traditional teaching methods.

Moreover, effective alignment requires careful planning and coordination. Teachers need to identify clear learning outcomes and design gaming activities that support these goals. This may involve modifying game content, creating supplementary materials, and providing guidance to help students connect their gaming experiences with broader learning objectives (Chapelle & Jamieson, 2008).

2.5.2 Customization and Adaptation

Customizing and adapting game content to meet the diverse needs of learners is another aspect of best practice in DGBL and DGBLL. Games should be selected and modified to accommodate different learning styles, proficiency levels, and interests (Gee, 2003).

Allowing students to choose games that align with their preferences can enhance motivation and engagement (Klopfer, Osterweil, & Salen, 2009).

Research by Klopfer et al. (2009) suggests that customization can significantly enhance the effectiveness of digital games for learning. By tailoring game content to align with learners' interests and needs, educators can create more personalized and engaging learning experiences. For example, games can be modified to include specific tasks, cultural references, and real-world scenarios that are relevant to learners' lives.

In addition to customizing content, educators should consider how game mechanics can be adapted to support different learning styles. Visual learners may benefit from games with rich graphical interfaces, while auditory learners may prefer games with strong audio components. By providing options for customization, educators can create inclusive learning environments that cater to a wide range of learners (Gee, 2003).

2.5.3 Formative Assessment and Feedback

Incorporating formative assessment mechanisms within the gaming environment is crucial for monitoring student progress and providing feedback. Quizzes, checkpoints, and progress trackers embedded in games can offer real-time insights into learners' skills and help teachers adjust instruction accordingly (Bauer & Zapata-Rivera, 2012). These assessments should

align with learning objectives and standards to ensure validity and reliability (Chapelle & Douglas, 2006).

Formative assessment in DGBL and DGBLL can take various forms, including in-game quizzes, reflective journals, and peer assessments. These tools provide opportunities for learners to demonstrate their skills and receive immediate feedback on their performance. Research by Shute and Ke (2012) indicates that formative assessments can enhance learning outcomes by helping students identify areas for improvement and guiding their learning processes.

Moreover, formative assessments should be designed to align with the specific goals of the curriculum. For example, if the objective is to improve problem-solving or language skills, assessments should focus on learners' ability to strategize and solve problems or produce and comprehend spoken and written language. By aligning assessments with curricular goals, educators can ensure that gaming activities contribute meaningfully to meeting learning outcomes (Chapelle & Douglas, 2006).

2.5.4 Professional Development and Support

Ongoing professional development and support are essential for teachers to effectively implement DGBL and DGBLL. Training programs should focus on selecting appropriate games, integrating them into the curriculum, and using them to scaffold learning experiences (Ertmer et al., 2012). Additionally, creating collaborative networks and communities of practice can facilitate the sharing of best practices and resources among educators (Bennett et al., 2008).

Professional development initiatives should be comprehensive and continuous, addressing both technical skills and pedagogical strategies. Workshops, webinars, and online courses can provide teachers with the knowledge and skills needed to effectively use digital games in their classrooms. Additionally, mentorship programs and peer support networks can offer ongoing assistance and guidance as teachers implement DGBL and DGBLL strategies (Ertmer et al., 2012).

Furthermore, institutional support is critical for the success of professional development efforts. Schools and educational organizations should prioritize investments in training and

support for teachers, ensuring that they have access to the resources and expertise needed to integrate digital games into their teaching practices (Helsper & Eynon, 2010).

2.6 Perceptions of DGBL and DGBLL

2.6.1 Educators' Perceptions

Positive perceptions

Many educators view DGBL and DGBLL positively, recognizing their potential to motivate and engage students. The interactive nature of digital games provides an immersive learning environment that can capture students' attention and maintain their interest in educational content. According to a study by Kebritchi, Hirumi, and Bai (2010), teachers reported that DGBL increased student engagement and participation in class activities. The ability of games to provide immediate feedback and rewards was seen as a significant factor in sustaining students' motivation and encouraging continuous learning.

Moreover, educators appreciate the capacity of DGBL and DGBLL to cater to diverse learning styles. Digital games often incorporate visual, auditory, and kinaesthetic elements, making them suitable for different types of learners. As Prensky (2001) highlights, the multimodal nature of digital games allows for a more inclusive learning experience, accommodating students who might struggle with traditional instructional methods.

Additionally, some educators perceive DGBL and DGBLL as means to promote critical thinking, problem-solving, and language skills. Games that require strategic planning, decision-making, and the application of knowledge to complex scenarios can help students develop higher-order cognitive skills. Gee (2003) argues that the challenges presented in games can mirror real-life problems, providing students with opportunities to practice and refine their problem-solving abilities in a safe and controlled environment.

Challenges and Concerns

Despite the positive perceptions, educators have also expressed concerns about the implementation of DGBL and DGBLL. One major challenge is the potential for distraction. Some teachers worry that the entertainment value of games might overshadow the educational content, leading students to focus more on gameplay than on learning objectives

(Wouters et al., 2013). This concern is particularly relevant in classrooms where maintaining discipline and focus can be challenging.

Another significant concern is the lack of resources and support for integrating DGBL and DGBLL into the curriculum. Effective use of digital games in education requires access to appropriate technology, software, and professional development for teachers. In a survey conducted by the Joan Ganz Cooney Center (Takeuchi & Vaala, 2014), educators cited insufficient technology and lack of training as major barriers to adopting DGBL and DGBLL. The need for ongoing technical support and curriculum alignment further complicates the integration process.

Moreover, educators are cautious about the potential for unequal access to technology. Schools in under-resourced areas may struggle to provide the necessary infrastructure for DGBL and DGBLL, leading to disparities in educational opportunities. Ertmer et al. (2012) emphasize the importance of addressing these equity issues to ensure that all students can benefit from the advantages of digital learning tools.

Digital Natives vs. Digital Immigrants

The generational divide between digital natives and digital immigrants also influences educators' perceptions of DGBL and DGBLL. Digital natives, who have grown up with technology, are more comfortable with incorporating digital games into their teaching practices. They tend to see DGBL and DGBLL as natural extensions of their technological fluency and are more likely to experiment with innovative instructional methods (Bennett et al., 2008).

In contrast, digital immigrants—those who have had to adapt to technology later in life—may feel less confident and more sceptical about using games in education. Helsper and Eynon (2010) suggest that digital immigrants often require more extensive training and support to overcome their apprehension and effectively integrate DGBL and DGBLL into their teaching. Bridging this generational gap is essential for the widespread adoption of these methods across different educational contexts.

2.6.2 Students' Perceptions

Increased Engagement and Motivation

Students generally perceive DGBL and DGBLL positively, particularly in terms of engagement and motivation. Digital games are inherently appealing to many students, offering a fun and interactive way to learn. A study by Papastergiou (2009) found that students who used educational games reported higher levels of enjoyment and interest compared to traditional learning methods. The immediate feedback and rewards provided by games can also boost students' motivation to persist with challenging tasks.

Moreover, students appreciate the opportunity to learn at their own pace. Digital games often allow for personalized learning experiences, where students can progress through levels and challenges based on their individual abilities. This flexibility helps to accommodate different learning speeds and preferences, making education more tailored to each student's needs (Griffiths, 2002).

Enhanced Learning Outcomes

In addition to increased engagement, students perceive DGBL and DGBLL as beneficial for enhancing learning outcomes. Games that incorporate educational content can help students reinforce their knowledge and apply what they have learned in practical scenarios. Research by Annetta et al. (2009) indicates that students who participated in game-based learning activities performed better in assessments compared to those who used traditional learning methods.

Students also value the interactive and hands-on nature of digital games. Unlike passive forms of learning, such as lectures, games require active participation, which can lead to deeper understanding and retention of information. The experiential learning opportunities provided by games can make abstract concepts more concrete and accessible (Kolb, 1984).

Social Interaction and Collaboration

Many students enjoy the social aspects of DGBL and DGBLL. Multiplayer games offer opportunities for collaboration and communication, allowing students to work together to achieve common goals. This social interaction can enhance learning by providing

opportunities for peer support and knowledge sharing (Voulgari & Komis, 2010). Additionally, the collaborative nature of multiplayer games can help students develop important social and teamwork skills.

However, it is important to note that students' experiences with DGBL and DGBLL can vary widely depending on the design and implementation of the games. Not all educational games are equally effective, and poorly designed games can lead to frustration and disengagement. Therefore, it is crucial for educators to carefully select and evaluate games to ensure they meet educational standards and provide meaningful learning experiences (Gee, 2003).

2.6.3 Researchers' Perceptions

Theoretical and Empirical Support

Researchers have extensively studied the theoretical foundations and empirical outcomes of DGBL and DGBLL, generally supporting their potential benefits for education. Theoretical frameworks such as constructivism and situated learning provide a strong basis for understanding how games can facilitate learning. Constructivist theories suggest that learners construct knowledge through active engagement and interaction with their environment (Piaget, 1952), which is a key component of many digital games.

Empirical studies have provided evidence of the effectiveness of DGBL and DGBLL in various educational contexts. For instance, Wouters et al. (2013) conducted a meta-analysis of thirty-nine studies on serious games and found that game-based learning significantly improved cognitive, motivational, and behavioural outcomes compared to traditional instructional methods. These findings highlight the potential of DGBL and DGBLL to enhance both the process and outcomes of learning.

Ongoing Debates and Research Gaps

Despite the positive findings, researchers acknowledge that there are ongoing debates and research gaps in the field of DGBL and DGBLL. One major area of contention is the long-term impact of game-based learning. While short-term studies have shown positive results,

there is a need for longitudinal research to determine whether the benefits of DGBL and DGBLL are sustained over time (Sitzmann, 2011).

Another important consideration is the quality of educational games. Not all games are created equal, and the design and implementation of games can greatly influence their effectiveness. Researchers emphasize the need for rigorous evaluation and quality control to ensure that educational games meet high standards and provide meaningful learning experiences (Van Eck, 2006).

Additionally, there is a need for more research on the specific mechanisms through which games facilitate learning. Understanding how different game elements—such as narratives, feedback, and interactivity—contribute to learning outcomes can help educators design more effective game-based learning experiences (Squire, 2011). This research can also inform best practices for integrating games into the curriculum and maximizing their educational potential.

2.7 Future Directions for DGBL and DGBLL

2.7.1 Technological Advancements

The future of DGBL and DGBLL is closely tied to technological advancements. Emerging technologies such as virtual reality (VR) and augmented reality (AR) offer new possibilities for creating immersive and interactive learning experiences. These technologies can provide students with realistic simulations and virtual environments where they can practice skills and apply knowledge in ways that were previously not possible (Johnson & Becker, 2019).

Artificial intelligence (AI) also holds promise for enhancing DGBL and DGBLL. AI can be used to create adaptive learning systems that respond to individual students' needs and provide personalized feedback and support. This can help to address some of the challenges associated with one-size-fits-all approaches to education and ensure that all students can benefit from game-based learning (Chen, 2018).

2.7.2 Educational Policies and Practices

For DGBL and DGBLL to reach their full potential, there is a need for supportive educational policies and practices. Policymakers should recognize the potential value of digital games as

educational tools and provide funding and resources to support their integration into the curriculum. This includes investing in technology infrastructure, professional development for teachers, and research on best practices for DGBL and DGBLL (Ertmer et al., 2012).

Educational institutions should also promote a culture of innovation and experimentation, encouraging teachers to explore new instructional methods and incorporate digital games into their teaching. By fostering a supportive environment, schools can help teachers overcome the barriers to DGBL and DGBLL and create engaging and effective learning experiences for students (Helsper & Eynon, 2010).

2.7.3 Research Question

Studies that have examined teachers' perceptions of digital game-based language learning have often included participants that have very little or no experience with playing games themselves or using games in the classroom. Díaz-Larenas et al. (2023), for example, carried out a quantitative study of the perceptions of 72 Chilean student language teachers, aged from 18 to 24 years old. While, as a group, 94% had played video games, as student teachers they had little to no experience in using games in the language learning context. Similarly, Chik (2011), who studied the perceptions of experienced English teachers in Hong Kong about the use of gaming in their classroom, found that many had limited experience with video gaming, considered themselves digital immigrants, and had not used gaming in their classroom because they had a general perception that games had no educational benefits. Hsu and Beasley (2019) found similar results in their study of Taiwanese EFL teachers, revealing that while many of the teachers acknowledged the potential benefits of digital games for language learning, they had concerns about their own lack of experience and confidence in using these tools effectively. Additionally, (Eyal et al., 2023) investigated the perceptions of pre-service teachers in the United States and found enthusiasm for integrating games but noted that many felt unprepared and lacked the necessary skills and gaming experience to implement game-based learning effectively.

In an attempt to extend the findings of research on language teachers' perceptions of digital game-based language learning, this exploratory dissertation will examine the views of a

group of experienced language teachers who have *already* incorporated games into their classrooms. As such it will seek to answer the following question:

What are the perceptions of language teachers who have experience integrating gaming elements within their classroom practices, towards the use of digital game-based language learning?

Additionally, and unlike the studies mentioned above which typically focus on a singular demographic of participants, this exploratory study will seek to include participants representative of different nationalities, ages, and with varying levels of gaming experience.

2.8 Conclusion

The perceptions of DGBL and DGBLL among educators, students, and researchers highlight its potential as a transformative approach to education. While there are challenges and concerns, the benefits of DGBL and DGBLL—in terms of engagement, motivation, and learning outcomes—are well-documented. As technology continues to evolve, there are exciting opportunities for enhancing game-based learning and addressing the existing barriers. By supporting research, development, and innovation, stakeholders such as board members in educational settings or teacher communities, can help to realize the full potential of DGBL and DGBLL and create more effective and engaging learning experiences for all students. As such, and in an attempt to extend research on language teachers' perceptions of digital game-based learning, this exploratory dissertation will examine the views of experienced teachers who have already integrated games into their classrooms. Previous studies have tended to involve participants with minimal or no gaming experience.

The next chapter will delve into the research methodology used in this study. It will outline the research design, participants, data collection methods, and data analysis procedures. By providing a detailed account of the research process, the next chapter will set the stage for the presentation and discussion of the results.

3.0 Methods

3.1 Introduction

To answer the research question “What are the perceptions of language teachers, who have integrated gaming elements within their classroom practices, towards the use of digital game-based language learning?”, this exploratory study will employ a thematic analysis that seeks to uncover the key issues and beliefs held by language teachers, who have in some form, or another used games in their teaching practice. In order to enhance the validity and depth of the study’s findings and make them more applicable to a broader language educational context, the participants interviewed were also representative of different nationalities, ages, and had varying levels of gaming experience.

The chapter is structured as follows: first, an overview of the research paradigm is presented, followed by a detailed description of the thematic analysis method used for the study. Subsequently, the participant selection and data collection processes are discussed, along with the analytical procedures used to interpret the data. Issues related to thematic analysis are addressed, and ethical considerations are reviewed. The chapter concludes with a summary and a preview of Chapter 4.

3.2 Research Paradigm

This study adopts a qualitative research paradigm, utilizing thematic analysis (Braun & Clarke, 2006; Maguire & Delahunt, 2017) to explore the language teachers’ perceptions towards the use of gaming in the language learning classroom. The qualitative approach aligns with a social constructionist worldview, which posits that knowledge is constructed through social interactions and experiences (Creswell & Poth, 2018). This epistemological perspective is important for studying how educators view innovative methods such as the use of video games for language teaching. It helps explore how their beliefs, attitudes, and teaching practices are shaped by interactions with students, colleagues, and the broader educational environment.

Social constructivists believe that individuals strive to understand the world they inhabit and work in. People create subjective interpretations of their experiences, focusing on specific

objects or phenomena (Creswell & Poth, 2018). These interpretations are diverse and numerous, prompting researchers to explore the complexity of perspectives rather than reducing them to a few categories or ideas. The aim of the research is to capture the participants' perspectives on the studied situation as thoroughly as possible. Therefore, questions are designed to be broad and general, allowing participants to shape the meaning of a situation through their discussions or interactions with others

3.3 Method

Thematic analysis was chosen as the primary method for this study). Thematic analysis is a qualitative analytic method used for identifying, analysing, and reporting patterns (themes) within data. It provides a flexible and useful research tool that can provide a rich and detailed, yet complex, account of data. (Braun & Clarke, 2006; Dörnyei, 2007; Maguire & Delahunt, 2017). This method was particularly suitable for this study as it allowed for an in-depth exploration of the diverse and nuanced perspectives of language teachers on the use of video games in education.

Thematic analysis, as described by Braun and Clarke (2006), involves several stages that facilitate a thorough examination of qualitative data. These stages include familiarization with the data, coding, theme development, and refinement. This systematic analytical procedure, which ensures that the analysis is rigorous and that the themes identified are grounded in the collected data, is described in detail in the following sections.

3.4 Participants and Data Collection

Participants

Participants were selected using convenience sampling. Convenience sampling is a non-probability sampling technique where researchers select participants based on their easy availability and proximity. This method is often employed when time and resources are limited, making it a practical option for exploratory research. However, it can lead to biases, as the sample may not be representative of the broader population (Tsindos, 2023).

The study involved ten language teachers, with five participants from New Zealand and five from Oman. Convenience sampling was employed due to its practicality and ease of access to

participants who were willing and available to participate in the study, and who the researcher was aware had some experience of the use of digital games in the language learning classroom. This approach, while not as rigorous as random sampling, is effective in qualitative research where the focus is on gaining in-depth insights from participants with knowledge of the phenomenon under investigation. Ten participants were selected, a number deemed to be a suitable sample, given the short six month time constraint of the researcher’s dissertation study.

Furthermore, in order to enhance the validity and depth of the exploratory study’s findings, the participants selected were representative of different nationalities, ages, and had varying levels of gaming experience. This can be seen in Table 1, which shows the nationality, location where the participant is currently teaching, whether they are a digital native or immigrant (i.e., have grown up with digital technology from an early age or was born before the widespread adoption of digital technology), and the level of their gaming experience. The researcher was based in Oman and New Zealand during the research period, and thus, the participants were from these two countries. However, given the broad demographics of Oman and New Zealand, this enabled the selection of teachers representing a wide range of nationalities.

Table 1: Participant Demographics

	Nationality	Location where currently teaching	Digital native or Immigrant	Gaming experience
1	Iraqi	New Zealand	Immigrant	Middle
2	New Zealand	New Zealand	Immigrant	Low
3	Spanish	New Zealand	Immigrant	Middle
4	Spanish	New Zealand	Native	Middle
5	Canadian	Oman	Native	Low
6	United States	Oman	Native	Middle
7	Italian	Oman	Native	High
8	Syrian	Oman	Native	High
9	English	Oman	Immigrant	Low
10	Romania	New Zealand	Native	High

Furthermore, all participants irrespective of their background, experience, or teaching approach, incorporated some form of gaming element within their classroom practices. Gaming elements are understood in this context as including educational video games, game-based learning platforms, interactive simulations, online competitive quizzes, gamified lesson plans, or any other activity that involves digital game-like mechanics. From this point, the study will use the term “digital games” to include these various platforms.

Data Collection

Data were collected through semi-structured interviews, allowing for in-depth discussions and the flexibility to explore emerging themes. The interviews were conducted either face-to-face or via video conferencing, depending on the participants’ location and preference. Semi-structured interviews are particularly advantageous in qualitative research as they provide a balance between guided questions and the freedom for participants to express their views in their own terms (Creswell & Poth, 2018).

The interview guide included questions designed to elicit detailed responses about participants’ experiences, attitudes, and perceptions regarding the use of video games in language learning. The list of indicative questions used in the study can be found in Appendix A.

3.5 Analytical Procedure

The thematic analytical procedure involved the following six-step process, as outlined by Braun and Clarke (2006):

- *Familiarization with the Data:* As well as transcribing the interviews, this step involved reading and re-reading the data, and noting down initial ideas, so as to become intimately familiar with its content.
- *Generating Initial Codes:* During this step, meaningful segments of data were identified and labelled with codes that represent the essence of the content, relative to the research question. This process was iterative and involved revisiting the data multiple times to refine and consolidate codes.

- *Searching for Themes:* This step involved examining the codes and identifying patterns or themes that captured significant aspects of the data. Themes are broader than codes and represent meaningful patterns within the data.
- *Reviewing Themes:* In this step, themes were reviewed and refined to ensure they accurately reflected the data. This involved merging, splitting, or discarding themes to ensure coherence and consistency.
- *Defining and Naming Themes:* This step involved providing detailed descriptions and names for each theme, ensuring that they were clear and distinct.
- *Producing the Report:* This step involved writing up the analysis and selecting illustrative quotes from the data to support the themes.

NVivo software was used to assist with the data management and analysis. The use of NVivo facilitated the organization and retrieval of data, making the coding process more efficient. NVivo was also useful for schematically illustrating the codes as they emerged through the coding process and the larger themes that emerged from the analysis (Figure 1). The initial codes were reviewed and validated by the researcher and supervisor to ensure reliability and consistency.

Figure 1 Illustration of initial codes from NVivo.

Name	Files	References
Benefits_of_Immersion		8 16
Challenges_in_Digital_Education		9 50
Challenges_of_Educational_Apps_and_Games		9 39
Competitiveness_and_Motivation		6 20
Digital_Games_Effectiveness		9 52
Digital_Natives_vs_Traditional		7 13
Educational_Apps_and_Games		9 15
Engagement		9 28
Fun_Engaging_Learning		8 20
Games_Integration		9 19
Generational_Gap_Teaching		7 15
Impact_of_Technology_on_Education		9 47
Importance_of_Communication		5 18
Importance_of_Need_Learning		7 15
Integration_of_Video_Games		7 19
Online_Teaching_Pandemic		8 18
Positive_Aspects_Online_Teaching		6 9
Positive_Impact_of_Gaming_on_Learners		8 34
Relationship_Building		4 8
Resources		5 20
Teacher's_Perspective_on_Gaming		8 115
Tech_Advancements_Pandemic		6 16
Tech_in_Language_Education		9 32
The_Future_of_Language_Learning		9 38

3.6 Issues with Thematic Analysis

A key limitation of thematic analysis lies in its interpretative nature, where the identification and analysis of themes heavily rely on the researcher's perspective (Braun & Clarke, 2006). This subjectivity can lead to variations in the analysis, where different researchers might identify different themes within the same dataset. Regular meetings with the research supervisor provided opportunities for discussing coding decisions and resolving discrepancies, thus enhancing the reliability of the analysis. Another challenge associated with thematic analysis is the potential for researcher bias. As researchers bring their own perspectives and experiences to the analysis, it is crucial to acknowledge and reflect on these influences. Reflexivity involves being aware of one's own biases and how they may affect the interpretation of the data (Terry et al., 2017). By engaging in reflexive practices, researchers can strive to produce a more balanced and objective analysis (Nowell et al., 2017).

3.7 Ethics

Ethical approval for the study was obtained from the AUT Ethics Committee. All participants provided informed consent prior to their participation, and confidentiality was maintained by anonymizing the data and securely storing all research materials. Informed consent involved explaining the purpose of the study, the procedures involved, and the participants' rights, including the right to withdraw from the study at any time without penalty.

Confidentiality was ensured by assigning pseudonyms to participants and removing any identifying information from the data. Ethical considerations also included being mindful of the potential impact of the research on participants and ensuring that the research was conducted with respect and sensitivity.

Ethical considerations extended to the potential implications of the research findings. The study aimed to contribute to the understanding of how video games can be integrated into language education, with the potential to inform educational practices and policies. As such, the research was conducted with a commitment to producing findings that are both academically rigorous and practically relevant.

3.8 Conclusion

This chapter has outlined the research methodology used to explore language teachers' perceptions of video games in language learning. The qualitative paradigm, guided by a social constructionist worldview, provided a suitable framework for investigating the subjective experiences and attitudes of the participants. Thematic analysis was chosen for its flexibility and ability to provide a rich, detailed account of the data.

The next chapter will present the findings from the thematic analysis, providing detailed insights into the key themes identified in the data. These findings will contribute to a deeper understanding of the potential and challenges of integrating video games into language education. By examining the perspectives of language teachers, who have some experience in the use of games in their classroom, this study aims to inform pedagogical practices and support the effective use of video games as educational tools.

Chapter 4: Results

4.0 Introduction

This section presents the outcomes of a thematic analysis aimed at identifying salient themes related to the use of digital games in language learning, as perceived by language teachers with experience of digital game use in the language learning classroom.

The analysis revealed five key themes emerging from the data:

1. Motivation and engagement
2. Teacher challenges with video game integration
3. Perceptions on best practices
4. Perceptions on changing technology
5. Perceptions on the future of video game language learning

These themes provide valuable insights into the complex impact of digital games on language students' learning experiences. The findings related to each theme will be discussed in detail in the following sections.

4.1 Motivation and Engagement

This section first discusses the positive perceptions of language teachers regarding the impact of digital games on student motivation and engagement. Teachers frequently perceived digital games as fostering intrinsic motivation (Dörnyei & Ushioda, 2011) among students, giving them a sense of autonomy, competence, and relatedness within the game-based learning environment. They also noted that digital games provided immediate feedback, which encouraged students to persevere in their language learning endeavours, and that the immersive and interactive nature of digital games enhanced student engagement by encouraging active participation in language tasks set within the game's context.

Conversely, concerns were raised by some teachers who perceived a potential decrease in student motivation associated with the use of digital games in language learning. These teachers suggested that certain students became overly focused on the gaming aspect rather than the language learning objectives, leading to a decline in their motivation to engage with

traditional language learning materials and activities. This dual perspective sheds light on the complex dynamics surrounding the effectiveness of digital games in language learning and underscores the importance of considering both the benefits and drawbacks of using games in the language educational context.

4.1.1 Positive Perceptions

A prevalent theme that emerged from the interviews was the view that the incorporation of digital games into the learning process resulted in enhanced intrinsic motivation among language learners. Teachers suggested that this is because digital games inherently appeal to students' interests and preferences, thereby encouraging an instinctive inclination towards language acquisition. As an example, one participant articulated this sentiment by stating:

Digital games tap into students' motivation. They willingly engage in language activities within the game environment, driven by their desire to progress and succeed within the game narrative.

Moreover, participants noted that the interactive and immersive nature of digital games creates an environment conducive to autonomous learning. They stated that digital games "empower students to take ownership of their learning journey", and that they are "motivated to explore and experiment with language within the game world". They believed that this facilitated increased autonomy and self-directed learning.

In addition to fostering intrinsic motivation, interviewees highlighted the potential of digital games to bolster extrinsic motivation through gamification techniques. By integrating game elements such as points, rewards, and leaderboards into language learning activities, the teachers observed a surge in students' learning engagement. One of the teachers elaborated on this aspect, stating, "...gaming instils a sense of achievement and competitiveness among students". This arises as students are motivated to accumulate points, unlock achievements, and surpass their classmates, thus stimulating their extrinsic drive to succeed in learning the language.

Furthermore, participants noted how the element of competitiveness and the challenges embedded within digital games stimulates students' perseverance and resilience in

overcoming linguistic obstacles. One interviewee noted, “Digital games present students with progressively challenging tasks” and that this “cultivates a growth mindset wherein students view language learning as a journey of continuous improvement, thereby enhancing their motivation to persist despite setbacks.”

The immersive nature of digital games also emerged as a pivotal factor contributing to heightened engagement among language learners. Participants emphasized how the interactive and multisensory elements of digital games captivate students’ attention and sustain their engagement throughout the learning process. One of the teachers explained their views, stating, “Digital games provide a multi-modal experience that appeals to diverse learning styles. Students are actively immersed in the virtual environment, which enhances their focus and concentration on language learning tasks.”

Moreover, participants highlighted the role of narrative-driven gameplay in fostering emotional engagement and empathy among students. One interviewee claimed that “digital games often feature compelling narratives and diverse characters, which resonate with students on an emotional level.” This statement was echoed by another who stated that, “emotional engagement not only enhances their language comprehension but also cultivates empathy and cultural awareness.”

4.1.2 Negative Perceptions

While many of the interviewees shared positive outlooks on the idea of implementing digital games in language learning, a similar theme emerging from the data indicating that some of the participants saw a potential in digital games to diminish student motivation. Often, these comments mirrored those in the previous section, providing a negative counterpart to positive observations regarding the motivating impact of digital games. While positive feedback highlighted digital games’ ability to boost intrinsic motivation, negative comments focused on extrinsic motivation. Teachers were concerned that students might prioritize gaming rewards over language learning goals and that competitive elements could lead to disengagement among less proficient learners.

One key finding among these participants was the perception that digital games could undermine students' extrinsic motivation in language learning. Participants highlighted the allure of digital games' immediate rewards and gratification, contrasting these with the delayed and often intangible outcomes of language acquisition. One of the teachers expressed concern that students might prioritize gaming achievements over language learning goals, stating that, "...instant feedback and rewards in games can overshadow the long-term benefits of mastering a language". They suggested that as a result students may become "disappointed with traditional learning methods as they seek the instant gratification offered by gaming."

Moreover, interviewees underscored the potential for digital games to foster competitive disengagement among students, impeding their extrinsic motivation to engage in language learning activities. One of the interviewees, cautioned against the unintended consequences of gamified learning environments:

While competition can be a powerful motivator, it can also alienate students who perceive themselves as falling behind their peers. In multiplayer games, weaker language learners may feel discouraged by their comparative lack of proficiency, leading to disengagement from the learning process.

Furthermore, interviewees explained the detrimental impact of digital games on students' intrinsic motivation to learn a language. Participants emphasized the immersive and captivating nature of gaming experiences, suggesting that prolonged exposure to virtual worlds could diminish students' interest in real-world language acquisition. Another participant noted that digital games have the potential to "replace genuine curiosity and passion for language learning with passive consumption and escapism". They stated that students "may become more invested in virtual quests than in the exploration of languages and learning in general."

Finally, interviewees underscored the risk of overemphasizing entertainment value at the expense of educational efficacy in gamified language learning environments. Several participants expressed scepticism regarding the capacity of digital games to sustain students' motivation beyond superficial engagement. They believed that while gaming can enhance engagement initially, after time its novelty may wear off, leaving students disengaged. They

thought it best to strike a balance between entertainment and educational substance to ensure that digital games serve as a medium rather than a hindrance to motivation.

In conclusion, teachers' perceptions of digital games in language learning reveal both significant advantages and notable concerns. Digital games can enhance motivation, foster autonomy, and create an engaging learning environment. However, there are concerns about potential distractions from traditional learning, competitive disengagement, and passive consumption.

These perspectives are not strictly generational. Both digital natives and digital immigrants acknowledged the benefits, but concerns were shared across the board. Digital immigrants found implementation challenging, suggesting a need for support and training.

This dual perspective highlights the complexity of integrating digital games into language learning. While the potential benefits are considerable, they must be balanced against potential drawbacks to develop effective and inclusive strategies.

4.2 Teacher challenges with video game integration

A second salient theme identified in the analysis concerned the challenges of using digital games in the language learning context. This involved two prominent sub-themes: the challenge for digital immigrants and resource constraints.

4.2.1 Challenge for digital immigrants.

The phenomenon of the generation gap was prominent in the language teacher's views on integrating digital games into language learning. This gap, often characterized as the disparity in digital fluency and technological affinity between younger, digitally native educators and their older, digital immigrant counterparts, significantly influenced the participants' attitudes towards the incorporation of digital games into pedagogical practices.

Half of the participants in the study could be defined as digital natives and for this particular cohort the integration of digital games into language instruction represented a seamless extension of their technological fluency. They perceived gaming as a familiar and engaging

medium that aligned with the preferences and learning styles of their digital native students. One teacher, for example, stated, “Growing up with digital games, I understand their appeal and potential for increasing learning. It’s like speaking the same language as my students.”

Conversely, the digital immigrants; often confronted greater challenges in embracing innovative teaching methodologies centred around digital games. As one participant reflected:

I didn’t grow up with digital games, so I struggle to see how they can contribute meaningfully to language learning. It feels like a departure from what I know works in the classroom.

This cohort of educators tended to harbour scepticism or apprehension towards incorporating gaming elements into their pedagogical repertoire, citing concerns about their efficacy, relevance, or alignment with established educational practices.

The generational gap in attitudes towards digital games highlights broader differences in educational philosophies, comfort levels with technology, and perceptions of pedagogical innovation. The younger teachers, having grown up immersed in digital culture, largely viewed technology as an inherent component of contemporary education, while older educators mainly perceived it as a disruptive force or optional addendum to traditional teaching methods.

4.2.2 Resource Constraints

The problem of resource constraints also emerged as an extensive barrier hindering the effective integration of digital games into language instruction. Language teachers consistently voiced concerns regarding the limited availability of financial resources allocated towards procuring educational gaming software and hardware and suggested that this impeded their ability to leverage digital games as a pedagogical tool.

At the heart of this issue lies the disparity between the perceived potential of digital games to enhance language learning outcomes and the practical challenges posed by budgetary constraints. Many educators expressed frustration over the inability to access high-quality educational games that align with their curriculum due to financial limitations. As one teacher

lamented, “We recognize the value of incorporating digital games into language learning, but without sufficient funds, we are unable to provide our students with the necessary resources.”

Furthermore, the scarcity of financial resources exacerbated existing inequalities in access to educational technology, disproportionately affecting schools serving disadvantaged communities. Those teachers working in under-resourced schools, in particular, highlighted the stark reality of operating within tight budgetary constraints, stating that it severely limited their capacity to invest in educational gaming software, hardware, and infrastructure.

Moreover, the increasing costs associated with maintaining and updating educational gaming resources presented an ongoing challenge for schools and educators. As technology evolves rapidly, educational gaming software and hardware require regular updates and maintenance to remain effective and relevant. However, for the teachers the financial burden of these ongoing expenses often exceeded the budgetary constraints of their educational institutions, resulting in outdated or obsolete gaming resources that they often stated failed to meet their needs and those of their students.

In addition to financial constraints, the majority of the language teachers also highlighted the importance of technical support and professional development opportunities to effectively integrate digital games into language instruction. However, limited funding often precluded their schools from providing comprehensive training and support for teachers seeking to incorporate gaming-based approaches into their pedagogical practices. One participant who articulated this sentiment, stated:

While recognizing the potential benefits of incorporating digital games in language teaching, it’s important for educators to receive training. Unfortunately, budget limitations mean there is a struggle to provide comprehensive professional development opportunities.

As a result, educators may lack the necessary skills and knowledge to effectively utilize digital games as a tool for language learning, further exacerbating the challenges associated with resource constraints.

Overcoming these obstacles requires targeted interventions aimed at fostering digital literacy among teachers, addressing disparities in access to educational resources, and advocating for

greater investment in educational technology infrastructure. The challenges identified in integrating digital games into language learning reflect broader issues of digital literacy and resource accessibility within educational contexts. The generation gap observed between digital natives and digital immigrants underscores the need for targeted professional development initiatives aimed at fostering technological fluency among educators of all ages. Bridging this gap requires a shared understanding of the pedagogical rationale behind incorporating digital games into language instruction, emphasizing their potential to enhance student engagement and proficiency.

4.3 Perceptions on best practices

During the interviews, the participants frequently shared their perspectives on the most effective methods for utilizing digital games in educational settings. These insights predominantly centred on several key areas: the seamless integration of gaming elements into the curriculum, the adaptation and tailoring of digital games to align with specific language learning contexts, the implementation of robust monitoring and assessment strategies to gauge student progress, and the provision of comprehensive professional development and support to facilitate teachers' adept utilization of digital games in their instructional practices.

4.3.1 Integration

The integration of digital games into the curriculum emerged as a key salient theme in the perceptions of language teachers regarding the effective use of gaming in language learning. Teachers emphasized the importance of aligning digital games with specific learning objectives, standards, and curricular requirements. This alignment was perceived as essential for ensuring that gaming activities contribute meaningfully to language proficiency development and overall educational outcomes. One teacher, for example, suggested that “digital games should not be selected arbitrarily, but rather based on their relevance to the linguistic skills and competencies targeted in the curriculum.” This sentiment highlights the strategic approach advocated by some teachers, wherein digital games are treated as instructional resources that supplement and enrich traditional language instruction.

Moreover, four out of the ten participants emphasized the potential of digital games to address diverse learning needs and preferences within the curriculum. One of these participants noted, “By incorporating a variety of gaming genres and formats, educators can cater to the diverse interests and learning styles of students.” This acknowledgment of learner diversity underscores the versatility of digital games as pedagogical tools that can accommodate a wide range of learners, from visual and kinaesthetic to auditory and linguistic.

Furthermore, a few teachers emphasized the importance of scaffolding learning experiences within the gaming context to facilitate skill development and language acquisition. One teacher believed that “integrating digital games into the curriculum requires careful planning and organizing” so that students are ensured of, “... progressive learning experiences that build upon students’ existing knowledge and skills.” This emphasis on scaffolding aligns with principles of instructional design, wherein teachers scaffold student learning by providing appropriate support and guidance within the gaming environment (Reiser & Dempsey, 2017)

4.3.2 Adaptation and Customization

The theme of adaptation and customization was another prominent topic that emerged from the analysis. A number of teachers highlighted the significance of adapting game content, mechanics, and challenges to align with language learning objectives and student proficiency levels. As one participant emphasized, “Customization allows us to modify game settings, adjust difficulty levels, and integrate language” to encourage “learning experiences that ensure ideal engagement and comprehension”. This comment indicates a positive perception of digital games as adaptable instructional tools that can be tailored, where necessary, to suit the specific linguistic and cognitive needs of learners.

Moreover, participants emphasized the importance of incorporating students’ interests and preferences into the selection and customization of digital games. One teacher, for example, noted, “By allowing students to choose games that resonate with their interests, educators can enhance motivation, engagement, and investment in language learning.” This recognition of student preference emphasizes the value of integrating learner-centred approaches within the gaming curriculum, where students play an active role in shaping their learning experiences.

Furthermore, a number of the teachers discussed the potential of game customization for addressing individual learning styles and preferences within the classroom. One teacher remarked that “adapting game mechanics and challenges to accommodate different learning styles, whether visual, auditory, or anything, promotes inclusive learning environments” and that because of this facility for adaptation “access to language learning opportunities is increased.” This increased inclusivity and the ability to cater for the diverse needs and abilities of learners, further underscores the significant role that games play in fostering learner engagement and success.

Additionally, three participants recognized the importance of providing opportunities for student-generated content and collaboration within the gaming environment.

Encouraging students to create their own game content, such as quests, dialogues, or narratives, promotes creativity, critical thinking, and language production skills.

According to participants the capacity for games to enable student-driven customization also adds to the potential of digital games as creative platforms for language learning.

4.3.3 Monitoring progress and Assessment

In the realm of integrating digital games into language teaching, the theme of monitoring progress and assessment emerged as a critical element to effective implementation.

Participants discussed the importance of implementing robust assessment strategies to track student performance, monitor language development, and evaluate the effectiveness of video game integration within language learning contexts. Within this theme participants also highlighted the necessity of incorporating formative assessment practices to inform instructional decision-making regarding monitoring students’ progress and to optimize specific language learning outcomes.

A number of participants discussed the value of integrating ongoing assessment mechanisms within the gaming environment to gauge student progress and proficiency levels, with one teacher indicating the type of assessments that could be used:

Regular formative assessments, such as quizzes, checkpoints, or progress trackers should be embedded within the game interface

According to this participant, the inclusion of such assessment mechanisms not only provides valuable insights into students' language skills, comprehension, and ability to meet learning objectives, but also establishes digital games as dynamic assessment tools that can offer real-time feedback and information about student performance, ultimately enhancing the learning experience for both students and teachers.

Moreover, some participants emphasized the importance of gathering assessment data from multiple sources to gain a comprehensive understanding of student learning and progress. One participant suggested that including in-game assessments, along with the assessments that the teachers create themselves, such as oral interviews, written reflections, or portfolio assessments “allows for a more complete evaluation of students' language proficiency and growth over time.” Such a multifaceted assessment framework is perhaps better suited to capture the complexity and range of language learning outcomes.

However, when discussing the development of assessment practices in games, teachers stressed the importance that they align with learning objectives and standards to ensure validity and reliability. One interviewee, for example, remarked that “assessment tasks should be closely aligned with the linguistic skills, competencies, and performance criteria outlined in the curriculum.”, while another similarly stated that doing so “allows for meaningful evaluation of students' language proficiency and progression.”

Additionally, participants pointed out the potential for gaming assessments to facilitate metacognitive awareness and self-regulated learning skills among students. One participant, for instance, discussed how “incorporating opportunities for self-assessment and reflection within the gaming environment encourages students to monitor their own progress” and that it was essential for students to “set learning goals and take ownership of their language learning journey.” Participants perceive this emphasis on metacognitive processes as highlighting the transformative potential of digital games to promote student agency, engagement, and autonomy within the gaming-based language learning context.

4.3.4 Professional Development and Support

The theme of professional development and support also emerged as pivotal for empowering educators to effectively harness the potential of gaming in language learning contexts. Participants underlined the value of ongoing training, resources, and collaborative networks to enhance teachers' pedagogical knowledge, technological proficiency, and instructional strategies related to video game integration.

The need for comprehensive professional development opportunities that provide educators with the knowledge, skills, and competencies necessary to use digital games effectively in language teaching was routinely discussed by participants. As an example, one teacher suggested that “professional development programs should offer training on selecting appropriate games, integrating them into the curriculum, and scaffolding learning experiences to maximize their educational impact.” Similarly, participants also emphasized the importance of access to resources and support networks that facilitate collaboration and the sharing of best practices for the use of games in language education. Another teacher noted, for instance, that “online forums or clubs, communities of practice, and professional learning communities” could serve as valuable platforms for exchanging ideas, troubleshooting challenges, and accessing curated resources related to video game-based language teaching.

Furthermore, most teachers stressed the need for institutional support and investment in the infrastructure, technology, and resources required to effectively integrate digital games within language teaching contexts.

Schools and educational institutions should provide access to gaming platforms, software tools, and technical support services to enable educators to implement video game-based language learning initiatives successfully.

They believed that stronger institutional support would empower educators to innovate and experiment with new instructional approaches offered by games. They also underlined the importance of staying ahead of emerging technologies, pedagogical trends, and research findings in the field of video game-based language learning. One teacher, for example, went on to state that continuous professional development was essential for educators to stay informed about new developments, so that they might, “refine their instructional practices, and adapt to evolving educational landscapes” including the use of games.

In conclusion, the insights shared by language teachers regarding best practices for integrating digital games into language learning underscore the importance of strategic planning, customization, ongoing assessment, and professional development. The emphasis on seamless integration within the curriculum, adaptation to specific learning contexts, and scaffolding of learning experiences reflects a nuanced understanding of the pedagogical potential of digital games. Moreover, the recognition of student agency, diverse learning styles, and collaborative opportunities within gaming environments highlights the need for learner-centred approaches in language education. Additionally, the emphasis on robust assessment strategies and comprehensive professional development underscores the critical role of ongoing support and institutional investment in maximizing the educational benefits of video game integration.

4.4 Perceptions on changing technology

This section discusses how the language teachers interviewed perceived changing technology as both an opportunity and a challenge in the realm of video game-based language teaching. What was apparent from the interviews was that technological advancements have facilitated increased technological literacy and expanded the scope of knowledge required of educators.

4.4.1 Facilitation of Technological Literacy

A prevalent theme emerging from the interviews was the notion that changing technology has facilitated an increased level of technological literacy among language teachers. Participants expressed how the integration of technology, especially games and digital games into language teaching necessitated a deeper understanding of related technological tools and platforms. One participant remarked:

Digital games, and technology in general, have pushed me to explore various digital tools and platforms to develop my teaching methods. I've had to become more proficient in navigating educational software and adapting them to suit language learning objectives.

This sentiment was echoed across multiple interviews, with teachers highlighting the need to continuously update their technological skills to remain effective educators in the digital age.

Nevertheless, the consensus among participants was that while the learning curve may initially be steep, the long-term benefits of acquiring technological literacy related to video game-based language teaching ultimately enhanced their overall teaching practices.

Several teachers noted that the integration of digital games into language learning curricula necessarily broadened the scope of technological knowledge required by educators. As one participant elaborated, “Incorporating digital games into language teaching demands not only a grasp of gaming platforms but also proficiency in multimedia but also in online collaboration tools.” As a result, some participants suggested it was necessary for language teachers to possess a more comprehensive understanding of various technological domains, beyond those merely related to digital games and their use.

Such comments express views regarding the complex nature of technological proficiency demanded by contemporary language teaching practices. As digital games continue to evolve alongside other technological advancements, teachers find themselves compelled to stay in the know of emerging technologies and their potential applications in language education. (Zhao et al., 2002)

4.4.2 Pedagogical Adaptation to Technological Changes

Another recurring theme identified in the interviews was the necessity for language teachers to adapt their pedagogical approaches in response to evolving technological landscapes. Participants highlighted the dynamic nature of video game-based language teaching, which they believed required educators to continually innovate and tailor their instructional methods to leverage new technological affordances. One participant suggested that “the rapid pace of technological advancement requires us to constantly adapt our teaching practices.” This was echoed by another teacher who stated that, as technology evolves, “so too must our teaching strategies to effectively harness their potential for language learning.”

Within this context, participants also emphasized the importance of fostering a culture of lifelong learning among language educators, where continuous professional development in technological proficiency is prioritized. Many of the teachers expressed a willingness to engage in ongoing training workshops and collaborative learning opportunities to enhance their pedagogical practices in alignment with technological advances.

4.4.3 Technological Integration Challenges

Despite recognizing the benefits of technological advancements in video game-based language teaching, participants also acknowledged the challenges associated with integrating new technologies into their teaching practices. Common concerns included issues of access and resources, as well as the potential for technological distractions to detract from language learning objectives.

Likewise, some participants expressed hesitation regarding the associated financial burdens of continuously updating educational resources. These challenges stressed the need for comprehensive institutional support and strategic resource allocation to facilitate effective integration of technology into language teaching curricula.

Language teachers perceive changing technology as both an opportunity and a challenge in the realm of video game-based language teaching. The facilitation of technological literacy among educators, driven by the integration of digital games and digital tools, underscores the need for ongoing professional development and adaptation to evolving pedagogical landscapes. While technological advancements broaden the scope of knowledge required of educators and enrich teaching practices in the long term, they also necessitate strategic resource allocation and pedagogical adaptation to address integration challenges effectively. Moreover, the dynamic nature of video game-based language teaching demands continuous innovation and ongoing learning among educators to harness the potential of emerging technologies for language learning. Despite the benefits offered by technological advancements, challenges such as access, resources, and potential distractions underscore the importance of comprehensive institutional support and strategic resource allocation in facilitating the effective integration of technology into language teaching curricula.

4.5 Perceptions on the future of video game language learning

This section delves into the future integration of gaming as a pivotal component of language learning methodologies. As technological advances continue to reshape educational landscapes, educators are increasingly contemplating the potential of gaming to greatly enhance language learning experiences. It provides a comprehensive examination of two key

themes that emerged from the analysis: the future role of gaming in language education and the impact of the COVID-19 pandemic on language teaching practices.

4.5.1 Future of gaming in language education

The first theme related to future perceptions of gaming that resonated across interviews involved the transformative impact of technological advancements on the accessibility and efficacy of digital games for language learning. Participants noted the increasing sophistication of gaming platforms, augmented reality (AR), and virtual reality (VR) technologies, which are expanding the possibilities for creating immersive and interactive language learning experiences. One teacher observed that “with the arrival of AR and VR technologies, we’re witnessing a shift in how we see language learning environments” adding that these innovations hold enormous potential for creating highly realistic and contextually rich language immersion experiences increasing student learning.

Furthermore, participants emphasized the growing accessibility of digital games across diverse devices and platforms, making them more widely available to learners of all backgrounds and demographics. One teacher stated, “The presence of smartphones, tablets, and gaming consoles has created easy access to digital games.” Another teacher reiterated this statement by saying that this ease of access, “...allows learners from various socioeconomic backgrounds to engage with interactive language learning resources.”

Despite recognizing the potential benefits of integrating digital games into language instruction, participants consistently emphasized the irreplaceable role of the teacher as a facilitator of learning. One interviewee explained:

While digital games may enhance language learning experiences, they cannot replace the essential role of the teacher in providing guidance and support to help individual student needs.

Moreover, participants emphasized the critical role of the teacher in mediating students’ interactions with digital games to ensure that learning objectives are met and that gaming experiences are aligned with curricular goals. As a participant remarked, “Teachers play a crucial role in selecting and integrating appropriate digital games into lesson plans”, stating

that this ultimately helps facilitate meaningful reflection on gaming experiences and connecting game-based activities to broader learning objectives.

Another emerging theme in discussions surrounding the future of gaming in language education was the integration of digital games into blended learning environments, where traditional instructional methods are supplemented by digital tools and resources. Participants envisioned a future where digital games are seamlessly integrated into a multifaceted approach to language instruction, complementing face-to-face interactions and providing additional avenues for student engagement and practice.

4.5.2 Impact of Covid

A dominant theme that was present in the interviews was the accelerated adoption of technology in response to the COVID-19 pandemic and associated lockdowns. Participants unanimously acknowledged the imperative need during the lockdowns to adapt instructional strategies to online platforms, thereby familiarizing themselves with a diverse array of digital tools and resources. One teacher remarked, “The pandemic forced us to embrace technology in our teaching practices like never before. We had to explore various online platforms and digital resources to ensure continuity in language instruction.”

Furthermore, participants noted that the transition to remote learning necessitated innovative approaches to engage students and maintain instructional continuity. While digital games were not commonly employed during this period, participants recognized the broader paradigm shift towards technology-mediated learning experiences as a precursor to the eventual integration of gaming into language education. An interviewee stated that “the pandemic compelled us to rethink our teaching methods and explore new avenues for delivering engaging and effective language lessons.” This statement was repeated numerous times by many of the participants, with one also expressing that while video game use in the classroom may not have been the primary resource used at the time, “...the experience laid the groundwork for their potential integration in the future.”

In light of this recent global event, another emergent theme in discussions surrounding the future of gaming in language education was the cultivation of digital literacy skills among both educators and students. Participants emphasized the need for ongoing professional development initiatives aimed at enhancing teachers’ proficiency in leveraging digital tools

and resources effectively, a theme previously mentioned before. As one participant noted, “The pandemic highlighted the importance of digital literacy skills in the modern educational landscape.”

Additionally, one prevailing sentiment expressed by participants was the anticipation of future integration of digital games into language education as a natural progression of technological advancements and pedagogical innovation. While acknowledging the current limitations and challenges associated with integrating gaming into traditional educational frameworks, participants expressed optimism about the transformative potential of digital games in enhancing language learning outcomes. One interviewee articulated:

While we may not have fully embraced digital games in language instruction yet, I believe it’s only a matter of time before they become integral components of our teaching strategies.

Furthermore, participants emphasized the need for strategic planning and collaboration among educators, policymakers, and game developers to ensure the responsible integration of digital games into language education. One teacher stated:

As we look towards the future, it’s crucial to approach the integration of digital games into language education with care. Collaboration between educators and game developers is essential to controlling the full potential of gaming as a tool for language learning.

The teacher highlighted the importance of aligning gaming experiences with curricular objectives, fostering critical thinking skills, and promoting inclusivity and accessibility in game design.

To conclude, language teachers envision a future where gaming becomes a pivotal component of language learning methodologies, driven by technological advancements and pedagogical innovation. The transformative impact of emerging technologies such as augmented reality (AR) and virtual reality (VR) on creating immersive language learning experiences underscores the potential of gaming to revolutionize language education. Despite the accelerated adoption of technology prompted by the COVID-19 pandemic, participants recognize the irreplaceable role of the teacher in mediating gaming experiences and ensuring

alignment with curricular goals. The pandemic experience has highlighted the imperative need for digital literacy skills among both educators and students, laying the groundwork for the future integration of gaming into language education. While challenges such as access, resource allocation, and curricular alignment remain, participants express optimism about the transformative potential of gaming in enhancing language learning outcomes.

4.6 Conclusion

Through thematic analysis, several key themes emerged, highlighting both the opportunities and challenges associated with integrating digital games into language education. Teachers acknowledged the potential of digital games to enhance student engagement, motivation, and proficiency, while also recognizing barriers such as digital literacy gaps and resource constraints. Moreover, participants envisioned a future where gaming becomes an integral component of language learning methodologies, driven by technological advancements and pedagogical innovation. However, they emphasized the need for strategic planning, professional development, and collaboration among stakeholders to ensure responsible integration and maximize the educational benefits of gaming in language education.

In the following chapter, the discussion delves into the implications of the findings presented in this study. The themes identified offer insights into the role of digital games in language education and highlight avenues for future research and practice. By critically analysing language teachers' perceptions of video game effectiveness, it can deepen the current understanding of this field and inform pedagogical approaches in language learning.

Chapter 5: Discussion

5.0 Introduction

In order to answer the question “What are the perceptions of language teachers who have integrated gaming elements within their classroom practices, towards the use of digital game-based language learning?”, this study conducted interviews and employed thematic analysis (Braun & Clarke, 2006; Dörnyei, 2007; Maguire & Delahunt, 2017) to identify insightful patterns in the data. This chapter will begin by exploring key observations from the interviews with language teachers regarding the integration of digital games into language learning. It will then delve into the multifaceted perspectives of these educators, examining the opportunities and challenges presented by gaming as a pedagogical tool. The chapter concludes with a discussion of the implications for teachers, institutions, and game designers, as well as the significance of the study and possibilities for future research.

5.1 Key Observations

The following sections provide a discussion of the key observations and insights emerging from the study. These are:

- The need to adopt a balanced approach that acknowledges both the positive and negative aspects of using digital games in the classroom.
- The need for institutions to foster a culture of technological innovation and inclusion.
- The importance of aligning gaming elements with curricular goals to enhance language proficiency.
- The significance of dynamic and aligned assessment practices within gaming environments.
- The necessity of facilitating technological learning and pedagogical adaptation among educators.
- The indispensable role of the teacher in guiding and mediating gaming experiences.
- The impact of the COVID-19 pandemic on the adoption of digital games in language education.

5.1.1 Adopting a Balanced Approach

The analysis of language teachers' perceptions regarding the integration of digital games into language learning programmes reveals a multifaceted view of the potential benefits and concerns associated with this pedagogical approach. An overarching theme highlighted by participants is the capacity of digital games to bolster intrinsic motivation among language learners. This aligns with contemporary research that discusses motivation in language learning contexts (Dörnyei & Ushioda, 2011). The immersive and interactive nature of digital games fosters autonomy, competence, and relatedness, crucial components of intrinsic motivation (Deci & Ryan, 2000), thereby enhancing students' engagement with language learning tasks. Moreover, the provision of immediate feedback within digital games has been shown to positively influence motivation and perseverance in language acquisition (Garris et al., 2002), underscoring the potential of gaming environments to sustain learners' interest and commitment. However, the teachers also expressed reservations regarding the potential for digital games to overshadow language learning goals, with some students becoming overly fixated on gaming rewards rather than linguistic proficiency. This echoes literature emphasizing the need to balance intrinsic and extrinsic motivators in game-based learning environments to optimize learner engagement and achievement (Wouters et al., 2013).

Furthermore, the discourse surrounding the integration of digital games into language learning curricula underscores the importance of striking a delicate balance between entertainment value and educational efficacy. While digital games offer immersive experiences that captivate learners' attention, there is a concern among educators that an overemphasis on entertainment may undermine the pedagogical objectives of language learning. This aligns with the argument put forth by Gee (2003), who advocates for the creation of "semiotic domains" that effectively integrate entertainment and learning objectives to ensure meaningful engagement and learning outcomes. Moreover, contemporary research emphasizes the need for critical evaluation of the long-term educational impact of digital games, beyond initial engagement, to ensure sustained motivation and achievement (Shelton & Scoresby, 2010). The dual perspective presented by language teachers offers valuable insights into the complex dynamics surrounding the effectiveness of digital games in language learning, emphasizing the necessity of adopting a balanced approach that harnesses the motivational benefits of gaming while addressing potential drawbacks to optimize learning outcomes.

5.1.2 Fostering an Institutional Culture of Technological Innovation and Inclusion

The study highlights the significant impact of generational differences in attitudes towards integrating digital games into language learning. It supports existing scholarship that shows younger educators, often called digital natives, view digital games as a natural extension of their technological fluency, aligning well with the preferences and learning styles of contemporary students (Bennett et al., 2008). Conversely, older educators, classified as digital immigrants, frequently express more reluctance towards incorporating gaming elements into their teaching practices (Helsper & Eynon, 2010). This phenomenon, commonly termed the “digital divide”, highlights the persistent challenges faced by educators in bridging the gap between differing levels of digital literacy across generations. As observed in the study, this divide not only influences educators’ attitudes towards digital games but also shapes their perceptions of pedagogical innovation and the role of technology in education.

Addressing the generational gap in attitudes towards digital games necessitates targeted interventions aimed at fostering digital literacy among educators of all ages. Research suggests that professional development initiatives focusing on technology integration can effectively enhance educators’ confidence and competence in utilizing digital tools for teaching and learning (Ertmer et al., 2012). Furthermore, promoting a shared understanding of the pedagogical benefits of incorporating digital games into language instruction is essential for cultivating a culture of innovation and adaptation within educational settings (Bennett et al., 2008). By providing educators with opportunities for ongoing training and support in digital pedagogy, educational institutions can empower teachers to overcome the challenges posed by the digital divide and harness the potential of digital games as a transformative educational tool.

In addition to professional development, systemic changes are needed to address broader issues of resource accessibility and equity in education. As highlighted by the teachers in the study, financial constraints present a significant barrier to the effective integration of digital games into language instruction, particularly in schools serving disadvantaged communities. Research emphasizes the importance of equitable access to educational technology and resources in promoting inclusive and effective learning environments (Means et al., 2013). Advocating for increased funding for educational technology initiatives and providing targeted support for under-resourced schools can help mitigate disparities in access to gaming

software, hardware, and infrastructure. Moreover, sustained investment in the development and maintenance of educational gaming resources is essential to ensure their relevance and effectiveness in enhancing language learning outcomes. By addressing these systemic challenges and fostering a culture of technological innovation and inclusion, educators can work towards realizing the full potential of digital games as a valuable tool for language education in the digital age.

5.1.3 Relevance to the Individual Needs of Learners

The integration of digital games into language learning environments is a multifaceted endeavour that requires careful consideration of pedagogical objectives and curricular alignment. The findings from the interviews with language teachers underscored the importance of seamlessly integrating gaming elements into the curriculum to enhance language proficiency development. This aligns with existing literature highlighting the significance of instructional alignment in educational game design (Garris et al., 2002). By selecting games based on their relevance to specific linguistic skills and competencies, educators can ensure that gaming activities contribute meaningfully to language learning outcomes. Moreover, the emphasis on scaffolding learning experiences within the gaming context resonates with principles of instructional design, wherein educators provide structured support to facilitate skill development (Hmelo-Silver, 2004).

Furthermore, the theme of adaptation and customization emerged as a central aspect of effective video game integration in language learning. The insights shared by teachers regarding the customization of game content and mechanics align with research emphasizing the importance of learner-centred approaches in educational game design (Gee, 2003). By allowing students to choose games that align with their interests and preferences, educators can enhance motivation and engagement in language learning activities. Additionally, the ability to adapt game mechanics to accommodate diverse learning styles promotes inclusivity within the classroom (Klopfer et al., 2009). This finding underscores the transformative potential of digital games as pedagogical tools that can cater to the individual needs and abilities of learners.

5.1.4 Dynamic and Aligned Assessment

In terms of monitoring progress and assessment, the insights shared by teachers highlight the importance of implementing robust assessment strategies within the gaming environment. The integration of formative assessment mechanisms, such as quizzes and progress trackers, reflects a shift towards dynamic assessment practices that provide real-time feedback to students (Chapelle & Douglas, 2006). Moreover, the discussion surrounding the alignment of assessment tasks with learning objectives and standards underscores the importance of validity and reliability in gaming assessments (Bauer & Zapata-Rivera, 2012). By leveraging digital games as assessment tools, educators can not only track student performance but also promote metacognitive awareness and self-regulated learning skills (Hacker et al., 2009). This highlights the potential of digital games to serve as dynamic learning environments that foster both language acquisition and assessment practices.

5.1.5 Facilitating Technological Learning and Pedagogical Adaption

The findings of this study illuminate the intricate relationship between changing technology and language teaching practices, particularly in the context of video game-based language instruction. One salient theme that emerged from the interviews was the facilitation of technological literacy among language teachers. As educators integrate digital games and digital tools into their teaching repertoire, they are compelled to enhance their proficiency in navigating educational software and adapting technological platforms to suit language learning objectives. This aligns with previous research emphasizing the importance of technological literacy in modern education (Zhao et al., 2002). Zhao et al. argue that educators must develop a deep understanding of digital tools to effectively integrate technology into teaching practices, echoing the sentiments expressed by participants in this study. Furthermore, as highlighted by the participants, the long-term benefits of acquiring technological literacy ultimately enrich educators' overall teaching practices, aligning with the argument put forth by Mishra and Koehler (2006) regarding the transformative potential of technological integration in education.

Moreover, the dynamic nature of video game-based language teaching necessitates continual pedagogical adaptation in response to evolving technological landscapes. Participants emphasized the importance of innovation and the need to tailor instructional methods to leverage new technological affordances. This resonates with the concept of technological

pedagogical content knowledge (TPACK), which emphasizes the interplay between technological, pedagogical, and content knowledge in effective teaching (Koehler & Mishra, 2009). The findings suggest that language educators must possess a nuanced understanding of how to integrate technology into pedagogical practices to optimize learning outcomes. Additionally, fostering a culture of lifelong learning among educators is imperative, as highlighted by the participants.

5.1.6 The Indispensable Role of the Teacher

The findings resonate with existing literature to indicate that the teachers interviewed value the transformative potential of technology to enhance language learning. They agree with Johnson and Becker (2019), for example, who argue that technological advancements, including augmented reality (AR) and virtual reality (VR), are reshaping language learning environments by offering engaging immersive and interactive experiences. Nevertheless, while acknowledging the benefits of integrating gaming into language instruction, the participants consistently emphasized the indispensable role of the teacher in guiding and mediating gaming experiences. This aligns with the findings of Li and Ma (2010), who assert that the teacher's guidance is crucial in ensuring that gaming activities align with curricular goals and promote meaningful learning outcomes. This study extends this argument by highlighting the need for teachers to select and integrate appropriate digital games into lesson plans, fostering reflection and connecting gaming experiences to broader learning objectives (Li & Ma, 2010). Additionally, participants envisioned a future where digital games are seamlessly integrated into blended learning environments, complementing traditional instructional methods. This aligns with the concept of hybrid learning, as discussed by Garrison and Kanuka (2004), wherein technology is strategically utilized to enhance face-to-face interactions and provide diverse avenues for student engagement (Garrison & Kanuka, 2004).

5.1.7 COVID-19 as a Catalyst for Technology in Language Education

The COVID-19 pandemic acted as a catalyst for the accelerated adoption of technology in language teaching practices. These findings echo the sentiments of Lim and Lee (2021), who suggest that the pandemic prompted educators to explore innovative approaches to deliver engaging and effective language lessons in online environments. While digital games were not extensively utilized during the pandemic, this study suggests that the experience laid the

groundwork for their potential integration in the future (Lim & Lee, 2021). Furthermore, the pandemic underscored the importance of digital literacy skills among educators and students, aligning with the arguments put forth by Mundy and Kupczynski (2019).

5.2 Implications

5.2.1 Implications for teachers

The insights gleaned from the analysis carry significant implications for language teachers engaging with video game integration in language learning contexts. Firstly, the findings underscore the importance of undertaking professional development initiatives aimed at fostering digital literacy among educators of all ages.

Secondly, the study highlights the indispensable role of teachers in guiding and mediating gaming experiences to ensure alignment with curricular goals and promote meaningful learning outcomes. This supports previous research emphasizing the teacher's facilitation as crucial in enhancing the educational potential of gaming activities (Li & Ma, 2010).

Lastly, the study suggests the need for language teachers to strike a balance between entertainment value and educational efficacy when integrating digital games into language learning environments. By adopting a balanced approach that harnesses the motivational benefits of gaming while addressing potential drawbacks, educators can optimize learning outcomes for their students (Wouters et al., 2013). Therefore, language teachers should critically evaluate the suitability of digital games for their specific pedagogical contexts and adapt their instructional practices accordingly.

5.2.2 Implications for institutions

The findings of the study carry significant implications for educational institutions seeking to enhance language teaching practices through the integration of digital games. Firstly, addressing the generational gap in attitudes towards digital games necessitates strategic interventions aimed at fostering digital literacy among educators. Institutional support for professional development initiatives focusing on technology integration can play a crucial role in enhancing educators' proficiency in utilizing digital tools for teaching and learning (Bennett et al., 2008).

Research also suggests that such initiatives can enhance educators' confidence and competence in utilizing digital tools for teaching and learning (Ertmer et al., 2012). Therefore, educational institutions should prioritize ongoing training and support in digital pedagogy to empower teachers to effectively integrate digital games into language instruction.

Moreover, systemic changes are needed to address broader issues of resource accessibility and equity in education. Financial constraints present a significant barrier to the effective integration of digital games into language instruction, particularly in institutions serving disadvantaged communities. Therefore, on the one hand, educational institutions should advocate for increased funding for educational technology initiatives, while on the other, government agencies should provide targeted support to under-resourced schools to address disparities in access to gaming software, hardware, and infrastructure.

Furthermore, sustained investment in the development and maintenance of educational gaming resources is essential to ensure their relevance and effectiveness in enhancing language learning outcomes. By prioritizing resource allocation for the creation and upkeep of high-quality educational games, institutions can maximize the educational potential of gaming as a tool for language education in the digital age.

5.2.3 Implications for game designers

The findings of the study offer valuable insights for game designers tasked with developing educational games for language learning purposes. Firstly, the emphasis on instructional alignment underscores the importance of designing games that are relevant to specific

linguistic skills and competencies. Game designers should collaborate closely with language educators to ensure that gaming activities contribute meaningfully to language learning outcomes (Garris et al., 2002).

Moreover, the theme of adaptation and customization highlights the need for game designers to create flexible gaming experiences that cater to the individual needs and preferences of learners. By allowing for the customization of game content and mechanics, designers can enhance motivation and engagement in language learning activities while promoting inclusivity within the classroom (Klopfer et al., 2009).

Lastly, the study emphasizes the importance of robust assessment mechanisms within gaming environments to track student performance and promote metacognitive awareness. Game designers should prioritize the integration of formative assessment mechanisms, such as quizzes and progress trackers, to provide real-time feedback to students and support their language acquisition journey (Bauer & Zapata-Rivera, 2012)

5.3 Significance of the study

This study makes a unique contribution to the field of language education by exploring the integration of digital games as pedagogical tools through the lens of teachers who are already experienced in using games in their classrooms. This specific focus allows for more nuanced and informed findings, offering deeper insights into how digital games can be effectively utilized in language learning.

The research extends existing literature by not only supporting previous studies but also providing new perspectives. One of the significant new insights is the impact of the COVID-19 pandemic on the adoption and integration of digital games in language education. The pandemic accelerated the use of technology in teaching, highlighting both opportunities and challenges that were previously underexplored.

Furthermore, the study emphasizes the role of digital games in addressing diverse learner needs and promoting inclusivity within language learning environments. This is particularly important as it suggests that digital games can be tailored to support various learning styles and preferences, making language education more accessible and engaging for all students.

In summary, this study adds to the scholarly discourse on game-based language learning by offering practical implications for educators, institutions, and game designers. It highlights the need for a balanced approach in integrating digital games into curricula, underscores the importance of professional development for teachers, and advocates for systemic changes to support technological inclusion and innovation in education.

5.4 Limitations

Despite its contributions, this study is not without limitations. Firstly, the sample size of the language teachers interviewed may limit the generalizability of the findings. However, as an exploratory study, which was a small dissertation component of a master's program, the study did not aim to necessarily generalise, but to provide initial insights and identify possible areas for future research. Furthermore, while efforts were made to ensure diversity in participants' backgrounds and teaching contexts, the perspectives captured may not fully represent the entire spectrum of language educators' views on gaming in language learning. Additionally, the reliance on self-reported use of games in teaching environments from interviews introduces the potential for social desirability bias, wherein participants may provide responses they perceive as favourable rather than reflecting their true opinions. Moreover, the cross-sectional nature of the study restricts the ability to draw causal conclusions or assess the long-term effects of video game integration on language learning outcomes.

Future research employing longitudinal designs could address this limitation by examining changes in attitudes and behaviours over time. Finally, the study primarily focused on the perceptions of language teachers, overlooking the perspectives of students and other stakeholders involved in language education. Incorporating multiple perspectives would provide a more comprehensive understanding of the challenges and opportunities associated with gaming in language learning. Despite these limitations, this study lays the groundwork for future research endeavours aimed at advancing the understanding of the role of digital games in language education and informing evidence-based practices for educators and policymakers.

5.5 Possibilities for future research

While this study provides valuable insights into the integration of digital games into language learning, several avenues for future research emerge. Firstly, longitudinal studies could explore the long-term effects of video game integration on language proficiency development and learner engagement. By tracking students' progress over an extended period, researchers can assess the sustainability of motivation and the effectiveness of gaming in achieving language learning outcomes.

Additionally, comparative studies could investigate the efficacy of different types of digital games, such as immersive role-playing games versus educational simulations, in enhancing language learning outcomes across diverse learner populations. Furthermore, research exploring the potential of emerging technologies, such as virtual reality and artificial intelligence, in augmenting gaming experiences for language learners would provide valuable insights into the future of game-based language instruction.

Moreover, the same study design could be conducted with a larger and more diverse sample of participants to enhance the generalizability of the findings. Expanding the participant pool would provide a broader perspective on the integration of digital games in language learning and help to validate the study's conclusions across different educational contexts and demographic groups.

By addressing these research gaps, scholars might further advance understanding of the complex dynamics surrounding the use of digital games in language education and inform evidence-based practices for educators and policymakers.

5.6 Conclusion

In conclusion, the thematic analysis of the perceptions of language teachers' who have experience using games in language education can provide valuable insights into the complex dynamics surrounding the integration of digital games into language learning programs.

Through the exploration of themes such as intrinsic motivation, entertainment versus educational efficacy, challenges with integration, and perceptions on best practices, this study

illuminates the opportunities and challenges inherent in utilising digital games as a pedagogical tool.

The findings underscore the importance of adopting a balanced approach that harnesses the motivational benefits of gaming while addressing potential drawbacks to optimize learning outcomes. Language teachers play a pivotal role in guiding and mediating gaming experiences to ensure alignment with curricular goals and promote meaningful learning outcomes. Moreover, educational institutions must address systemic challenges related to resource accessibility and equity to facilitate the effective integration of digital games into language instruction.

Looking ahead, the future of video game-based language learning holds promise, particularly in the context of technological advancements and the evolving landscape of language education. By embracing innovative approaches and fostering collaboration among stakeholders, educators, institutions, and game designers can work towards realizing the full potential of digital games as a transformative tool for language education in the digital age.

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Appendix A

Indicative Interview questions:

Who are you?

Where are you from?

Can you tell me about your experience in teaching languages, for example, how many years have you been teaching, and at what levels?

What do you consider to be the most effective teaching methods or strategies in language instruction?

How do you perceive digital games in general?

Are digital games part of your own or your family's leisure activities?

Do you think playing digital games can influence behaviour or learning?

In your opinion, what benefits do you think digital games bring to language instruction?

What potential drawbacks or challenges do they bring?

What key factors have influenced your decision to use digital games for language learning?

What types of digital games do you typically use for language instruction?

How often do you incorporate these into your language teaching?

In what ways do you find them effective?

Could you describe some specific instances where you have used digital games in your language lessons?

What language skills or learning objectives did they address?

How do you assess the impact of digital game-based language learning on your students' learning?

How effective do you believe game-based learning is compared to traditional teaching approaches?

What kind of support or resources would better help you use digital games for language learning?

Looking ahead, how do you envision the role of digital games evolving in language instruction in the future?

Are there any specific advancements or features in digital games that you would like to see, which could further support language learning in the classroom?

