



**Exploring gamification within the teaching and learning of  
isiZulu First Additional Language: A case study on the use  
of Kahoot to motivate young learners**

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Date of submission: 2 November 2023

## **Declaration**

I, **NOLUTHANDO NOXOLO CHILIZA**, declare that:

- (i) The research reported in this dissertation, except where otherwise indicated, is my original work.
- (ii) This dissertation has not been submitted for any degree or examination at any other university.
- (iii) This dissertation does not contain other persons' data, pictures, graphs, or other information unless specifically acknowledged as being sourced from other persons.
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Date: 31 October 2023

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## **Dedication**

To my beloved Granny, whose wisdom and unwavering support have been a guiding light throughout my life, teaching me the value of resilience and the importance of family.

To my beloved Mother, whose strength, sacrifice, and boundless encouragement have been the cornerstone of my journey. You are my role model, and this achievement is as much yours as it is mine.

To my precious daughters, Amahle Sphesihle Chiliza and Anathi Abongwe Snazo Chiliza, who have filled my life with joy, purpose, and a deeper understanding of the world. May this thesis serve as a reminder that knowledge, hard work, and perseverance can shape a brighter future for you both. This thesis is dedicated to each of you with profound appreciation and boundless love. Your presence in my life has been the driving force behind my academic journey, and I hope to make you proud.

With all my love,

Noluthando Noxolo Chiliza

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I also owe a debt of gratitude to my grandmother, Mrs. Thembani Chiliza. Her generous care for my two precious daughters allowed me to dedicate my time to complete the research. Her prayers have not only protected me but have also provided me with the strength to continue when problems seemed challenging. Her encouragement has been a constant source of motivation, and her love is an inspiration of my hope.

My mother, Jabulile Chiliza, has been a solid pillar of support in my educational journey. She ensured that I had all the resources and encouragement I needed to excel in my academics. Her endless love has been a source of unwavering strength, and I am deeply thankful for her support.

My two beloved daughters, Amahle Sphehile and Anathi Abongwe Snazo Chiliza, are the lights of my life. They are my ultimate source of inspiration and motivation. I am forever grateful for the blessing of having such beautiful princesses in my life. Their growth and well-being are my driving force, and I am determined to provide them with a bright and promising future. My wish is to be a role model for them in the realm of education, instilling in them the values of perseverance, learning, and determination.

The support and love I have received from my family, and my mentor have been involved in shaping my academic journey and making this research possible. I am thankful to each of them for their unwavering encouragement and belief in my abilities.

## **List of Abbreviations**

FAL	First Additional Language
GSRS	Game-based Student Response Systems
GBL	Game-based learning
MCO	Movement control order

## **Abstract**

Traditional methods of second language learning, especially in the case of isiZulu as a First Additional Language (FAL), have often been analysed for their tedious and grammar-focused nature. These traditional methods can lead to a loss of learner commitment and inspiration. The outcome of this research study suggests that learners become disinterested due to the outdated and uninspiring teaching methods used for African languages like isiZulu. Therefore, this study seeks to explore the integration of Kahoot as an advanced instrument within the isiZulu FAL classroom to advance a more engaging and collaborative learning environment.

Kahoot!, a popular gamification platform, allows learners to participate with isiZulu FAL in a fun and encouraging manner. This method signifies a departure from traditional teaching methods, aiming to reignite learners' curiosity and excitement for the language. However, there is a lack of research investigating integrating technology and gamification into the teaching and learning of isiZulu FAL, making this study particularly significant and innovative.

The research targets grades 4,5 and 6 learners, aiming to evaluate the influence of Kahoot! on their isiZulu FAL learning experience. Data collection for this study is facilitated using an online questionnaire via Google Forms, allowing for effective and appropriate data gathering. Additionally, classroom observations provided a constructive qualitative perception of the learners' interactions with Kahoot! and their overall learning experiences.

Existing research has proven that gamification-based platforms like Kahoot! can effectively motivate learners and advance language learning outcomes. Kahoot! is an active and engaging tool for both teaching and assessment purposes. This study aimed to contribute to the existing understanding by investigating the benefits and challenges of applying Kahoot! within the isiZulu FAL classroom by leveraging these findings.

Drawing on support from previous studies that have emphasised the language learning effectiveness of Kahoot!, this research endeavours to offer perceptions and suggestions for the improved integration of Kahoot! into the isiZulu FAL curriculum. The study seeks to investigate the perception of Kahoot! as an instrumental resource for educators and learners alike, encouraging effective language learning within the isiZulu FAL context.

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## **CHAPTER ONE: INTRODUCTION**

### **1.1. Introduction**

The research study investigates the innovative approach of incorporating gamification into the educational process to improve the acquisition of isiZulu, a FAL, among young learners. The study centres around using Kahoot!, a popular online game-based learning platform, to engage and motivate learners while facilitating language learning.

In Section 1.2, a background to the study and an introduction to Kahoot! as a technology platform to develop learners' perception of learning isiZulu FAL, the historical and contextual context of the study are presented. This section explores the broader language education landscape, specifically focusing on the challenges and opportunities associated with teaching isiZulu as a FAL. It emphasizes the significance of advanced technological tools in addressing these challenges and introduces Kahoot! as a specific technology platform that can potentially improve learners' perception of learning isiZulu.

Section 1.3, "Purpose of the study," explains the primary goal and intention of the research. It outlines the necessary purposes behind conducting this study, emphasizing the need to explore the effect of Kahoot! as a technology platform in teaching and learning isiZulu FAL.

Section 1.4, "Problem statement," details the educational issues or gaps this study seeks to address. This section provides a comprehensive investigation of the existing limitations and challenges within the current approach to teaching isiZulu FAL, setting the stage for the significance of the study's findings.

Section 1.5, "Objectives of the study," outlines the specific goals that the research seeks to achieve. These objectives provide a clear roadmap for the study's method and analysis, showcasing the expected outcomes of the research.

Section 1.6, "Research questions," underlines the investigation that the research aims to answer. These research questions serve as guiding principles for the study and help structure the investigation into the impact of Kahoot! on learners' perception of learning isiZulu.

Section 1.7, "Outline of the study," concludes the chapter by presenting a comprehensive overview of the structure and organization of the entire research. This section provides readers with a preview of the subsequent chapters, emphasizing the arrangement of topics, methods, and expected progression of the study.

## **1.2. Background to the study**

In recent years, gamification has been increasingly used within the language classroom. The rationale for applying gamification in this study arises from the need to improve isiZulu language learning in young learners. The researcher is motivated to understand isiZulu first additional language (FAL) learners' perceptions using Kahoot!, an online educational game. Kahoot! can support learning and teaching. Kahoot! can be applied live or virtually in distance learning. Kahoot! is useful for promoting learning by involving learners in problem-solving activities. Whilst there is wide research on Kahoot! in global language learning, there is a lack of empirical data on teaching and learning African languages using Kahoot! Hence, this study attempts to fill this empirical gap in the learning and teaching of isiZulu FAL using gamification methods such as Kahoot! It is envisaged that this study may enhance isiZulu FAL learners' motivation and engagement in the classroom.

## **1.3. Purpose of the study**

Previous research on Game-based Student Response Systems (GSRS) has shown that they effectively improve engagement, motivation, and learning performance, as explained above. On the other hand, the use in the isiZulu FAL classroom has rarely been estimated. As a result, this study aimed to explore the use of GSRS Kahoot! to encourage young learners in the teaching and learning of isiZulu FAL.

The study aimed to conduct qualitative data analysis by reporting on learners' feedback to understand learners' perceptions of Kahoot! better. The study expects to show how Kahoot! can motivate isiZulu FAL learners to address the research purpose. To overcome the challenges confronting Kahoot! whilst improving its sustainability, this study aims to impact a possible narrative towards exploiting gamification to allow the comprehension of the values of Kahoot! in teaching and learning isiZulu FAL.

Since Kahoot! is widely applied, the outcomes and contributions of this study may be applicable across teaching and learning African languages using gamification platforms like Kahoot! It is estimated that the findings and recommendations of this study may inform practical implementations of gamification in teaching and learning African languages.

#### **1.4. Problem statement**

Some of the constant challenges educators face are lack of motivation, lack of awareness and distraction from learners caused by devices. These challenges can be addressed by combining GSRs as it may achieve more effective teaching and learning, as it is assumed to be an excellent way to combine meaningful learning with fun. Although there are many studies on GSRs, there has been no study on GSRs with isiZulu FAL in previous studies. Whilst gamification may offer resolutions to many of the challenges faced in the isiZulu FAL classroom, if the issue of learner engagement and motivation is not undertaken, this will negatively affect the use of GSRs in the isiZulu FAL classroom. Moreover, the problem is a lack of technological integration in the isiZulu language and learning.

#### **1.5. Research objectives**

This study aims to explore gamification within the teaching and learning of isiZulu First Additional Language: A case study on using Kahoot! to motivate young learners.

Considering the above, the study sought to achieve the following objectives:

1. To understand learners' perceptions using Kahoot! in the isiZulu FAL classroom.
2. To explore the effectiveness of Kahoot! on isiZulu FAL learners.
3. To critique the Kahoot! platform on isiZulu FAL learning.

#### **1.6. Research questions**

The following research questions are addressed in this study:

1. What are learners' perceptions of the use of Kahoot!?
2. How does Kahoot! affect isiZulu FAL learning?
3. Why is the Kahoot! platform considered beneficial for isiZulu FAL learning?

## **1.7. Outline of the research**

This dissertation is organized into six chapters.

### **Chapter one**

The first chapter is the introduction, which includes the study's history, stated issue, research objectives, research questions, the purpose of the study, chapter organization, and conclusion.

### **Chapter two**

This chapter consists of multiple sections, each addressing specific aspects. It explains what gamification and several definitions of gamification are discussed. The section has two other sub-topics. Gamification in education is discussed. A review of gamification in education highlights how gamification is being applied in the educational system. Gamification in the second language teaching and learning is reviewed. It provides Kahoot! definitions from scholars. Kahoot! in education is discussed. The review of using Kahoot! in language teaching and learning is highlighted. A discussion of Kahoot!'s advantages and disadvantages is discussed. Learner's engagement and motivation using Kahoot! in isiZulu FAL is reviewed. A review of learners' perspectives on using Kahoot! in isiZulu FAL is discussed. The use of technology in teaching and learning isiZulu FAL is explained. Technology and gamification in teaching and learning isiZulu is discussed.

### **Chapter three**

The third chapter gives a conceptual framework related to the study. Two theories are discussed: cognitive theory and constructivism theory. Each explains how these theories contribute to learners' views and motivation within the teaching and learning environment. Kahoot! gamification is used by Zulu FAL.

### **Chapter four**

Chapter four provides an outline of a research methodology which guided the current study. Moreover, Chapter 4 addresses issues relating to this study's research design: the study population and the sampling technique used. In addition, the following issues are also addressed: instrumentation, data collection procedures, and data analysis techniques for the current study.

**Chapter five**

The fifth chapter of the study provides a thematic and descriptive analyses of the study outcomes, organized according to the research questions outlined at the beginning of the study. This section presents both qualitative and quantitative aspects of the research. The findings related to the study questions and the existing literature is also presented.

**Chapter six**

The findings and conclusions are summarized. This chapter also gives recommendations based on the study findings, and ultimately, the gaps are noted. Future research directions are stated.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1. Introduction**

This chapter analyses the literature exploring gamification with isiZulu, the first additional language for Grade 4, 5 and 6 learners at a South African private school. This chapter is divided into four sections. Section 2.2. provides several definitions of what gamification and several definitions of gamification are discussed. Gamification in education is discussed in 2.2.1. A review of gamification in education highlights how gamification is being applied in the educational system. Gamification in the second language teaching and learning is reviewed in 2.2.2. Section 2.3. defines game-based learning. Section 2.4 provides Kahoot! definitions from various scholars. Kahoot! in education is discussed in 2.4.1. The review of Kahoot! in language teaching and learning is highlighted in 2.4.2. A discussion of Kahoot!'s advantages and disadvantages is discussed in 2.4.3. Learner's engagement and motivation using Kahoot! in isiZulu FAL is reviewed in 2.4.4. The use of technology in teaching and learning isiZulu FAL is explained in section 2.5.

### **2.2. What is gamification?**

Gamification is defined as the process of incorporating game elements like competition, learning goals, and rewards into various activities, and is increasingly used in learning environments to enhance learner inspiration and improve learning outcomes (Deterding, 2012). This approach, as outlined by Michos (2017), aims to leverage game elements in non-game situations to boost motivation, attention, and other positive qualities associated with games. Hamari, Koivisto, and Sarsa (2014) emphasize the complexity of gamification by focusing on encouraging affordances and behaviour modification as primary objectives.

Initially emerging in 2002 and gaining widespread recognition by 2010, gamification, defined by Deterding (2012, p. 14-17), involves the integration of game design elements into non-game contexts, linking back to established concepts in gaming, collaboration, and technology. Researchers have further elaborated on gamification, describing it as the application of game components, mechanics, features, and design in non-game settings (Attali and Arieli, 2015; Bruder, 2015; Davis, 2014; Kapp, 2013; Whitton, 2012).

Expanding on these definitions, Simoes, Redondo, and Vilas (2013) highlight the infusion of game principles and dynamics into non-game applications, while Kapp (2013) underscores

how gamification engages individuals, inspires learning, and addresses issues through game-based mechanics and aesthetics. Baptista and Oliveira (2019) further elaborate on gamification as the utilization of game mechanics beyond traditional gaming contexts.

Deterding (2012) notes the flexibility of gamified systems, which can be serious or light-hearted without requiring a complete gaming setup. The industry has seen a surge in gamified solutions in recent years (Burke, 2014; Huotari and Hamari, 2012), with a focus on blending education, literacy, and 21st-century learning skills in participatory learning environments (Kingsley and Grabner, 2015). Gamification's interdisciplinary appeal spans various research fields, including education, psychology, game theory, design, human-computer interaction, digital information systems, business, and medicine (Mora et al., 2017), with a strategic integration of game design aspects while maintaining the instrumental aims of the target system (Liu et al., 2017).

### ***2.2.1. Gamification in education***

Gamification in education involves integrating game elements into the educational environment to enhance student engagement and motivation (Dichev and Dicheva, 2017). Educational gamification entails the implementation of game-like rule systems, player experiences, and cultural duties to influence learner behaviour positively (Lee & Hammer, 2011). The use of learner-centred game elements in non-game educational contexts to enhance the overall learning experience characterizes educational gamification (Johnson et al., 2013). In the field of education, the utilization of gamification is increasing, especially in language education, despite the limited research in this domain. While gamification has found application in diverse settings, its prominence in educational environments is noteworthy (Hamari et al., 2014; Seaborn and Fels, 2015). Numerous studies have presented that integrating digital games into teaching-learning processes has positive outcomes (Whitton, 2014).

In this literature review, gamified language learning experiences are discussed, including learning and teaching perceptions and the usage of new technological instruments. Second language learning and instruction have seen improvements, with a growing emphasis on technological integration, as stated by Figueroa-Flores (2015). Digital games for language learning have been employed in foreign language schools (Alyaz and Genc, 2016).

Learner achievement, attitudes, and motivation toward lessons are all positively impacted by the gamification of the educational process. Gamifying learning methods could significantly enhance the learning performance of learners when engaged in a stand-alone informational activity (Landers and Landers, 2014; Ortiz-Rojas et al., 2017; Dichev and Dicheva, 2017).

The strategy in this study revolves around the implementation of gamification in educational settings, with a specific focus on its effectiveness in facilitating language acquisition. Gamification is described as a successful method that positively influences motivation and engagement within the realm of language learning. De-Marcos et al. (2017) highlight how gamification tackles issues related to motivation and engagement rather than merely serving as a form of entertainment. Moreover, Vernon, as cited in Karatekin (2017), highlights that when young learners participate in gaming activities, they tend to concentrate on the learning task at hand, leading to natural improvements in their language abilities. This combination of learning and play within language education is acknowledged as a valuable concept. Additionally, the constructive collaboration of gamification with technology, as stated by Bicen & Kocakoyun (2018), highlights the potential of digital tools to enrich the learning journey for individuals.

There has been much debate in recent years over the impact of online gaming on second language learning. Many educators are introducing a variety of game components into their courses, as well as the usage of technology, to boost student commitment (Goethe, 2019; Siemon and Eckardt, 2017). Computer games for instructional purposes have simplified incorporating pleasurable features into language classrooms or virtual language learning settings (Peterson, 2013; Reinders, 2012; Reinhardt, 2017; Reinhardt and Sykes, 2012).

According to studies, learners think gamification influences learning (Hasegawa, Koshinon, Ban, 2015; Faisal, 2017; Medina and Hurtado, 2017; Prieto, 2014). Gamification may be used to develop language learning motivation for learners and boost grammar and vocabulary knowledge (Zuhriyyah, 2020).

### ***2.2.2. Gamification in the second language teaching and learning***

Gamification in language learning is a valuable strategy that uses diverse techniques to enrich language acquisition and support learners. Research indicates that gamification can have a significant impact on motivation, perception, and learning outcomes in second language education (Figuroa, 2015; Boudadi & Gutiérrez-Colón, 2020; Garland, 2015). Perry (2015) and Matsumoto (2016) have highlighted the significance of integrating gamification elements

to develop engaging and efficient language learning experiences. The positive effects of gamification on motivation and language acquisition have been highlighted by researchers such as Aydın (2014), Buckley and Doyle (2016), and Halloluwa et al. (2018).

Although gamification in language learning shows promise, ongoing research is exploring its benefits and applications in education. Herrera et al. (2018) recommends incorporating engaging gamified language exercises to improve learning outcomes. The utilization of language games is acknowledged as an effective approach to establish a conducive learning environment and enhance language acquisition. Despite the increasing interest in gamification, further research is needed to confirm its effectiveness in specific language contexts, like isiZulu FAL, as noted by Morthy and Abdul Aziz (2020). Overall, gamification is increasingly acknowledged as a contemporary and effective method in language education, providing opportunities for improved learning, collaboration, and sustained engagement.

### **2.3. What is Game-Based Learning (GBL)?**

Game-based learning involves the use of gaming principles in real-world scenarios to effectively engage users. Numerous studies, including those by Ataeifar et al. (2019), Klimova and Kacetl (2018), Lee et al. (2016), Lin and Lin (2019), Liu and Chu (2010), and Ma (2017) have highlighted the benefits of game-based learning in facilitating knowledge acquisition.

According to Designing Digitally (2017), game-based learning is a strategy employed by language learners to harness games for educational purposes both within and beyond the classroom. This approach motivates learners to set learning objectives, assess the value of game rewards, and improve problem-solving and critical thinking skills. Furthermore, game-based learning develops the creation of innovative learning experiences within games that can be transferred to learning beyond the gaming environment.

### **2.4. What is Kahoot!?**

Kahoot! is designed to provide learners with an engaging platform resembling a game (Johns, 2015; Medina and Hurtado, 2017). Kahoot! functions as a game or game application (Bicen & Kocakoyun, 2019). This platform operates as a game-based student response system (GSRS), transforming the traditional classroom into an interactive game show, with the educator as the host and the students as participants (Wang, 2015).

When used effectively, Kahoot! can support learners with problem-based learning (Wang and Lieberoth, 2016), metacognitive support, and other learning approaches (Plump and LaRosa, 2017). Kahoot! is an effective tool that may make learning significant, difficult, and interesting (Bicen & Kocakoyun, 2018; Medina & Hurtado, 2017).

Furthermore, Kahoot! is a simple assessment tool educators may use to create assessment games that track learners' continuing learning (Bicen & Kocakoyun, 2018; Ismail & Mohammad, 2017; Johns, 2015; Licorish et al., 2018). Kahoot! is a new generation of a digital game-based learner response system that motivates increasing learners' participation and inspiration and evaluating learners' comprehension of a learning session (Wang, Zhu, Saetre, 2016). According to Bicen and Kocakoyun (2018), Kahoot! is a simple e-learning application that may foster language acquisition and provide a dynamic learning environment for language learners.

#### ***2.4.1. Kahoot! use in education***

One collaborative learning tool that uses the concept of gamification is Kahoot!. Wang (2015) researched the impacts of playing Kahoot! daily in the classroom and how this could impact learners' attention, learning perceptions, and classroom dynamics. Using the online game Kahoot! is one-way educators can develop their learners' vocabulary. The results of this study indicate a positive view of Kahoot! by participants, with many recognizing its advantages in improving learning experiences and classroom involvement. Nonetheless, there exist differing opinions, with a minority expressing uncertainties or neutral stances regarding specific aspects of Kahoot!'s influence on isiZulu learning and classroom interactions. These findings emphasize the varied methods through which Kahoot! and constructivist strategies are employed to boost learning results, engagement, and language acquisition in isiZulu FAL classroom.

In general, Kahoot! is a fun and helpful tool. Many studies on Kahoot! have focused on the learning effects (Hsiu-Ting Hung, 2017; Iwamoto, Hargis, Taitano, & Vuong, 2017; Wang et al., 2016; Wichadee & Pattanapichet, 2018), how learners and educators perceive the game-based learning platform (Bicen & Kocakoyun, 2018; Chaiyo & Nokham, 2017; Plump & LaRosa, 2017; Wang, 2015), and on classroom dynamics (Cutri, Marim, Cordeiro, Gil, & Guerald, 2016; Licorish, Owen, Daniel, George, 2018; Wang and Lieberoth, 2016).

#### ***2.4.2. Using Kahoot! in language teaching and learning***

Many researchers have investigated Kahoot in various contexts since its introduction in 2013. Chiang (2020) explored Kahoot! in Taiwan's English First Language reading class. In Turkey, Bicen and Kocakoyun (2018) investigated learners' perceptions of the gamification method (Kahoot!). Licorish et al. (2018) investigated students' perceptions of Kahoot!'s impact on teaching and learning in New Zealand. Furthermore, research has been conducted on the application of Kahoot! in the teaching of several languages, including German (Chumairok & Ardiyani, 2020) and Chinese (Liu & Wang, 2017), as well as other language skills, such as vocabulary (Hadijah, Pratolo & Rondiyah, 2020) and pronunciation (Yürük, 2020).

Plump and LaRosa (2017) discovered that Kahoot! was practical for educators to use in their classrooms and needed no prior training to use. Another study by Pede (2017) found that using Kahoot! developed learners' attention and behaviour, and that Kahoot! games were user-friendly and easy to use. Findings showed that learners use Kahoot! to contribute in class, learn their target language effectively and enjoy learning a second language. The effect of Kahoot! use on learners' focus, engagement, enjoyment, perceived learning, motivation, and satisfaction was investigated by Chaiyo and Nokham (2017). The outcomes of this study demonstrate that using this software in the classroom provides many benefits to learners.

Early studies conducted by Wang et al. (2016), Wang & Lieberoth (2016), Bicen & Kocakoyun (2018), Licorish et al. (2018), indicate that using Kahoot! to boost classroom learning is more successful than traditional media. Iaremenko (2017) researched the role of Kahoot! in encouraging English language learners. The findings showed that employing Kahoot! in the classroom is successful, enjoyable, and engaging. The results of Iaremenko (2017) study indicated that the participants gained relevant knowledge while playing the game. However, some research has focused on using Kahoot! in the classroom and found the game-based learning platform is an excellent approach to engaging learners in class. Medina and Hurtado (2017) studied the impact of employing Kahoot! in language schools. Their research revealed that using Kahoot! as a digital tool for learning vocabulary in a language classroom significantly increased student engagement, interaction, and motivation and improved the acquisition of vocabulary for exams. Students enjoyed playing Kahoot! and found it easy to use, indicating a positive reception of this gamified learning approach (Medina and Hurtado, 2017).

Bicen and Kocakoyun (2018) advocate that Kahoot! is a popular e-learning tool that can be easily used to foster language learning and create a positive learning environment for language learners. There are a growing number of studies on the usefulness of using Kahoot! as an instructional tool for language learners. Additionally, Bicen and Kocakoyun (2018) investigated learners' perceptions of using Kahoot!, and their findings have shown that Kahoot! applications can be used effectively in learning by playing games in the classroom, which is a method that allows the learner to gain passion and dedication. A study by Yürük (2019) assessed how Kahoot! can be used as an assessment tool in foreign language courses and how learners understand the application as complementary information.

Meanwhile, Ares, Dellos and Wang (2018a) conducted a study on the effect of Kahoot! as a gamification tool for studying teaching methods. Results from this study proved that using Kahoot! in the classroom often led to learner learning developments, which were more common among learners with higher Kahoot! scores. In the language classroom, these Kahoot! features and the flexibility of Kahoot! allow educators to design unique lessons that are fun and effective and track learners' improvement through quizzes and surveys.

Kahoot! allows educators to offer near-instant feedback without disrupting learners' involvement in the activity. This is important for language learning because learners can continuously complete and assess assignments while receiving immediate feedback. Kahoot! is an excellent choice for teaching learners of all grades in any subject, especially language subjects. Learners can easily access their phones or tablets when completing a Kahoot! activity. These e-learning tools create a positive classroom atmosphere, increase energy, and make learning fun (Drigas and Charami, 2014). According to Wang and Tahir (2020), Kahoot! is the most popular gamification app among learners compared to other gamification apps such as Socrative or Plickers.

#### ***2.4.3. Kahoot!'s advantages and disadvantages***

By enhancing dedication, excitement, enjoyment, and focus, Kahoot! strives to improve learning performance and classroom dynamics. Boredom in computer-based learning environments can lead to subpar learning outcomes and negative behaviour (Baker, D'Mello, Rodrigo, and Graesser, 2010). Studies indicate that gamified software like Kahoot! can

improve learning results (Deterding, Khaled, Nacke, and Dixon, 2011). Zarzycka-Piskorz (2016) discusses how Kahoot! positively impacts learner engagement in grammar learning during English classes.

Iwamoto, Hargis, Taitano, and Vuong (2017) characterize Kahoot! as a participatory environment that emphasizes significant academic progress. Hazwani et al. (2018) note Kahoot!'s benefits in language skill development and student participation. Budiati (2017) explains how Kahoot! enhances English language skills, making learning more enjoyable and efficient. Medina and Hurtado (2017) highlight the positive effects of using Kahoot! in language classes, improving motivation and vocabulary.

Michos (2017) found that learners believe gamification, like Kahoot!, boosts enthusiasm. Kahoot! enhances learning and classroom dynamics by fostering participation, motivation, fun, and focus. It can be used for formative assessment or as an alternative to traditional activities (Ismail & Mohammad, 2017). Studies show significant improvements in learner quality of learning, engagement, inspiration, and overall experience with Kahoot! (Hazwani, Afifah, Azura, and Adlina, 2018; Huseyin and Senay, 2018; Sherlock, Owen, Daniel, and George 2018; Thuy and Takashi, 2019).

Kahoot! is versatile and encourages pre-class study (Huseyin and Senay, 2018; Pede, 2017; Wang, 2015). Learners find the reward system in Kahoot! motivating (Huseyin and Senay, 2018; Raj and Veerappan, 2019; Thuy and Takashi, 2019), leading to increased review and revision post-class. Combining gamification with blended learning aids in lesson comprehension (Huseyin and Senay, 2018). Kahoot! is not only engaging but also entertaining (Ismail and Mohammad, 2017; Kim and Lee, 2015; Pede, 2017; Raj and Veerappan, 2019), appealing to learners of all ages (Ai Lin & Manjet Kaur, 2018).

Research shows that Kahoot! motivates learners, enhances outcomes, and serves as an effective teaching and assessment tool in language classes (Michos, 2017). Kahoot! fosters an enjoyable learning environment, increasing learner activity levels and creating dynamic classrooms (Licorish et al., 2018). The positive energy from Kahoot! can boost motivation and activity relevance (Bicen and Kocakoyun, 2018). Kahoot! excels in formative assessments with high-quality visuals and videos (Felszeghy et al., 2019).

Smith and Johnson (2022) found that Kahoot! encourages learner participation and enriches language learning experiences. It is also effective for live virtual remote learning. However, challenges exist for both learners and educators when using Kahoot!, such as wear-out effects,

discouragement from low scores, and distractions from the competitive aspect. Educators must provide adequate feedback and support to overcome these challenges and maximize Kahoot!'s benefits.

#### ***2.4.4. Learners' engagement and motivation in Kahoot!***

Kahoot! creates an active learning environment by motivating learners to learn, work together, and communicate in the virtual classroom by replacing traditional textbooks and notes (Graham, 2015). Kahoot!'s interactivity increases learner engagement when physically seated in a traditional classroom. Playing Kahoot! in isiZulu FAL language classes can improve and develop positive attitudes, increase participants' motivation levels, and promote learners' perceptions and expectations about isiZulu FAL language classes. Kahoot! promotes healthy competition, an enjoyable learning environment, and allows you to actively engage with your learners while learning the target language they need. Chaiyo and Nokham (2017) showed important outcomes. These outcomes showed the effectiveness of using technology-enhanced tools like Kahoot! to improve engagement, learning outcomes, and overall classroom dynamics in the context of teaching English as a Foreign Language (EFL) in Thailand.

A study by Geoksun & Gursoy (2019) emphasised that Kahoot! had a greater effect on learner engagement than quizzes. According to some researchers like Bicen & Kocakoyun (2018) and Ismail & Ibrahim (2018), many learners acknowledged that Kahoot! enhanced their self-motivation and fun in the classroom. Other studies by Licorish et al. (2018) and Zarzycka (2016) found that Kahoot! had beneficial effects on learner engagement, expectations, performance, and learning experiences. Some studies have proved that Kahoot!'s usability and attractive user interface and music may attract learners' interest (Plump & LaRosa, 2017).

According to Iwamoto et al. (2017), Kahoot! might help students prepare for exams. Another study found that Kahoot! improved learners' enthusiasm in engaging in learning, and they told their peers how much fun using it was (Budiati, 2017). When utilizing Kahoot!, students felt more motivated, confident, calm, and safe (Tsymbal, 2018). Additionally, when learners felt more at ease replying anonymously, the classroom became friendlier and more entertaining (Cutri et al., 2016).

Moreover, Kahoot! has been shown to improve class commitment (Parra-Santos, Molina-Jorda, Casanova-Pastor, & Maiorano Lauria, 2018). Team-based Kahoot! enables learner knowledge sharing (Atherton, 2018), and well-designed Kahoot! develops learner commitment, motivation, and learning (Smith & Brauer, 2018). Another reason for learners' commitment is that Kahoot! improves their sensory and cognitive curiosity (Baydas & Cicek, 2019; Bicen & Kocakoyun, 2018). Nonetheless, several academics expressed concern on various elements that negatively influence learners' interest. According to Smith and Brauer (2018), poorly constructed questions can negatively influence learners' commitment.

Research has been conducted to explore the application of Kahoot! in language learning (Al-Manar, 2019; Mansur and Fadhilawati, 2019; Pede and Accardo, 2017). The findings of these studies have revealed the influence of learners' behavior on enhancing their understanding. Incorporating Kahoot! in language education enables teachers to create interactive quizzes with multiple-choice questions presented in a game-like format to assess learners' progress (Dewi, 2018).

## **2.5. The use of technology in teaching and learning**

Technology integration in language teaching was inevitable to assist learners in preserving their academic motivation. According to Harmer et al. (2007) and Gençler (2015), to be effective in language learning, instructors must inspire learners to find suitable activities by using computer technology. Technology is one of the most important aspects of advanced language teaching. Technology-based learning may be improved in the educational setting to boost learner commitment and focus on the classroom.

The definition of technology inclusion, according to Hennessy, Ruthven, and Brindley (2005) and Pourhosein Gilakjani (2017), is how educators utilize technology to carry out routine duties more successfully and how this practice can transform the nature of these tasks. Technology offers language learners endless resources, as stated by Bull and Ma (2001). Mouza (2008) and Sabzian, Pourhosein Gilakjani & Soduri (2013) argue that one of the consequences of using technology in language classrooms is increased teamwork between educators and learners.

Technology has played an important role in education. Several scholars have defined technology. According to research, computers, tablets, online teaching, and learning applications can advance learners' engagement and active participation in classrooms, as well

as assist educators in more meaningful and effective teaching (Bransford, Brown, & Cocking, 2007; Cox & Rogers, 2005; Chun, Kern, & Smith, 2016; Kim & Reeves, 2007; Koile & Singer, 2006).

The present generation, which relies on technology and computer games, employs various communication and learning approaches (Bekebrede et al., 2011). Baytak, Tarman, and Ayas (2011) investigated the use of technology in language learning. According to Pourhosein Gilakjani (2013), technology can dramatically modify language instruction methodologies. Researchers Warschauer (2000) and Parvin and Salam (2015) found that using technology may expand their exposure to language in a relevant setting and improve their understanding. Technology is increasingly linked to education to improve learners' motivation and engagement with learning content (Licorish, Owen, Daniel, and George, 2018; Premaratne, 2017; Wang and Lieberoth, 2016; Zarzycka-Piskorz, 2016). Technology is becoming one of the most significant components of language learning. Various technological tools and software are created to develop the language teaching-learning process.

There are two ways to think about technology for language learning: technology as supplying teaching resources and technology as delivering created learning experiences. Technology is now a crucial aspect of the learning process both in and out of the classroom. Every language class nowadays use some technology. Technology has encouraged and accelerated language acquisition. The educational system is no exception, with the next generation becoming the first to welcome technology in the language classroom fully. Because technology frequently degrades learners' interpersonal skills, it is vital to highlight the creation of applications that encourage cooperation and active participation in classroom topics (Bickle and Rucker, 2018).

Recent technological advancements have led to the use of gamification in education. These gamified technologies are designed to improve learners' learning abilities. Gamified technologies are used in foreign language training and learning (Hasegawa, Koshinon, and Ban, 2015). According to Figueroa-Flores (2015), technology is a driving force of change in second-grade teaching and learning. Zhou and Wei (2018) maintain that gamification in education is any learning activity incorporating technology aids or tools to promote efficiency, excitement, and flexibility in learning techniques.

Technology has become a crucial aspect of the learning process both in and out of the classroom. Every language lesson makes use of technology. Language learning has been enhanced and advanced by technology. Technology enables educators to adjust classroom

activities, thus improving language acquisition. In this study, the researcher defined the terms technology and technology integration, explained the use of technology in the language classroom, reviewed previous studies on using technologies to improve language learning skills, and made recommendations for better use of these technologies, which support learners in developing their learning skills.

According to Ybarra and Green (2003), technology offers learners a good linguistic experience when learning a language. Michos (2017, p. 512) highlights the benefits and motivations for gamification in second-language instruction. According to Solanki and Shyamlee (2012) and Pourhosein Gilakjani (2017), technology has changed the educational method. The use of technology in the classroom not only improves learners' inspiration but also their concentration (Hadijah et al., 2020).

The studies above explain why using technology in language classrooms significantly develops learning. One such technological software that has proven invaluable in the language classroom is Kahoot! Language learning in conventional settings may also benefit from technological advancements. For example, students may record themselves speaking a foreign language and discuss criticism and critiques in the classroom. Learners can utilize technology in class to collaborate via text chat rather than speaking since it allows them to focus and analyze their performance. Technology may be a valuable element of an overall language-learning approach when it solves issues imaginatively and enhances language-learning processes. Artificial intelligence has transformed traditional schooling into a contemporary manner of learning (Di Vaio et al., 2020).

Technology, according to Abrams and Walsh (2014), Yuruk (2019), Chan (2020), and Resmayani and Putra (2020), will support learners in their language learning. Technology offers learners a wide range of genuine resources and encourages them to learn the language. However, the change to online mode has created several concerns regarding educational quality (Sahu, 2020). The number of information and communication technologies used in language schools to attract digital native pupils has increased dramatically as technology has advanced. The lack of technology to support the blended learning perspective and the use of several languages influencing the content utilized in the technologies are key difficulties affecting learning in the country (Jantjies & Joy, 2015).

All language learners use tools, conduct activities, or self-regulate their behaviours to improve the success or efficiency of their language acquisition or usage (Cohen et al., 2011; O'Malley

and Chamot, 1990; Oxford, 1990). According to Ybarra and Green (2003), technology enables successful language practice in second language learning. Furthermore, the common denominator between gamification and language acquisition is technology.

Despite the availability of educational games that may be used to promote language learning, the number of research dealing with the impact of gamification on language learning is limited in the literature. The current study intends to encourage active teaching and learning in isiZulu FAL by supporting learners in acquiring practical technical skills. However, no research has been undertaken on Kahoot! with isiZulu's FAL teaching and learning. Exploring the use of Kahoot! in isiZulu FAL teaching and learning is an uncharted research area. The researcher is unaware of any published studies, including Kahoot! at the secondary level.

This study also aims to integrate technology within the isiZulu FAL teaching to extend learners' perceptions, integrate language skills, and create an independent learning environment for learners. The rationale for conducting this research is from the home-based learning period from the start of the movement control order (MCO) because of COVID-19 in 2020. The study is additionally motivated by previous studies using Kahoot! in English and Spanish language acquisition. The use of Kahoot! in isiZulu FAL teaching and learning is non-existent. Therefore, this study contributes to the existing literature on the integration of technology, specifically Kahoot! in isiZulu teaching and learning.

## **2.6. Conclusion**

In conclusion, this chapter emphasized how gamification and game-based learning have transformed educational practices by leveraging game elements to boost learner motivation, engagement, and learning outcomes, particularly in language education. Game-based learning tools like Kahoot! are highlighted as valuable assets for creating interactive and effective learning environments that cater to diverse learner needs. The chapter stresses the importance of strategic integration of gamification in educational settings to enhance learning performance and engagement, backed by research findings on the benefits of gamified language learning experiences.

## CHAPTER THREE: THEORETICAL FRAMEWORK

### 3.1. Introduction

The study aims to investigate the application of gamification in the context of isiZulu FAL education for Grade 4, 5, and 6 learners at a South African school. Two prominent educational theories are discussed to provide a comprehensive theoretical foundation for the study: Cognitive Theory and Constructivist Theory. These theories offer valuable perceptions into how gamification can improve language learning experiences for learners in this specific cultural and linguistic context.

The cognitive theory, associated with cognitive psychology, emphasizes the relevance of mental processes in learning and comprehension. It implies that learning concerns information acquisition, organization, and usage via cognitive processes such as attention, memory, and problem-solving. In the context of gamification and language learning, Cognitive Theory emphasizes the potential benefits of introducing gamified aspects that boost learners' cognitive processes, facilitating more effective language acquisition.

Cognitive load theory, a subcomponent of Cognitive Theory, recognises that learners have limited cognitive resources, and instructional design should seek to control cognitive load to develop learning (Sweller, 1988). When designing gamified language learning experiences for isiZulu FAL learners, it is significant to reflect on how the game elements, such as challenges, rewards, and interactions, affect learners' cognitive load and attention allocation.

Constructivist Theory, based on the work of theorists such as Jean Piaget and Lev Vygotsky, highlights the active role of learners in expanding their understanding of knowledge via relationships with their surroundings. This idea emphasizes the importance of experiences, social relationships, and meaningful activities in knowledge development. When applying constructivist principles to gamified language learning, the emphasis is on actively developing chances for learners to engage with isiZulu language content and culture.

Social Constructivism, an extension of Constructivist Theory, highlights the significant of social interactions and collaboration in learning (Vygotsky, 1978). When combining

gamification, educators can design activities that advance learners to work together, communicate, and resolve language-related challenges. This approach affiliates with the collective and collaborative nature of isiZulu culture and promotes an understanding of the language through shared experiences.

The research aims to present a solid theoretical framework for exploring gamification in isiZulu FAL education by grounding the study in Cognitive and Constructivist Theories. Applying these theories permits a holistic approach that considers cognitive processes and socio-cultural factors, improving the potential effectiveness of gamified language learning experiences for Grade 4, 5, and 6 learners in the South African school context.

### **3.2. Constructivism Theory**

Constructivism, as a learning theory, emphasizes that individuals create their understanding through interaction and reflection (Smith, 2005). Colburn (2000) defines constructivism as both a philosophical stance and a learning paradigm emphasizing active reflection and mental innovation. This approach is introduced by theorists like Dewey (1916), Piaget (1972), Vygotsky (1978), and Bruner (1990), highlighting the active production of knowledge based on learners' prior experiences. Piaget's developmental psychology emphasizes the role of play in children's learning, relevant for continuous learning in both children and adults (Piaget, 1962). Thomas and Brown (2011) argue that play fosters inquiry and problem-solving skills, enabling learners to accumulate knowledge applicable to future challenges.

Constructivism posits that learners develop their understanding through experience and reflection. Duffy, Lowyck, and Jonassen (2012) stress the importance of interaction and diverse data sources in knowledge construction. This approach fosters a comprehensive understanding of environmental contexts by integrating information from various perspectives. Implementing gamification in e-learning requires a constructivist approach informed by diverse research findings. It involves strategically applying theoretical insights to promote desired behaviours effectively. Recognizing the importance of language comprehension within the theoretical framework becomes vital in ensuring gamification's efficacy. Constructivism provides a framework for understanding how individuals learn and emphasizes the significance of direct engagement with learning materials. It promotes dynamic, interactive learning environments that facilitate active knowledge construction.

In this study, the constructivist paradigm informs the use of gaming technology (Kahoot!) to enhance isiZulu FAL learning. By allowing learners to actively engage with the material and connect old and new information, constructivism serves as an effective theoretical lens for understanding and optimizing learning outcomes in this context.

In educational practice, constructivism emphasizes learner-centred, action-oriented approaches, prioritizing linguistic and intercultural awareness (Smith, 2007). It promotes content-rich, interactive learning environments that foster active engagement and knowledge application (Jonassen et al., 1999). By focusing on learners' active participation and cognitive processes, constructivism highlights the significance of connecting new information with existing knowledge (Brooks & Brooks, 1993). Learners construct meaning through accommodation and assimilation, continuously refining their mental models based on new experiences (Vygotsky, 1978).

### **3.3. Cognitivism Theory**

According to Piaget (1970), in education, cognitive-developmental theory refers to enhancing learners' creativity, information processing, and problem-solving abilities through computer-assisted instruction, focusing on unobservable mental processes employed by learners. It explores individuals' cognitive processes, emphasizing that people can receive, assess, and apply data at varying cognitive development levels. Each learner, according to cognitive theorists, possesses a cognitive framework where new knowledge is assimilated, viewing language learning as a meaningful process and verifying experiential language learning. Second language learning is conceptualized as a conscious, reasoned thinking process involving various learning approaches.

The cognitive theory, which prioritizes learning techniques over observable behaviour, is appropriate for the current study's context of the isiZulu FAL classroom, where learners are seen as information processors. Learning new ideas within this context involves linking them to existing knowledge and facilitating recall during assessments such as Kahoot! This theory delves into the internal development of the isiZulu FAL language learners, recognizing their application of multiple modes for processing information. Each learner uses unique learning styles to process information, with the cognitive theory understanding second language learning as a conscious cognitive process.

Examining gamification as an effective teaching and learning tool, the cognitive theory serves as a fitting framework for a case study applying Kahoot! to motivate young isiZulu FAL learners. Grounded in understanding information processing and retention, this theory offers valuable insights into how gamification can engage and inspire learners by leveraging cognitive processes. By leveraging principles like attention, memory, and problem-solving, gamified approaches foster an immersive learning environment, aligning with the theory's emphasis on active participation and reinforcement, thus enhancing language acquisition.

Piaget's cognitive theory suggests that language development is just one facet of overall intellectual growth (Piaget, 1953). Piaget believed that children's cognitive and language skills are closely intertwined, with cognitive development occurring in stages that lead to the acquisition of language skills as children grow and mature. According to cognitive theory, characteristics acquired by the isiZulu FAL learners result from intellectual processes rather than observable behaviour. Learners' active participation in the learning process is highlighted, with a focus on understanding material concepts during isiZulu FAL lessons. According to Smith and Johnson (2019), challenges arise in representing detailed relationships between cognitive behaviours and language characteristics, particularly in early language acquisition stages. Learning processes encompass observation, classification, generalization, and problem-solving, fostering learners' knowledge, understanding and development.

Cognitive theory involves information processing, which precedes storage in long-term memory, highlighting the significance of learner individuality and linguistic suggestion capacity. This theory underscores the process that takes place between environmental inputs and learner responses, focusing on how learners construct representations to organize experiences and identify patterns (Smith, 2022).

Cognitivism, as a learning theory, has gained significant prominence in recent years, leading to a notable shift towards adaptive online learning and teaching (Smith, 2022). This theory, rooted in cognitive acquisition theory, plays a crucial role in helping learners improve their language proficiency and comprehension skills (Jones, 2021). By engaging learners in tasks that mirror consistent behaviour patterns, cognitive theory places a strong emphasis on comprehending conscious cognition processes (Brown, 2023).

In the context of this study, cognitive theory addresses the development of the isiZulu FAL language learners, who use various modes to process information, with each learner employing unique learning styles. Educators play a crucial role in understanding learners' diverse experiences, determining effective methods, and organizing information to provide feedback and enhance learning outcomes efficiently. Cognitive learning theory asserts that learning is contingent upon cognition.

### **3.4. Conclusion**

This chapter has critically examined two language acquisition theories and their positive and negative aspects. Still, no conclusive explanation of language acquisition in children has been established, which could be a learning experience and complex learning.

Cognitive theory suits current research because learners are seen as information processors during the isiZulu FAL classroom. Learning new concepts within the isiZulu FAL classroom is possible by linking them to existing knowledge and saving them for later retrieval when learners are assessed with Kahoot! Cognitive learning theory is key to understanding the isiZulu FAL learners' events and how their mind processes the information taught in the isiZulu classes.

This study adopts two learning theories: cognitive theory and constructivist theory. Despite their similarities, each theory possesses unique characteristics. According to cognitive theory, humans learn and make judgments based on what is the most reasonable thing to learn. On the other hand, constructivism believes that individuals interpret information for themselves, including what they have acquired from other learners. Constructivism asserts that learning integrates logic and humanistic methods, whereas cognitive theory asserts that learning is a logical process devoid of emotion or humanistic elements.

## **CHAPTER FOUR: METHODOLOGY**

### **4.1. Introduction**

This chapter is explorative, wherein gamification within the teaching and learning of isiZulu FAL is examined. Specifically, the study focuses on a case study of using Kahoot! to motivate young learners. Hence, a qualitative research method has been implemented in this study whereby the researcher embarks on a captivating journey to discover the depths of the chosen phenomenon, seeking rich perceptions and understandings that qualitative approaches often overlook.

Within this chapter, the researcher outlines the design and implementation of the study, as well as the rationale behind the chosen methodology, in section 4.2. By opting for a qualitative approach, the researcher embraces the complexity and richness of learners' perspectives, acknowledging the multifaceted nature of the research questions. With a focus on capturing the participants' meanings and interpretations, the aim is to create a holistic understanding of the phenomenon under investigation.

The key objectives of this chapter are twofold. First, it explains the research setting of the study in section 4.3., the selection of participants and sampling is included in section 4.4., provides a comprehensive overview of the research design in section 4.5., instruments used in the study are provided in section 4.6., data collection methods in section 4.7., and explaining these aspects, the researcher ensures the transparency and rigour of the research process, ultimately enhancing the trustworthiness and validity of the findings.

### **4.2. Research Method**

The researcher adopts a mixed-method approach to address the three stated research questions. Qualitative content inquiry aims to collect data in qualitative research, which might come from observations, interviews, and group discussions (Leavy, 2017). Using an explorative case study, the researcher aims to unravel complex perceptions of using Kahoot! to encourage young learners. Kahoot! activities that consist of true or false and multiple-choice question types were designed by the researcher. Figures 1 and 2 below are examples of Kahoot! activities, using the question types mentioned above. The Kahoot! software also provides a report on learners' performance. As evident in Figure 3 below, learners use nicknames to avoid real identification.

Their final scores are archived as well as the percentages of their correct answers are provided on the Kahoot! software.

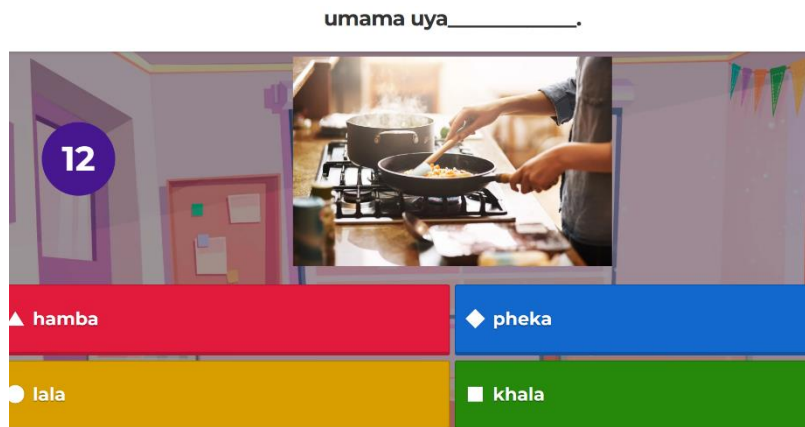


Figure 1. An example of a multiple-choice question type Kahoot! activity

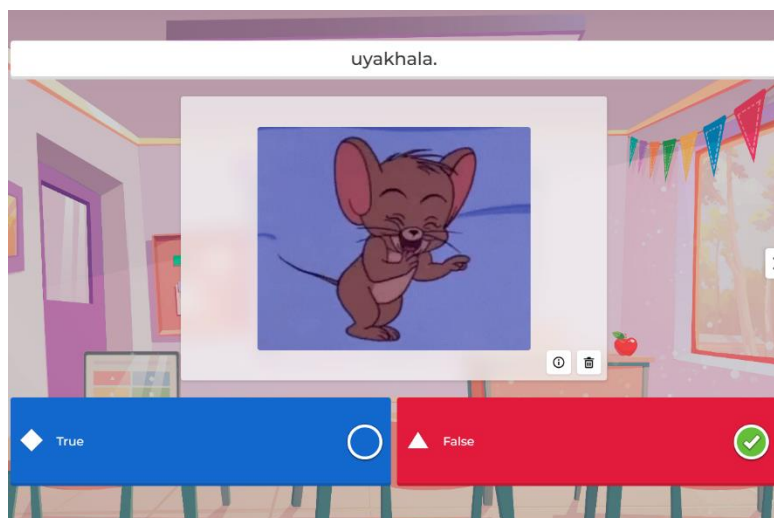


Figure 2. An example of a true and false question type Kahoot! activity

Nickname	Rank	Correct answers	Unanswered	Final score
Tumi queen	1	80%	—	3644
ndalo peva	2	80%	—	3614
Tumelo	3	80%	—	3382
Ora	4	60%	—	2671
kutloano m	5	60%	—	2437
Lubanzi seppapi	6	40%	—	1732
Owethu Mabe	7	40%	—	1560
Iuphili	8	20%	—	942
Sibusiso Siband	9	20%	—	900

Figure 3. An example of a report extracted from a Kahoot! activity

For the qualitative design, learners' perspectives on Kahoot! in their isiZulu FAL learning were collected through a Google form survey. Furthermore, insights from the questionnaire provide additional quantitative data on learners' views of using Kahoot in the learning process. The quantitative data was gathered from a questionnaire on learners' experiences and perceptions of using Kahoot in the isiZulu FAL classroom for learning.

The information gathered has to be relevant, precise, and significant. This study's data was acquired using a questionnaire and observation of the participants. The researcher, who taught various isiZulu FAL classes, collected the data sequentially. Observations were conducted throughout the isiZulu class. The researcher used Kahoot! learner reports and a questionnaire (including open-ended and closed-ended questions) to assess the data. Diverse participants' study programs demonstrated the research data's validity. A learners' questionnaire was used to examine the data from this study.

### **4.3. Research Setting**

The selected private primary school in North Johannesburg provides an ideal setting for conducting this research due to its exclusive characteristics and the alignment of its language curriculum with the study's objectives. The decision to focus on a school offering isiZulu as FAL is of particular significance, as it permits an in-depth investigation of how technology, specifically the Kahoot! platform can be combined effectively into language learning in a multilingual and culturally various educational context.

The existing technological infrastructure within the chosen school offers a solid foundation for implementing the Kahoot! platform. This infrastructure encompasses the accessibility of devices such as computers or tablets, internet connectivity, and familiarity with digital tools for learners. The study aims to combine the Kahoot! platform effortlessly into the language learning process, thereby evaluating its effect on learners' language acquisition, engagement, and overall learning outcomes by leveraging this technological readiness. Furthermore, selecting a specific primary school as the research site allows for a more focused and manageable scope, enabling the researcher to check and assess the implementation process closely. This approach increases the study's validity and provides valuable perceptions that can be applied to other educational settings.

The research conducted within this context will contribute to the academic understanding of technology-assisted language learning and provide practical insights for educators and policymakers striving to expand language education in diverse and digitally connected classrooms.

#### **4.4. Research Sampling**

Purposeful sampling is a deliberate qualitative research approach where participants are chosen based on characteristics significant to the study's objectives (Ray, 2012). This method aims to gain deep perceptions of research questions by ensuring that participants can effectively contribute to exploring and comprehending the research topic. By gathering a range of diverse viewpoints and experiences, this approach assists a thorough understanding of the subject being investigated. For instance, in a study focusing on isiZulu FAL learning, purposeful sampling was used to choose participants from different classrooms and grade levels, aligning with the study's objectives. This method maximizes the relevance and breadth of the gathered information.

The researcher used a purposeful sampling approach to select participants, deliberately considering specific criteria. These criteria stipulated that participants must be learners from grades 4 to 6 in isiZulu FAL classes. Nine learners were chosen to participate in this study based on these criteria. This improves the understanding of learning isiZulu FAL through electronic devices. The selection of nine learners (three girls and two boys from Grade 4, one boy from Grade 5, and two boys and one girl from Grade 6) allowed a massive exploration of perspectives on educational tools such as Kahoot.

A research sample reflects the population from which a sample is collected (Sekaran and Bougie, 2013). The researcher was previously aware of the learner's experiences using Kahoot! for learning isiZulu FAL. Learners from isiZulu FAL grades 4, 5, and 6 were particularly chosen for this study.

#### **4.5. Research Design**

Research design reveals how a researcher understands the world and connects rules of investigation to define the research methodology. The researcher applied an interpretive approach to explore and explain the primary schools' practice of incorporating gamification in

the academic education of isiZulu FAL learners. The interpretive approach was used because the researcher believes individuals construct meaning to their environment by experiencing the world from the inside. Therefore, this study observed different interpretations of reality among isiZulu FAL learners.

The study will implement a qualitative case study design to explore using Kahoot! as a gamification tool to motivate young learners in the teaching and learning isiZulu FAL. A case study approach will provide an in-depth understanding of the phenomenon within a specific context. The chosen qualitative research design allows an in-depth investigation of participants' perceptions and experiences. Qualitative research is well-suited to the interpretive paradigm, which seeks to understand social phenomena from the participants' subjective viewpoints. This approach facilitates the exploration of complex meanings, explanations, and understandings within the context of the study. The interpretive paradigm allows for a deep exploration and understanding of participants' experiences, perspectives, and meanings related to using Kahoot! in language learning. By employing this qualitative research design, the study aims to provide valuable perceptions into the effect of Kahoot! as a gamification tool in motivating young learners in the context of isiZulu FAL education. The outcomes can inform language educators and policymakers about the potential assistance and challenges of incorporating gamification into the language learning curriculum.

The research design for this qualitative study is grounded in the interpretive paradigm. This paradigm acknowledges that individuals construct their world understanding based on their experiences and perceptions. It seeks to explore and interpret participants' meanings, beliefs, and behaviours in their natural context. The interpretive paradigm values the subjectivity of human experiences and focuses on understanding the meanings individuals assign to these experiences. It includes the idea that knowledge is socially constructed and that researchers must immerse themselves in the participants' world to comprehend the phenomenon under study. The researcher acknowledges their biases and beliefs and strives to be reflexive throughout the research process. The interpretive approach, also known as the interpretive or qualitative approach, is a research methodology that focuses on understanding and interpreting human behaviour and social phenomena. It is often used in the social sciences and humanities to explore individuals' or groups' subjective meanings, experiences, and perspectives. The interpretive approach is rooted in the belief that reality is socially constructed and that individuals and groups actively interpret and give meaning to their experiences. Researchers

will use this approach to uncover people's multiple and diverse interpretations about a particular phenomenon, aiming to understand the social and cultural context in which those interpretations are formed.

#### **4.6. Instrument**

With each conducted questionnaire and observation, the researcher embarks on an incremental journey toward unravelling the study's complex details. The methodology employed is rooted in qualitative research, which assists the researcher to delve deep into the perceptions of the subject matter. In this specific case, the focus is on understanding the unique experiences of isiZulu FAL learners as they engage with and learn the language through the innovative gamification method using the platform Kahoot!

##### ***4.6.1. Observations***

Class observation is a valuable data collection instrument used in educational research and evaluation to gather information about teaching practices, learner behaviour, and the learning environment within a classroom setting. It includes systematically observing and documenting various classroom activities to understand instructional approaches, learner engagement, and overall classroom dynamics. During observation, the researcher may represent an external or internal participant whose observations are intentionally free-flowing and unstructured to shift focus as significant events are observed (Leedy and Ormrod, 2005). Although this data collection approach offers flexibility, potential researcher considerations include changing focus with the correct lenses and remaining impartial during observation (Leedy and Ormrod, 2005).

Observing how participants perceive the phenomena of teaching reading comprehension is critical. It makes evaluating data from diverse techniques easier by providing a contextual backdrop. According to Cohen et al. (2011), observation systematically records behavioral patterns. It provides an edge by obtaining information that interviewees may overlook. Structured observation is used in the study to directly examine learners' perspectives when using Kahoot! in the isiZulu FAL classroom, learner insights when not using Kahoot! in the isiZulu FAL classroom and the efficacy of Kahoot! in the isiZulu FAL classroom. An observation schedule was used to measure educators' understanding of instructional

approaches. The program was organized around three stages of reading instruction: introduction, sustenance, and reinforcement. Learners were watched and questioned during classroom teaching as part of the procedure.

This study uses class observation as a data collection instrument to explore the effectiveness of gamification in the teaching and learning of isiZulu FAL. Specifically, the study investigates Kahoot!, a popular educational gamification platform, to motivate young learners in the context of isiZulu language teaching. The study employs a qualitative research design, applying class observation as the primary data collection instrument. The researcher observed multiple classroom sessions where Kahoot! is integrated into isiZulu language lessons. The observations were conducted in real-time, allowing for the capture of real interactions between learners and the gamified learning environment. Class observation involves systematically collecting data by directly observing classroom activities and interactions.

The researchers familiarised themselves with the curriculum, gamification concepts, and Kahoot! as a teaching tool. The researcher also shows a clear observation focus, recognizing specific aspects of gamification and learner motivation to be observed. The researcher observed the selected isiZulu FAL classroom(s) and observed the teaching and learning activities during Kahoot! sessions. The researcher can present constructive feedback regarding gamification approaches by observing the classroom activities. This feedback can support professional development and improve instructional practices.

#### ***4.6.2. Questionnaire***

Questionnaires are research tools used to collect data in which respondents answer predetermined questions using narrowly specified alternatives (Sekaran and Bougie, 2013). Questionnaires were distributed to the young learners to assess their impressions of utilizing Kahoot! as a gamified learning tool. The questionnaire questions were developed to examine their motivation levels, engagement, enjoyment, and perceived learning results related to the gamification strategy. Questionnaires were emailed to learners and their parents using a Google form questionnaire, and the questionnaire was properly described.

The questionnaire intended to collect qualitative data for a study focused on investigating the use of gamification, specifically Kahoot!, to motivate young learners in the teaching and

learning of isiZulu FAL. The study seeks to identify the effect of gamification on learner engagement, language acquisition, and overall motivation. The study used a structured questionnaire as its research instrument to gather quantitative data, which was non-numeric (structured data). The questionnaire consisted of different sections, including an introduction to explain the study's nature, a demographics section, and sections related to the study's objectives. Demographic data was measured using a nominal scale, while the Likert agreement scale had a range of 1 to 5 (from "strongly disagree" to "strongly agree") of the nine learners toward Kahoot! effectiveness was used for other sections. Various methods were utilized to enhance the validity and reliability of the questionnaire. These included using items from prior research studies, having the study's supervisor review the questionnaire for relevance, and statistically assessing the internal consistency of the questionnaire items to guarantee reliability.

By implementing these methodological approaches, the study aimed to rigorously explore the influence of gamification, particularly using Kahoot!, on motivating young learners in the context of isiZulu FAL education. The structured questionnaire was a robust tool for collecting quantitative, non-numeric data, offering valuable perceptions of learner engagement, language acquisition, and motivation. Through careful design and validation, the questionnaire contributes to the overall validity and reliability of the study's findings, presenting a comprehensive understanding of the role of gamification in improving the teaching and learning experience.

#### **4.7. Data collection**

Qualitative and quantitative data may be collected and evaluated in a research study to offer an in-depth knowledge of the phenomena under examination (Sekaran & Bougie, 2013). Data can be obtained using instruments roughly classified as observational, self-reporting, or documentary sources (Mouton, 2001). Questionnaires and observations can be used to gather qualitative data. In keeping with the qualitative methods approach, the research instruments employed in this study included a series of questionnaires and observation of partnerships on the gamified e-learning platform. The general strategy for data collecting bears some, as did the approaches used by O'Donovan et al. (2013), Todor and Pitica (2013), and Siemon and Eckardt (2017).

Class observation is used as the major data collecting tool in this project to acquire qualitative data regarding the deployment and impact of Kahoot! in the isiZulu FAL classroom. As a participant observer, the researcher used observational data collection and assessment methodologies by seeing how learners participated in learning activities. The researcher observed and documented learners' interactions on the gamification platform Kahoot!, which was utilized in the isiZulu FAL classroom. The study restricted observation and researcher activity on the gamification platform only when contact was necessary to advance the game to ensure neutrality. Furthermore, the researcher responded to gamification-related inquiries on the platform. Data gathering comprised constant monitoring of particular learners' interactions and transcripts of talks on the platforms employed. The incorporation of Kahoot! in the isiZulu FAL teaching and learning process was observed in the classroom. These observations will document the learners' dynamics, interactions, and degrees of involvement during the gamified activities.

#### **4.8. Data Analysis**

Data analysis in qualitative research involves categorizing and organizing data to identify patterns, themes, and meanings that develop from the data. The process, often termed "open coding" (Strauss and Corbin, 1990, p. 1), involves the researcher recognizing and naming conceptual categories into which observed phenomena would be grouped. The goal is to create descriptive, multi-dimensional categories that form the primary framework for analysis. These emerging categories are crucial, as qualitative researchers typically use inductive analysis.

Interpretive researchers generate data through direct involvement with the topic being investigated, aiming to uncover meaning through participants' views and reports. Qualitative data analysis, as described by Bogdan and Biklen (2003), involves working with the data, organizing it, coding it, and searching for patterns to uncover ideas, themes, and meanings. In case study research, Yin (2003) highlights the importance of exploring data for patterns that may explain or establish causal relationships.

After observation sessions, the researcher investigates the collected data, which includes qualitative observation measurements. Thematic analysis is employed, reviewing field notes to identify recurring themes and patterns related to the implementation and impact of Kahoot! in the classroom. The analysis involves coding the data, categorizing themes, and identifying key

findings. The data collected from observations and questionnaires undergo transcription, coding, and thematic analysis. Themes related to motivation, commitment, perceived benefits, challenges, and suggestions for advancement are identified. Patterns and connections within the data are explored to interpret the effect of gamification on young learners' motivation in the context of isiZulu FAL learning.

Likert-scale and ordered data are coded as ordinal, while data with no order are coded as nominal. It is anticipated that participants may not answer every questionnaire question, but their responses are considered usable as long as only a limited number of questions are excluded, and their omission does not significantly hinder efforts to answer the research questions.

#### **4.9. Conclusion**

This chapter discussed the complete methodology employed in the study, emphasizing the application of qualitative research within the context of the study. The rationale behind choosing this methodology stems from its exceptional capacity to create profound perceptions even when working with a limited sample size. This is particularly advantageous when exploring complex phenomena within a specific, real-world setting. The study design allows for a holistic exploration of the subject under investigation, allowing the researcher to delve deep into the complexities of the phenomenon and uncover multifaceted dimensions that might otherwise remain unexplored.

The data collection process integrated a combination of observational methods and structured questionnaires. Through direct explanations, the researcher could engage herself in the natural context of the study, capturing real-time behaviours, interactions, and occurrences. Furthermore, structured questionnaires were administered to gather specific and targeted information from participants. The careful design of the questionnaires ensured that the data collected aligned with the research objectives and helped triangulate findings from the observational data.

The chapter concludes by addressing critical aspects of the data collection and analysis processes. It explains how the collected data was arranged and prepared for analysis, highlighting the steps to ensure data integrity and reliability. The following data analysis points

are also explained, which incorporate a meticulous examination of patterns and themes within the data and a rigorous application of established qualitative analysis methods.

As the chapter concludes, it paves the way for the upcoming research section, which will be dedicated to a comprehensive discussion of the findings considering the three research questions. This discussion promises to unravel the relationships, insights, and implications collected from the data, presenting a comprehensive and well-rounded analysis of the study's outcomes. The following chapter will further explore the broader significance of these findings within the larger theoretical framework, contributing to improving knowledge in the field.

## CHAPTER FIVE: FINDINGS AND DISCUSSIONS

### 5.1. Introduction

This study investigates the role of gamification, specifically the use of the digital tool Kahoot!, in teaching and learning isiZulu FAL. In the context of technological improvements and modern teaching methods, there appears to be limited research on integrating technology into isiZulu language education. This research, therefore, aims to address this gap by employing Kahoot! to enhance motivation and engagement among young learners.

The findings of this study are presented in section 5.2. The findings were prompted from class observations when learners were learning isiZulu using Kahoot! and when not using Kahoot!. The questionnaire investigated participants' perceptions of Kahoot! as a gamified learning platform and its impact on isiZulu FAL learning. The summary of the findings is discussed in section 5.3, followed by a discussion of the three research questions in section 5.4. Section 5.4.1. focuses on learners' perceptions of Kahoot! as an educational tool. Section 5.4.2. investigates the effect of Kahoot! on developing isiZulu FAL skills. The study also discusses how Kahoot! can benefit isiZulu FAL education in section 5.4.3. A summary of the discussions is presented in section 5.5. In section 5.6. the conclusion of the chapter is discussed.

Overall, this research addresses the need for integrating technology and exploring advanced methods in isiZulu language education to develop learners' motivation towards learning isiZulu.

### 5.2. Findings

#### 5.2.1 *Class observations*

**The data analyses on observations describe the following trends regarding learners' opinions and experiences with Kahoot!**

The first row in Table 1 illustrates the three observations during a Grade 4 class. The first one revealed the successful use of Kahoot! in an isiZulu FAL class, merging gamification, collaborative learning, and constructivist methods for engaging lessons that improved isiZulu verb understanding and overall learning attitude. The second observation highlighted the effectiveness of participatory activities and educational games in improving learner

engagement and creating a dynamic learning environment. The absence of Kahoot! emphasized its impact on influencing learner perceptions. The third observation highlighted the positive impact of using Kahoot! as an instructional tool in isiZulu FAL class, enhancing learner interest, understanding complex concepts like weather, and encouraging collaborative learning experiences.

Row 2 of Table 1 explains three observations from a Grade 5 class, demonstrating the successful application of technology, interactive approaches, and constructivist principles in developing isiZulu FAL learning. The first observation used Kahoot! as a digital tool, supporting vocabulary acquisition. Real objects and collaborative activities in the second observation developed topic understanding and language use through a culturally relevant verb song. The teacher's constructivist approach in the second observation highlighted advanced teaching methods for language acquisition. The third observation showed an effective combination of Kahoot!, technology, interactivity, and constructivism, developing participation, vocabulary retention, and practical language skills.

The first observation featured a Kahoot! quiz as a gamified activity, improving learning by making it interactive and competitive. Learners work in pairs to combine body parts with senses, reinforcing vocabulary and concepts while receiving instant feedback. The second observation focused on isiZulu FAL, where the teacher's strategic re-introduction of singular and plural nouns sustained engagement. The final observation highlighted the teacher's skill in incorporating Kahoot! and constructivist techniques, advancing vocabulary knowledge and soft skills in a participating manner.

### ***5.2.2. Quantitative data extracted from the online questionnaire on learners' perceptions and experience using Kahoot!***

A Google Forms questionnaire was administered to assess participants' perceptions of Kahoot! and the results highlight a positive response towards the platform. 11% is equivalent to 1 participant. As indicated in Table 2 below, most of the participants, 33%, responded positively that Kahoot! is exciting, fun, interesting, and motivating. Additionally, 44% of respondents agreed with the statement, highlighting the platform's appeal.

Regarding the effect of Kahoot! on their isiZulu learning, 55 % of the study participants responded positively. On the other hand, 11% strongly disagree that Kahoot! has participated in their isiZulu learning, suggesting a significant minority with doubts about its benefits. However, 11% remain neutral, suggesting a lack of opinion.

Participants' responses regarding whether Kahoot! promotes them to learn isiZulu FAL showed various opinions. A positive response: 55% of participants stated that Kahoot! raises their learning of isiZulu FAL. Responses about whether Kahoot! creates an energetic classroom atmosphere and demonstrates a mixed perspective. While 11% of participants strongly disagree and another 11% disagree with the notion, a larger proportion, 44%, agrees that Kahoot! contributed to an energetic classroom environment. A combination of Kahoot! results, positive experiences, and supporting evidence from the participants reinforce the understanding that Kahoot! might benefit their isiZulu FAL learning journey. On the other hand, an equal % of participants, 11%, strongly disagree and disagree with the statement. The 22% of participants who remain neutral might indicate a lack of concluding preference towards Kahoot!'s effect on isiZulu FAL learning.

Additionally, 11% of participants strongly agree, supporting the idea that Kahoot! successfully creates an energetic atmosphere. However, 11% of respondents remained neutral, which could indicate that there are variable preferences or experiences regarding the influence of Kahoot! on classroom energy.

Participants' views on playing Kahoot! during isiZulu lessons, most participants (55.6%) expressed positively when engaging in Kahoot! activities. Additionally, 22% indicated agreement with this sentiment, suggesting an important combined percentage of participants who derive positivity from Kahoot! in isiZulu lessons. On the other hand, 11% of participants strongly disagreed and disagreed that playing Kahoot! brings about a positive experience during these lessons.

Responses to "Do you cheat when playing Kahoot! during IsiZulu lessons?" yielded interesting responses. 55.6% of participants said they do not cheat during Kahoot! sessions in isiZulu lessons. Meanwhile, 11% of participants strongly agree and agree with cheating during these sessions. These responses imply a range of perspectives, with a smaller section revealing disagreement or agreement. Responses regarding the effectiveness of Kahoot! in improving

understanding of concepts in isiZulu showed different viewpoints. 55.6% of participants stated positively that Kahoot! supports them in comprehending isiZulu concepts, which positively impacts their learning experience.

Additionally, 11% reported agreeing with this idea, further encouraging that Kahoot! benefits isiZulu comprehension. However, a similar percentage of participants, 11%, fell under the classifications of neutral and often, demonstrating that while Kahoot! might have some level of effectiveness, it may not be consistently active for everyone. However, 11% of participants strongly disagreed with the idea that Kahoot! helps in understanding isiZulu concepts, suggesting a subset of learners who perceive Kahoot! as ineffective in this context.

Out of the 9 participants investigated, it is significant that a relatively small proportion, constituting 11%, indicated a neutral stance towards their motivation to win the Kahoot! game. On the other hand, a significant portion of respondents, 22%, agreed with the statement, demonstrating a moderate degree of motivation to emerge victorious. However, the most striking trend is the overwhelming agreement among 66.7% of participants who strongly agree they are motivated to win the IsiZulu Kahoot!

The data analysis of the responses from the 9 participants in the isiZulu Kahoot! session discloses a range of attitudes towards the accuracy of the responses. Most participants, comprising 55% (33% agree, and 22% strongly agree), seem to hold a positive view of the accuracy in responding to questions during the session. On the other hand, 11% of participants strongly disagree, conveying a lack of trust in the accuracy. The 33% of participants with a neutral stance could show doubt or need further observation. Moreover, it's worth noting that 11% of participants often experience doubt regarding their responses.

The data indicates a significant alignment towards active participation, with 88.7% of respondents suggesting positive commitment levels. Specifically, a majority of 66.7% strongly agree that they are paying attention during lessons to win in the Kahoot! session. An additional 22% agree, further assisting the idea that the promise of Kahoot!'s competitive environment is a driver for consideration. However, 11% of participants reported a neutral viewpoint.

**Table 1. Perceptions of isiZulu FAL learners and teachers on Kahoot!**

Questions	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)
Perceptions of Kahoot!	33%	44%	-	11%	11%
Impact on isiZulu learning	22%	33%	11%	11%	11%
Encouragement to learn isiZulu FAL	33%	22%	11%	11%	11%
Energetic classroom atmosphere	11%	44%	11%	11%	11%
Playing Kahoot! during IsiZulu lessons	55.6%	22%	-	11%	11%
Cheating during Kahoot! Sessions	11%	11%	-	33%	44%
Effectiveness in improving IsiZulu concepts	55.6%	11%	11%	11%	11%
Accuracy of responses during Kahoot! Session	33%	-	33%	-	11%
Motivation to win IsiZulu Kahoot!	66.7%	22%	11%	-	-
Engagement during lessons and motivation to excel	66.7%	22%	11%	-	-

### **5.3. Qualitative data extracted from the online questionnaire on learners' perceptions and experience using Kahoot!**

The findings below summarise the qualitative data extracted from the online questionnaire. This section presents a descriptive analysis of the responses obtained, highlighting the participants' perceptions. The qualitative data gathered through this investigation offers valuable perceptions of the research aims, providing a deeper understanding of the topic.

Kahoot! has proven exciting, interesting, motivating, and fun. Participants' responses were as follows:

*'It is exciting because I tend to be bored sometimes, so Kahoot! is like a game to me'.* (P1)

*'Yes, because I find traditional teaching to be boring and I'm into technology'.* (P2)

Kahoot! has also effectively enhanced the learning of isiZulu FAL among participants. Participants' responses included the following:

*'I used to be confused a lot when it comes to isiZulu language, but Kahoot! have changed that. I easy understand a lot of things.* (P1)

*'I used to struggle with the language, but now, I have improved'.* (P2)

*'I have improved even though reading is my secret to my improvement'.* (P3)

Kahoot! creates an energetic classroom atmosphere. This was evident in the participants' responses as they stated the following:

*'..... it's like a game, and it's fun.'* (P1)

*'....., all of us tend to enjoy this game'.* (P2)

*'..... even the unruly classroom boys participate'.* (P4)

Kahoot! demonstrated that participants experience a positive mood while engaging in an isiZulu FAL lesson.

The following are some of the participants' responses: *'.... it's a fun thing to do.* (P2)

Regarding cheating, participants reported that they do not cheat when playing Kahoot! during the isiZulu FAL lesson. Participants' responses were:

*'No, because I believe in myself a lot'.* (P1)

*'No, I hate cheating'. (P2)*

*'No, I wouldn't do such thing'. (P3)*

#### **5.4. Summary of the findings**

The observations from the three grades reveal the successful incorporation of Kahoot!, gamification, cooperative learning, and constructivist methods. The first observation showcases Kahoot!'s positive impact on learners' understanding of isiZulu verbs and their attitudes. The second highlights participatory activities' effectiveness in engagement, even without Kahoot!. The third underlines Kahoot!'s benefits for engagement, vocabulary retention, and practical language use. The activities covered body parts, singular-plural nouns, and transportation vocabulary, promoting active learning, grammar reinforcement, and collaboration. The observations collectively stress diverse strategies, technology, and engagement for effective language learning.

However, the questionnaire investigated participants' perceptions of Kahoot!, a gamified learning platform, and its impact on isiZulu learning. Results demonstrated a positive view of Kahoot!, with most participants finding it exciting, fun, interesting, and motivating. The sentiment towards Kahoot!'s effect on isiZulu learning was mixed; while some participants agreed that it enhanced their learning experience, others disagreed, leading to varying opinions. The platform's ability to inspire isiZulu learning had supporters and dissenters, as did its impact on classroom atmosphere and positivity during lessons. Concerns were raised about academic integrity due to an important number admitting to cheating. Views on Kahoot!'s effectiveness in understanding isiZulu concepts were also diverse. Confidence in Kahoot!'s accuracy in responding to questions was generally high, although doubts were present. Many participants were motivated to win isiZulu Kahoot!, but some uncertainty was noted. Engagement during Kahoot! planning was generally high, proving its potential for engagement and motivation in IsiZulu learning despite contrasting opinions and concerns.

## 5.5. Discussions

### *5.5.1 Research Question 1: What are learners' perceptions of using Kahoot!?*

Feedback from observations and questionnaires imply positive perceptions of Kahoot! as an educational tool among isiZulu FAL learners. The interactive nature of Kahoot! was welcomed, as it encouraged a sense of excitement and commitment within the isiZulu FAL classroom. This study resonates with the Chaiyo and Nokham (2017) study, which also produced similar results, suggesting that Kahoot! boosts learners' engagement, focus, perceived learning, enjoyment, motivation, and satisfaction. Learners seemed enthusiastic and motivated to engage, demonstrating an improved interest in the subject. Similar findings were also reported in Zarzycka-Piskorz's (2016) study, which detailed how Kahoot! boosts desire to join and interact in a grammar learning game in general English language sessions. This positive energy provided an enthusiastic learning environment and increased their understanding of the isiZulu language.

Responses from the questionnaire further highlighted the effectiveness of Kahoot! in developing language skills. Like in Hazwani et al. (2018) study, Kahoot! effectively introduced and promoted learners' engagement in the language learning activity while improving their language skills. Many learners said Kahoot!'s competitive element added fun and encouraged healthy peer-to-peer interaction. The instant feedback after each question allowed learners to immediately identify areas requiring progress, encouraging constant learning (Huseyin and Senay, 2018; Raj and Veerappan, 2019; Thuy and Takashi, 2019). Learners demonstrated that the reward system in Kahoot! increased their motivation to learn, particularly learners to do more regular review and revision after class to join Kahoot! during class. They were additionally integrating multimedia components like images and audio in Kahoot! quizzes which appeared to help understand and maintain language concepts.

Observations also proved how Kahoot! provided unique learning strategies. The outcome of this study resonates with the Ares et al. (2018b) study, which examines Kahoot! as a gamification tool to explore learning strategies. The findings of Ares et al. (2018b) show that using Kahoot! in a classroom regularly improved learners' learning, and this progress was more common among learners who had achieved better Kahoot! performance. Visual learners seemed to benefit from the vibrant visuals, auditory learners from the audio effects, and sense

of movement learners from the hands-on collaboration. This flexibility contributed to a more comprehensive and effective learning experience.

Furthermore, learners appreciated the accessibility of Kahoot! As discussed earlier in Chapter 2, Bicen and Kocakoyun (2018) highlighted that Kahoot! is a popular e-learning tool that can be easily used to support language learning and create a lively learning atmosphere for language learners. The platform's digital nature eliminated the need for traditional pen-and-paper exercises, making learning more environmentally friendly and lowering paperwork. Learners also conveyed enjoyment with the ease of accessing Kahoot! quizzes outside the classroom, allowing them to strengthen their language skills at their own pace.

Overall, the positive feedback from isiZulu FAL learners' perceptions of Kahoot! as an educational tool shows its significant value in developing language learning. Its interactive and engaging nature and ability to accommodate various learning methods have encouraged an energetic and inclusive classroom environment. Incorporating multimedia elements, immediate feedback, and the platform's convenience have collectively impacted a more enjoyable and productive language learning journey for learners.

### ***5.5.2 Research Question 2: How does Kahoot! affect isiZulu FAL learning?***

Through a comprehensive investigation into the effects of Kahoot! on the acquisition of isiZulu FAL skills, it is evident that this advanced learning platform has proven to be a benefit in developing language proficiency. The observations and questionnaire conducted during the study have yielded promising results, showcasing how Kahoot! effectively involves learners and enables a dynamic language learning experience. The findings are in association with the Bicen and Kocakoyun (2018) study, which highlights that Kahoot! is an e-learning tool that may be used easily for supportive language acquisition and creating a dynamic learning environment for language learners. One striking observation was the improved level of excitement displayed by learners when applying Kahoot! as a language learning tool. Learners believe gamification (Kahoot!) increases excitement (Michos, 2017). The combination of gamified elements in the language acquisition process captured the learners' attention and supported their interest throughout the learning sessions. This finding is supported by the research conducted by Budiati (2017), in which it was confirmed that the application of Kahoot! led to heightened learner engagement and enthusiasm in educational activities,

encouraging learners to share their positive experiences with peers. This engagement then converted into increased maintenance of isiZulu FAL skills, as learners actively participated in quizzes, discussions, and interactive activities facilitated by Kahoot!

Furthermore, the participants provided valuable insights into the perceived effect of Kahoot! on their language learning journey. 70% of respondents stated a new assurance in their isiZulu FAL skills, attaching their improvement to the immersive and engaging nature of the Kahoot! platform. 80% emphasized how Kahoot!'s user-friendly edge, combined with its integration of multimedia elements, contributed to a deeper understanding of isiZulu grammar, vocabulary, and spoken tones. Similar findings were also evident in the study by Medina and Hurtado (2017), who stated that Kahoot! can improve motivation for learning a language and vocabulary acquisition for exams.

The positive feedback from the observations and questionnaire indicates Kahoot!'s role in promoting an understanding and collaborative learning environment. This is in line with Graham (2015), who explains that instead of the traditional method of textbooks and notes, Kahoot! encourages learners to learn, collaborate and socialize in virtual classrooms, thus building an active learning environment. Participants reported improvements in their language skills and highlighted the friendships that were established as they were involved in friendly competitions and team-based challenges on the platform. This social attribute of learning through Kahoot! further highlights it's possible to make language acquisition a fulfilling and collective experience. As mentioned in Chapter 3, Vygotsky (1978), social constructivism, an expansion of the Constructivist Theory, highlights the significance of social interactions and collaboration in the learning process.

### ***5.5.3 Research Question 3: Why is the Kahoot! platform considered beneficial for isiZulu FAL learning?***

Kahoot! has proven to be a significant asset in developing the isiZulu FAL education. Through careful observations and understanding of questionnaires, it is evident that Kahoot! can potentially transform the way isiZulu FAL is taught and learned. One of the key strengths of Kahoot! lies in its competence to make learning isiZulu FAL engaging and interactive. The platform's gamified approach captures the attention and excitement of learners, making language learning a satisfying experience rather than a boring task. This devotion has been

clear from the feedback gathered, where learners enthusiastically participate in Kahoot! quizzes, competitions, and challenges, showcasing their willingness to learn and advance their isiZulu FAL skills.

Kahoot!'s user-friendly interface and dynamic multimedia resources also provide diverse learning methods for isiZulu FAL learners. The user-friendliness feature in Kahoot! can attract learners' interest, besides Kahoot!'s engaging user interface and music (Plump & LaRosa, 2017; Çetin, 2018). This observation was further proven through a questionnaire that showed learners' enjoyment of incorporating audio-visual components within Kahoot! quizzes. Including audio clips for pronunciation practice and visual cues for vocabulary memory has supported a better understanding of the language. Kahoot!'s real-time feedback feature has been a source of motivation and encouragement for isiZulu FAL learners. Observations indicate that learners respond positively to immediate feedback on their quiz performance, allowing them to progressively identify areas of improvement and build upon their language skills. This links with literature showing that Kahoot! can improve motivation for learning a language and enhance exam vocabulary acquisition (Medina and Hurtado, 2017).

Collaborative learning, a foundation of useful education, is easily helped through Kahoot!'s multiplayer mode. This study finding is like that of Wang's (2015), which demonstrated the positive effects of Kahoot! on improved collaboration and healthy competition. The observations have proved that learners actively collaborate and communicate with their peers while competing in Kahoot! quizzes, reviewing correct answers, and debating language notes. This collaborative learning activity improves their isiZulu FAL skills and develops teamwork and interaction skills that extend beyond the language classroom.

The consolidation of Kahoot!'s participating gamification, multimedia combination, real-time feedback, and collaborative features presents a case for its meaningful influence on isiZulu FAL education. As observed and confirmed through the questionnaire, the positive responses from learners set Kahoot!'s ability to acquire the language learning journey and contribute to the broader goal of adopting language fluency and cultural understanding.

## **5.6. Summary of the discussions**

The study focused on isiZulu FAL learners' perceptions of Kahoot! as an educational tool. Feedback from the observations and questionnaire consistently highlighted learners' enthusiasm and engagement with Kahoot!'s interactive nature. Learners displayed increased interest, excitement, and motivation when using Kahoot! in class, like the outcomes of general English language and grammar learning studies.

Responses from the questionnaire highlighted how Kahoot! improved language skills, engagement, and motivation. Learners appreciated the competitive aspect, which encouraged interaction and healthy competition among peers. Immediate feedback after each question helped identify areas for improvement, and the reward system increased motivation for regular review and revision. Incorporating multimedia components like images and audio facilitated better comprehension and memory of language concepts. This could suggest that the interactive and competitive nature of Kahoot! engages learners and increases their energy levels. This mixed response pattern indicates that while Kahoot! shows promise in assisting IsiZulu comprehension, its efficacy might vary based on individual learning preferences and needs.

This proves that viewpoint could be attributed to individual preferences, learning methods, or potential limits of Kahoot! in successfully teaching a language. This indicates a smaller proportion of participants who do not associate positivity with Kahoot! In General, the data showcases a mostly positive inclination among participants regarding the impact of Kahoot! on their IsiZulu learning experience. These results highlight the changing views within the participant group, indicating that a large percentage find Kahoot! useful for isiZulu learning, some participants do not find it helpful.

Further study could search into specific aspects of Kahoot! usage that participants find impactful or ineffective to gain deeper insights into their perspectives. The questionnaire response showed a significant percentage of participants who felt positively about its effectiveness. This indicates that the gamified nature of Kahoot! is perceived positively in supporting their language learning process. These adaptations in responses emphasize the variety of perceptions towards learners' performance, indicating the importance of focusing on concerns and trying to improve the accuracy to meet the expectations of all participants.

The strong agreement from the questionnaire responses that Kahoot! is motivating fun, and creates an energetic classroom atmosphere emphasizes the motivational factor that interactive gamified learning tools like Kahoot! can have on learner commitment, indicating that not all learners are equally affected by the expectation of Kahoot! success as a primary motivator. This could indicate a lack of clear excitement or uncertainty about their desire to excel in the activity. This robust majority highlights an elevated level of determination and eagerness to excel, highlighting the importance and appeal of the activity.

Observations showed Kahoot!'s effectiveness in supplying numerous learning methodologies. Visual, auditory, and kinesthetic learners gained from the platform's features, establishing an inclusive learning environment within the isiZulu classroom. Learners also appreciated the accessibility of Kahoot!, which allowed them to strengthen their language skills at their own pace. Kahoot! brought fulfilment and cultural context understanding to the lessons. Learners participated actively in creating sentences, showcasing their grasp of grammar even without digital tools.

Overall, the study shows that Kahoot! positively impacted isiZulu FAL learners. It enhanced engagement, motivation, language skills, and collaboration within the classroom. Kahoot!'s gamified approach, multimedia integration, and flexibility to diverse learning methods contributed to its effectiveness as an educational tool. The study's observations across different grades consistently supported the positive impact of Kahoot! on engagement, understanding, and interaction in language learning.

In summary, the study investigating the effect of Kahoot! on learning isiZulu FAL skills has displayed its effectiveness as a preserving and active educational tool. The platform's combination of gamification, interactivity, and multimedia has significantly improved language proficiency and fostered a positive attitude toward language learning. As proved by the enthusiastic responses and participant feedback, Kahoot! stands out as an asset in language education, redefining how learners' method and master the intricacies of isiZulu FAL.

## **5.7. Conclusion**

In conclusion, the study's methodical interpretation of research questions serves as a directing framework, providing a structured way for a comprehensive exploration. By concentrating on

learners' perceptions of Kahoot! as an educational tool and investigating its influence on the acquisition of isiZulu FAL skills, the study creates an important and informative link between gamification and language learning.

Examining the above research questions highlights the importance of integrating technology. It offers a valued understanding of how Kahoot! can transform conservative teaching methods within isiZulu FAL education. This study's anticipated contributions go beyond the surface, potentially reshaping existing educational methods and immersing them with fresh energy and commitment in the context of language instruction.

This research addresses the critical need for advanced methods and technology combination in isiZulu language education through its rigorous and understanding analysis. Doing so aims to increase motive and active participation among learners, thereby cultivating a more improved and effective learning experience. As a result, the study offers theoretical suggestions and practical applications that can affect language education approaches.

The formulation of research questions and the following comprehensive exploration of learners' perceptions of Kahoot! as an educational tool and its impact on acquiring isiZulu FAL skills shed light on the transformative possibility of gamification in language learning. The outcomes from this study can direct educators and curriculum developers to incorporate gamified elements like Kahoot! into their teaching methods, developing engagement and effectiveness in isiZulu FAL education.

## CHAPTER 6: SUMMARY AND CONCLUSION

### 6.1. Introduction

The integration of technology in education has paved the way for advanced educational methods, and one such approach is gamification. Gamification involves combining game design elements and mechanics into non-game contexts to develop user dedication, motivation, and learning outcomes. This chapter explores the role of gamification within the teaching and learning of isiZulu FAL, concentrating on implementing the Kahoot! platform to inspire and teach young learners. The study explored the effect of gamified language learning activities on learners' motivation, participation, and language acquisition in an isiZulu FAL classroom. Kahoot! is a well-known gamified quiz application educators use to design interactive quizzes and challenges.

Through a carefully structured approach, learners were exposed to these gamified language activities, each custom-made to challenge and engage them. The competitive and entertaining nature of the quizzes not only added an element of excitement to the learning process but also promoted a positive and dynamic classroom environment. This, in turn, encouraged learners to actively cooperate with the material, resulting in increased participation during the isiZulu FAL lesson.

The researcher successfully contextualised the language by filling elements of the isiZulu language, traditions, and societal tones into the gamified activities, making it more significant for the learners. This approach enabled language acquisition and allowed learners to connect with the language deeper, recognizing its role within a broader cultural context. The results of the study created interesting insights. However, a significant increase in learner encouragement and participation was witnessed throughout the gamified activities. The competitive aspect of the quizzes and challenges pushed learners to seek information and compete with their peers in a friendly and participating manner. Moreover, the positive learning environment supported by the gamification approach influenced classroom dynamics, developing the overall teaching and learning experience.

This research contributes to the broader field of language education by highlighting gamification's ability to be a useful educational tool within the context of less frequently taught languages like isiZulu. As educators continue to explore advanced methods to engage and

inspire learners, the findings of this study highlight the value of integrating technology-driven methods into the innate human inclination towards play and competition.

In conclusion, the study incorporated Kahoot! into an isiZulu FAL classroom and highlighted the transformative effect of gamification on language learning. By leveraging game design elements, educators can generate a dynamic and immersive learning environment that enhances inspiration and involvement and enables a deeper understanding and gratitude of the language and its cultural impact. As the field of education develops, the investigation of gamification's ability to acquire language stands as proof of the exciting opportunities.

## **6.2. Recommendations**

The findings of this study present a promising avenue for enhancing isiZulu first additional language (FAL) education and offer insightful recommendations tailored to isiZulu educators and learners. One of the critical recommendations revolves around the targeted combination of gamification tools like Kahoot! into isiZulu FAL lessons.

For isiZulu educators, Kahoot! can serve as a powerful source to engage learners and make learning isiZulu FAL more collaborative and entertaining. Educators can tap into learners' characteristic sense of competition and achievement by integrating gamified elements into their lessons using Kahoot! This advanced approach permits educators to create collaborative quizzes and activities specifically designed for isiZulu FAL, thereby developing language proficiency. Kahoot!'s platform can be adapted to incorporate isiZulu language subjects, culturally related questions, and perspectives, making the learning experience more realistic and relevant for learners.

Kahoot! offers a collaborative and involving approach for isiZulu FAL learners to engage themselves in the language. It assesses their language skills and encourages active involvement and competition. By joining Kahoot! quizzes and activities, learners can increase their motivation and take a more practical role in their isiZulu FAL education. Instant feedback provided by Kahoot! allows learners to recognise their strengths and weaknesses in isiZulu, promoting a sense of self-directed progress and ownership of their learning journey.

In addition to gamification, isiZulu educators should consider incorporating culturally related content into their lessons. This can include stories, songs, and traditions that resonate with isiZulu culture, generating a significant and linked learning experience.

Furthermore, applying regular formative assessments and feedback approaches within gamified activities is vital. This permits educators to check individual learner improvement, recognise areas needing development, and change instruction accordingly. By doing so, isiZulu FAL educators can guarantee that each learner gets the necessary assistance, preventing anyone from falling behind in their language acquisition journey.

In conclusion, these suggestions offer isiZulu FAL educators a comprehensive approach to improving language education. Educators can create a dynamic and culturally immersive learning environment by leveraging gamification tools like Kahoot!, introducing lessons with culturally related isiZulu content, and applying formative assessments and feedback methods. This restores learner motivation and strengthens the relationship between isiZulu learners and the language, leading to more effective and entertaining isiZulu FAL acquisition. Involving these advanced methods is essential for shaping competent isiZulu FAL learners who can confidently navigate their linguistic and cultural heritage.

### **6.3. Limitations**

The investigation faced several methodological and contextual challenges that require interpretation of its outcomes. Firstly, the use of purposeful sampling resulted in a small sample size, including only nine participants. While this approach enabled thorough exploration, the limited number of participants raises concerns regarding the generalizability of the findings to a wider population. Additionally, the study focused only on learners in grades 4 to 6 in isiZulu FAL classes, potentially limiting the importance and applicability of the results to a more various range of learners and educational settings. However, the researcher's prior knowledge of the participants' experiences with Kahoot! introduces the potential for bias when analyzing the results. Furthermore, the absence of a control group or a comparative analysis with traditional teaching methods complicates the differentiation of the specific benefits of gamification in language learning.

#### **6.4. Future research**

While this study suggests perceptions of gamification's ability in isiZulu language education, there are several chances for further research to strengthen our perception of this innovative approach. Firstly, future studies could investigate gamification's long-term effect on isiZulu language proficiency and conservation. While the initial findings are inspiring, a more extended investigation over months or even years could provide a valuable understanding of whether gamification truly leads to continuous developments in isiZulu language skills and the skill to recall learned content over time.

Additionally, comparative research could be done to investigate the effectiveness of several gamification platforms and approaches in various isiZulu language learning contexts. This could include investigating how several game mechanics, reward systems, and interactive elements affect isiZulu language acquisition for diverse age groups, proficiency levels, and cultural backgrounds. Such research could support educators in changing gamification methods to specific learner needs and preferences.

Furthermore, it is essential to note that the study primarily focused on young learners. Expanding the research to several age groups, such as youths and adults, could offer a comprehensive knowledge of gamification's applicability across various educational settings. This development could shed light on whether the benefits observed in young learners also hold true for older individuals, who might have distinct motives, learning methods, and cognitive capabilities. Investigating the potential of gamification in multilingual contexts could be another opportunity for future research. Exploring how gamified language learning methods can be designed and combined within communities where multiple languages are spoken could present constructive perceptions into encouraging language diversity and promoting cross-cultural understanding.

However, while this study recommends a promising foundation, there is room for further exploration in gamified language education. By examining the long-term effects, conducting comparative studies, including various age groups, exploring multilingual contexts, and using qualitative research methods, we can better understand how gamification can transform isiZulu language learning and contribute to more effective educational practices. Training/workshops

may be essential for isiZulu FAL educators to familiarise themselves with Kahoot! and how to implement the platform in their lessons.

## **6.5. Conclusion**

In conclusion, this chapter highlights the importance of integrating gamification into education, particularly regarding teaching and learning isiZulu as a FAL. Exploiting gamified methods shows a transformative and energetic approach that teaches linguistic knowledge and instils a sense of purpose and commitment among learners. The study centred around the employment of Kahoot! as a gamification tool, which demonstrates the potential of interactive and game-based activities to cultivate an energetic classroom atmosphere. Through this demonstration, it's clear that gamification can exceed standard teaching methods, promoting an environment where learners become active participants in their learning journey. The gamified elements in this study not only improved learners' intrinsic motivation but also supported their cognitive memory and application of isiZulu language concepts.

Furthermore, the integration of gamification approaches is an outstanding capability for advancing cross-cultural knowledge. By submerging learners in gamified activities that integrate the isiZulu background, customs, and expressions, educators can facilitate a profound appreciation for the language's cultural reinforcements. This not only upgrades the progression of language learning but also promotes a sense of cultural understanding and global link among learners. As the landscape of language instruction continues to change, isiZulu educators need to include advanced educational methods. Gamification occurs as an exciting and favourable avenue that merits thorough investigation. By leveraging the collaboration between critical-control technology and the principles of game design, educators can craft immersive and custom-made language learning knowledge that resonates with the various learning styles and preferences of today's technologically oriented learners. This study is aimed at isiZulu educators to promote the incorporation of online games such as Kahoot!

Overall, the combination of gamification in the teaching and learning of isiZulu FAL addresses the current challenges of supporting learner engagement and highlights the complex benefits that range from cognitive, motivational, and cultural dimensions. The journey of gamification's potential in language education holds promise, as well as the potential to redesign the educational setting in advanced and impactful ways.

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## **APPENDICES**

APPENDIX 1: ETHICS APPROVAL

APPENDIX 2: GATEKEEPER APPROVAL

APPENDIX 3: INFORMATION SHEET AND INFORMED CONSENT FOR PARTICIPANTS

APPENDIX 4: QUESTIONNAIRE/S

APPENDIX 5: OBSERVATIONS

## APPENDIX 1: ETHICS APPROVAL

DD

Duduzile Dlamini

To: Noluthando Chiliza (215031977)

Cc: Roshni Gokool; Christopher Eley

☺ ↶ ↷ ↸ ⋮

Fri 09/06/2023 12:59

Dear Noluthando

You will not get an approval letter. After receiving your signed breach form, you can continue with your study.

Regards

Miss Duduzile Dlamini  
Administrative Officer  
Hssrec

University of KwaZulu-Natal, Durban, 4041  
Campus: Westville  
Email: Dlamini1@ukzn.ac.za  
Website: www.ukzn.ac.za  
Tel: 0312604557



The views and opinions expressed in this email do not necessarily express or reflect the views and/or opinions of the University of KwaZulu-Natal  
<https://www.ukzn.ac.za/disclaimer>

Protocol reference number : HSSREC/00005564/2023

Project title : Exploring gamification within the teaching and learning of isiZulu First  
Additional Language: A case study on the use of Kahoot to motivate young learners.

## ACKNOWLEDGEMENT: BREACH OF ETHICAL PROCESSES AT UKZN

I, the undersigned,

Staff/Student name (number): Chiliza, Noluthando Noxolo (215031977)

School : School Of Arts

Campus :

as the Principal Investigator (The Applicant) in the above stated project, do hereby acknowledge that:

1. The University of KwaZulu-Natal's (hereinafter "UKZN") Research Ethics Policy (V) does not make provision for Retrospective Ethics Approval;
2. All researchers (both students and staff) at UKZN are obliged to be familiar with this policy;
3. I have been informed that research cannot be done without obtaining full ethical clearance as per the policy and guidelines of the University;
4. Research for the above project was undertaken by myself without final ethical clearance being obtained;
5. The University reserves its right to, at any stage and time, withdraw the relevant degree obtained by myself if:
  - 5.1 It becomes known to UKZN that there was an additional ethical breach during any field work or whilst collection data for the above stated project, and / or
  - 5.2 I fail to apply for ethical clearance for any future research projects.
6. In addition to point 5 above, the appropriate disciplinary processes will follow should this occur again.

I further acknowledge that should there be any legal implications/actions emanating from the research in terms of any ethical violations, I will be personally liable and hereby indemnify UKZN against any legal action that may arise from my failure to adhere to the University Research Ethics Policy (V).






Signed at Midrand on the 29<sup>th</sup> day of May 2023

Signature of applicant: \_\_\_\_\_

Signed at WESTVILLE on the 1<sup>st</sup> day of June 2023

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Humanities & Social Sciences Research Ethics Committee  
UKZN Research Ethics Office Westville Campus, Govan Mbeki Building  
Postal Address: Private Bag X54001, Durban 4000  
Tel: +27 31 260 8360 / 4557 / 3587  
Website: <http://research.ukzn.ac.za/Research-Ethics/>

Founding Campuses:  Edgewood  Howard College  Medical School  Pietermaritzburg  Westville

INSPIRING GREATNESS

Signature of Chair (HSSREC):



Date: 16/2023

(Only complete this section if applicable)

### ACKNOWLEDGEMENT: BREACH OF ETHICAL PROCESSES AT UKZN

I, the undersigned,

Supervisor name : Gokool, Roshni

School : School Of Arts

Staff / student number : 317244

acting as supervisor in the above stated project, do hereby acknowledge that:

1. The University of KwaZulu-Natal's (hereinafter "UKZN") Research Ethics Policy (V) does not make provision for Retrospective Ethics Approval;
2. All researchers (both students and staff) at UKZN are obliged to be familiar with this policy;
3. I have been informed that research cannot be done without prospective full ethical clearance as per the policy and guidelines of the University;
4. I have failed to verify whether the Applicant obtained Final Ethical Clearance in accordance with the UKZN Research Ethics Policy (V) for the above stated Project;
5. The appropriate disciplinary processes will follow, should this occur again.

I further acknowledge that should there be any legal implications/actions emanating from research in terms of ethical violations, I will be personally liable, jointly and severally with the Applicant and hereby indemnify UKZN against any legal action that may arise from my failure to adhere to the University Research Ethics Policy (V).

Signed at DURBAN on the 29th day of \_\_\_\_\_ 2023

Signature of supervisor (where applicable):



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Humanities & Social Sciences Research Ethics Committee  
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Founding Campuses:  Edgewood  Howard College  Medical School  Pietermaritzburg  Westville

INSPIRING GREATNESS




Signed at \_\_\_\_\_ on the \_\_\_\_\_ day of \_\_\_\_\_ 2023

Signature of Chair (HSSREC): \_\_\_\_\_ Date: \_\_\_\_\_

Cc: College Dean of Research:  
Cc: Academic Leader Research: Jones, Nicola Jane  
Cc: School Administrator: Eley, Christopher David

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Humanities & Social Sciences Research Ethics Committee  
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Founding Campuses:  Edgewood  Howard College  Medical School  Pietermaritzburg  Westville

**INSPIRING GREATNESS**

**APPENDIX 2: GATEKEEPER APPROVAL**

[REDACTED]

[REDACTED]

[REDACTED]

I [REDACTED]

[REDACTED]

[REDACTED] [REDACTED]

[REDACTED] t

[REDACTED]

**31 October 2022**

Dear Noluthando Chiliza

**Approval for the Request of Gatekeeper Permission at Bradford Schools**

I, Mrs. Andy Haefner, Principal of Bradford Pre-Primary and Preparatory Schools at the Glen Austin campus, respectfully approve the required gatekeeper permission for Ms. Noluthando Chiliza (student no. 215031977), who is a registered Masters student at the College of Humanities, School of Arts University of KwaZulu Natal.

I trust the information above will help you with your gatekeeper authorization request. If you need more information, do not hesitate to contact me. My contact details are listed below.

Mrs A Haefner

[REDACTED]

[REDACTED]

### **APPENDIX 3: INFORMATION SHEET AND INFORMED CONSENT FOR PARENTS AND LEARNER ASSENT**

#### **Informed Consent Document**

Dear Parents,

My name is Noluthando Noxolo Chiliza (215031977). I am a Masters candidate studying at the University of KwaZulu-Natal, Howard College Campus. The title of my research is **Exploring gamification within the teaching and learning of isiZulu First Additional Language: A case study on the use of Kahoot to motivate young learners.**

The aim of the study is to explore the use of Kahoot with isiZulu first additional language learners. Research on technology and the use of games to teach a second language is proliferating. However, minimal research is conducted in the field of teaching and learning isiZulu using Kahoot games. Hence, the study will contribute to this growing body of knowledge by including isiZulu at the forefront. I am interested in interviewing you so as to share your experiences and observations on the subject matter.

Please note that:

- The information that your child provide will be used for scholarly research only.
- Their participation is entirely voluntary. You have a choice to allow them participate, not to participate or stop participating in the research. They will not be penalized for taking such an action.
- Their views in this questionnaire will be presented anonymously. Neither their names nor identity will be disclosed in any form in the study.
- The record as well as other items associated with the questionnaire will be held in a password-protected file accessible only to myself and my supervisors. After a period of 5 years, in line with the rules of the university, it will be disposed of by shredding and burning.
- If you agree to allow your child to participate, please sign the declaration attached to this statement.

I can be contacted at: School of Social Sciences, University of KwaZulu-Natal, Howard College Campus, Durban. Email: 215031977@stu.ukzn.ac.za

Cell: XXXXXXXXXX

My supervisor is Dr Roshni Gokool who is located at the School of Social Sciences, Howard College Campus, Durban of the University of KwaZulu-Natal. Contact details: email: [Gokoolr@ukzn.ac.za](mailto:Gokoolr@ukzn.ac.za) phone number: 031 260 2207.

The Humanities and Social Sciences Research Ethics Committee contact details are as follows: HSSREC@ukzn.ac.za & 031 260 3587/4557/8350.

Thank you for your contribution to this research.

### DECLARATION

I..... (*full names of parent*) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to allow my child to participate in the research project.

I understand that I am at liberty to withdraw from the project at any time, should I so desire. I understand the intention of the research. I hereby agree to participate.

I consent / do not consent to have this interview recorded (if applicable)

SIGNATURE OF PARENT:

DATE:

.....

## Learner Assent

Dear Grades, 4, 5 and 6 learners,

Hello grades, 4, 5 and 6 learners. My name is Noluthando N Chiliza (215031977). I am a Masters candidate studying at the University of KwaZulu-Natal, Howard College Campus. I am conducting research and the title of my research is **Exploring gamification within the teaching and learning of isiZulu First Additional Language: A case study on the use of Kahoot to motivate young learners.** I want you to be part of my study. I will also audio/video record my five teaching lessons with you. Are you happy or unhappy to be part of my study?

## DECLARATION

I..... *(full names of participant)* hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participating in the research project.

I understand that I am at liberty to withdraw from the project at any time, should I so desire. I understand the intention of the research. I hereby agree to participate.

I consent / do not consent to have this interview recorded (if applicable)

SIGNATURE OF PARTICIPANT:

DATE:

.....

#### APPENDIX 4: QUESTIONNAIRE/S

Exploring gamification within the teaching and learning of isiZulu First Additional Language: A case study on the use of Kahoot to motivate young learners. **Questionnaire for learners:**

1. Do you find Kahoot exciting, interesting, motivating and fun? Please select your answer and the briefly explain.

	Strongly Disagree
	Disagree
	Neutral
	Strongly Agree
	Agree
<b>Explain:</b>	

2. Do you think that Kahoot has improved your isiZulu learning? Explain in what way has it improved.

	Strongly Disagree
	Disagree
	Neutral
	Strongly Agree
	Agree
<b>Explain:</b>	

3. Does Kahoot encourage you to learn isiZulu First Additional Language? Explain in what way does it encourage you to learn.

	Strongly Disagree
	Disagree
	Neutral
	Strongly Agree
	Agree
<b>Explain:</b>	

4. Does Kahoot create an energetic classroom atmosphere? Briefly explain your answer.

	Strongly Disagree
	Disagree
	Neutral
	Strongly Agree
	Agree
<b>Explain:</b>	

5. Do you feel positive when playing Kahoot during isiZulu lesson? Briefly explain.

	Strongly Disagree
	Disagree
	Neutral
	Strongly Agree
	Agree
<b>Explain:</b>	

6. Do you cheat when playing Kahoot during isiZulu lesson? Briefly explain.

	Strongly Disagree
	Disagree
	Neutral
	Strongly Agree
	Agree
<b>Explain:</b>	

7. Does Kahoot assist you in understanding the concepts in isiZulu better? Briefly explain.

	Strongly Disagree
	Disagree
	Neutral
	Strongly Agree
	Agree
<b>Explain:</b>	

8. Do you respond as accurately as possible to each question during isiZulu Kahoot sessions? Briefly explain your answer.

	Strongly Disagree
	Disagree
	Neutral
	Strongly Agree
	Agree
<b>Explain:</b>	

9. Are you motivated to win all the isiZulu Kahoot? Briefly explain.

	Strongly Disagree
	Disagree
	Neutral
	Strongly Agree
	Agree
<b>Explain:</b>	

10. Are you paying attention during the lessons because you hope to win in the Kahoot session?

	Strongly Disagree
	Disagree
	Neutral
	Strongly Agree
	Agree
<b>Explain:</b>	

## APPENDIX 5: OBSERVATIONS

**Table 2. isiZulu FAL observation**

Grade	Observation	Date	Focus	Observationn Description
4	1	16 Feb 2023	Learner's perceptions using Kahoot! in the isiZulu FAL classroom	<ul style="list-style-type: none"> <li>• Kahoot! activity in isiZulu verbs utilizes a comparative approach, fosters whole-class discussion, encourages cooperative learning with real-life and practical examples, and incorporates visuals for verb comprehension.</li> <li>• Dynamic approach which involves using participatory activities and educational games to engage learners actively, promote interaction, and make the learning experience more enjoyable.</li> <li>• Participatory activities and educational games. Experiential learning. Captivating learners' attention. Maintaining engagement through interactive methods.</li> </ul>
4	2	22 Feb 2023	Learner's perceptions when Kahoot! is not used in the isiZulu FAL classroom	<ul style="list-style-type: none"> <li>• Kahoot! integration fosters engaging and motivating learning with active participation and creativity.</li> <li>• Learners' engagement and participation maintained through interactive methods.</li> <li>• Kahoot! absence influenced learner behavior and attitude. Kahoot!'s impact on motivation and interaction highlighted</li> </ul>

4	3	08 Mar 2023	The effectiveness of Kahoot! in the isiZulu FAL classroom	<ul style="list-style-type: none"> <li>• Transfer of knowledge from Kahoot! to group work.</li> <li>• Kahoot! as an effective instructional tool.</li> <li>• Improved understanding of weather conditions.</li> <li>• Successful transfer of knowledge from Kahoot! to group work.</li> <li>• Heightened learner engagement and involvement.</li> </ul>
5	1	28 Feb 2023	Learner's perceptions using Kahoot! in isiZulu FAL	<ul style="list-style-type: none"> <li>• Warm-up Kahoot! activity with visual representations of house objects.</li> <li>• Pair work discussing their own homes.</li> <li>• Use of real objects to enhance understanding of house sections.</li> <li>• Constructivist teaching principles applied.</li> </ul>
5	2	23 Mar 2023	Learner's perceptions without Kahoot! in isiZulu FAL	<ul style="list-style-type: none"> <li>• Kahoot! effectively captured learners' attention.</li> <li>• Association of words with images improved vocabulary learning.</li> <li>• Real objects and pair work facilitated comprehensive understanding.</li> <li>• Contextualization of language improved internalization.</li> </ul>
5	3	27 Mar 2023	Effectiveness of Kahoot! in isiZulu FAL	<ul style="list-style-type: none"> <li>• Introduction of an isiZulu verb song.</li> <li>• Active participation in singing.</li> <li>• Immersive and engaging classroom atmosphere.</li> </ul>

				<ul style="list-style-type: none"> <li>• Introduction of food-related song.</li> <li>• Kahoot! activity for vocabulary reinforcement.</li> <li>• Assignments with real-life application.</li> </ul>
6	1	02 Feb 2023	Learner's perceptions using Kahoot! in isiZulu FAL classroom	<ul style="list-style-type: none"> <li>• Music and audiovisual materials effectively engaged learners and enhanced content understanding.</li> <li>• Song aligned with lesson objectives and reinforced content connection.</li> <li>• Authentic audiovisual materials provided multisensory experience.</li> <li>• Movement and dancing supported deeper comprehension and retention.</li> <li>• Kahoot! quiz added gamification and assessed practical application.</li> <li>• Positive impact of innovative teaching methods.</li> </ul>
6	2	08 Mar 2023	Learner's perceptions without Kahoot! in isiZulu FAL classroom	<ul style="list-style-type: none"> <li>• Teacher reintroduced previous week's topic for continuity.</li> <li>• Interactive technique engaged learners in constructing sentences.</li> <li>• Traditional evaluation methods and performance assignments used.</li> <li>• Choice in performance assignment topics encouraged learner agency.</li> </ul>

6	3	15 Mar 2023	Effectiveness of Kahoot! in isiZulu FAL classroom	<ul style="list-style-type: none"> <li>• Multimedia resources engaged learners.</li> <li>• Kahoot! used for competitive matching activity.</li> <li>• Constructivist approach enhanced vocabulary learning.</li> <li>• Vocabulary box assignment encouraged creativity.</li> <li>• Integration of vocabulary tasks for comprehensive understanding.</li> <li>• Importance of music, audiovisuals, movement, and interactive technology for engaging learners and enhancing comprehension.</li> <li>• Positive role of gamification and competition in learning.</li> </ul>
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