The Effectiveness of Teaching Using Lingokids on the English Vocabulary Acquisition of First Year Primary Students
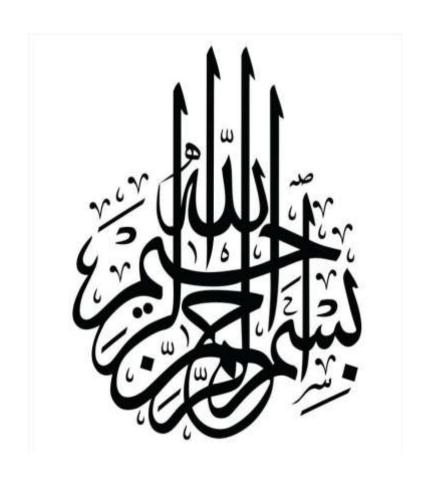
فاعلية التدريس باستخدام Lingokids في اكتساب مفردات اللغة الإنجليزية لطلاب الصف الأول الابتدائي

A Proposal Submitted in Partial Fulfilment of the Requirements
for the Master's Degree in Curriculum & Instruction

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Endorsement

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Recommendation of the Committee:
The Committee has approved this dissertation as a partial completion of the requirement for the Master Degree in Curriculum & Instruction

Examination and Decision Making Committee

(1445H/2023AD)

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Advisor				
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External Examiner				
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All praise to Allah for the completion of this work.

The Effectiveness of Teaching Using Lingokids on the English Vocabulary Acquisition of First Year Primary Students

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Abstract

This study investigates the effectiveness of teaching using Lingokids on the English vocabulary acquisition of first year primary students, and the differences in acquisition between genders. The study employs an experimental method for collecting the data, and its population consists of 47 randomly selected male and female first year primary students. Pre- and post-test are conducted. The findings demonstrate that the performance in the vocabulary acquisition of the experimental group of students improves significantly. The second question addressed by the study concerns the gender differences in vocabulary acquisition in this context, and the findings indicate that the female participants significantly outperform the male students.

Chapter 1

Introduction

1.1. Introduction

Childhood is considered to be the best time to commence study of a second language (L2), because children are though to study more quickly and effectively than adults (Hartshorne et al., 2018; Mevcudu et al., 2018). Moreover, key-phase theory asserts that children's capacity to learn a new language is optimal before adolescence (Lenneberg, 1967; Lightbown & Spada, 1999), with older individuals at a disadvantage in L2 learning. In addition, language surroundings significantly impact the early stages of L2 learning, and youngsters learn a new language most effectively when immersed in that language (Singleton & Ryan, 2004). By contrast, teenagers and adults often have considerable difficulty learning a new language and retain aspects of foreignness (Singleton & Ryan, 2004). Babies and young children acquire languages faster because of the flexibility of their brains, and their rapid neuronal development. This phase of development is called the 'critical era'. It is hypothesized that if a child does not acquire language, even a nonverbal language, at an early age, they may not be able to comprehend any language subsequently, since the required linguistic foundation in the brain will have been damaged irreparably (Hu, 2016).

Unlike adults, children are often unaware of the value of learning English as an additional language (Al Abiky, 2014). Many external variables can influence young children's desire to learn English as a second or foreign language, and they are significantly less likely to be impacted negatively by factors such as age and competence (Huang, 2011) because they have less direct contact with native speakers than older individuals, and their concept of self-awareness is still developing. It is now widely accepted that the motivation of young students to learn English can be impacted by a range of factors, including the activities and techniques utilized in the classroom (Dörnyei, 1998; Pinter, 2017). In recent decades, technology has evolved, becoming an essential instrument for teaching and learning. A study by Saleh Abusini (2020), which encouraged the use of technology in the learning process, found that mobile-assisted learning positively influenced educational development and learning. Nowadays, the education field recognizes the value of digital mobile learning, including gaming, as a teaching tool.

Classroom activities for young learners should be designed to help them feel confident and connected to others (Russ & Wallace, 2013), since they are likely to learn quicker and more effectively if the approach to teaching is engaging and integrates the use of technology in learning. A learning environment that includes enjoyable learning activities can even accelerate the learning process. An early study by Piaget (1951) reported that play promotes the development of children's

mental representation and abstract reasoning. Consequently, teachers often capitalize on young students' eagerness to learn by delivering new vocabulary via games, music, and fun technological tools.

In 2021, the Saudi Ministry of Education determined that English should be taught in schools from first grade onward. First-grade classes are a key experience in young children's lives, with every school including both boys and girls. However, despite the heroic efforts of first-year English instructors in Saudi Arabia, challenges abound when teaching this age group (Maynard et al., 2010).

Conventional teaching practices have long controlled the methods employed to teach English vocabulary in Saudi English as a Foreign Language (EFL) classes, with unintended effects (Al-Seghayer, 2015). Young learners in general now demand more inventive approaches to learning to motivate them and ensure that they retain what they have learned. Specifically, first grade students are best able to acquire and retain information when it is presented to them in an appealing manner tailored to their interests, which constitutes a key challenge when teaching them.

Recently, Oxford University Press introduced a new, innovative educational software called 'Lingokids', which provides enjoyable and instructive lessons and activities designed to enable children aged two to eight to learn English, and help them build 21st century skills. This study examines the influence and efficacy of the Lingokids's application to assist Saudi first-grade pupils' to learn English vocabulary.

1.2. Research Problem

Until recently, Saudi children began learning English in the fourth grade. English teaching in elementary level classes (first, second, and third grades) was not introduced until 2021, and a number of important facets have therefore not yet been addressed by researchers. Although Saudi children now learn English at school for approximately nine years, they encounter a number of challenges in their learning journey, and lack the appropriate language skills to convey their ideas and maintain extended engagement (Al-Ahdal & Alharbi, 2021; Ara Ashraf, 2018). Moreover, they are often unable to comprehend fundamental instructions, and most are unable to produce a single error-free phrase, in many cases struggling to understand the meaning of specific words and texts when reading. It is therefore vital that effective language programmes are introduced from the outset of their learning journey at primary school level, and that such programmes and Saudi Education Policies are executed appropriately. In order to overcome the problems encountered when learning English, instructors, syllabus developers, facilitators, and regulators need to collaborate to develop explicit curricular objectives and goals, and create a learner-centred curriculum (Oyelana et al., 2022).

Enormous resources are currently spent on English instruction in Saudi Arabia in order to obtain the desired outcomes. English instructors from all grades

and locations have been found to agree that since English is a foreign language and not a primary mode of instruction, teaching, and learning, this represents a challenge for both teachers and students. Significantly, language is not considered an applicable skill (Barnawi & Al-Hawsawi, 2016). Since children in Saudi Arabia's elementary schools receive just one English session or lesson each week, the lack of English language exposure means the quantity of the vocabulary taught in the classroom is limited. The current study therefore investigates the current general and individual impediments to learning English vocabulary, introducing an easily accessible instrument as a fundamental tool to support English language teaching, and to encourage collaboration and engagement both inside and outside the classroom.

Research Questions

1- How effectively does teaching using Lingokids support the English vocabulary acquisition of first-year primary EFL students in Saudi Arabia?
2- Are there statistically significant differences between boys and girls in the study sample regarding their acquisition of English vocabulary?

1.3. Research Objectives

This study seeks to fulfil the following objectives:

1. To measure the impact of a new educational application on first grade students' vocabulary learning and acquisition; and
2. To assess the differences between male and female students' vocabulary acquisition.

1.4. Research Significance

Similarly to previous studies in the field, this study presents strategies and recommendations that will benefit both teachers and curriculum designers when planning curricula and teaching English vocabulary to suit young students' interests and needs. It is anticipated that the study's findings will assist other researchers by providing evidence and solutions for enhancing and exploring creative L2 teaching methods, highlighting the importance of considering gender differences when utilizing different teaching tools.

1.5. Research Limitations

This study has three limitations:
1- The study population consists of a random sample of first grade students in Unizah City, Saudi Arabia;
2- The study was conducted during the third semester of the school year 1444; and
3- The study's population is first grade boys and girls studying at the same school.

1.6. Definition of Terms

Lingokids

Lingokids is an educational app designed to help young children learn foreign languages, specifically English. It targets children between the ages of two and eight, and offers a range of learning activities and games designed to be fun and engaging. Lingokids is available on a variety of platforms, including iOS, Android, and the internet, and can be accessed via a subscription service (UNICEF, 2022).

Lingokids is based on the premise that early language learning is beneficial for children's cognitive development, and can have a positive impact on their overall academic performance. The app uses a variety of methods to teach language skills, including interactive stories, games, songs, and exercises that focus on vocabulary, grammar, and pronunciation. It also offers personalized learning pathways, and adapts to the individual needs and progress of each student (Lingokids, 2022b). It is a comprehensive language learning tool that can be engaging and effective for young learners, offering a range of features and resources to support language learning in the classroom. It can alternatively be employed as a standalone learning tool.

Using Lingokids

The Lingokids app can be downloaded and installed on a smart device. Once installed, a parent or teacher can create an account and profile for each child being taught. This enables the child's progress to be tracked, and their learning experience to be customized (Lingokids, 2022a). A language and level is chosen for each child. Lingokids offers a range of language options, including English, Spanish, French, and Chinese. The app also offers different levels of difficulty, enabling the selection of the most appropriate for each child's skill level (Lingokids, 2022a).

After the students' profiles have been set up, the app can be explored, and the activities and games considered most beneficial for the student in question selected. In order to use Lingokids for teaching, the app can simply be opened, and the activities and games selected utilized by the student. The app can also be used to provide additional practice and reinforcement for concepts that are learned in class (Lingokids, 2022c). That is, these activities can be used to supplement regular language lessons or as a standalone learning tool (Lingokids, 2022b). The app also provides a range of tools and features that allow a child's progress to be tracked, and their performance viewed. Information concerning progress on the app can be used to adjust the teaching strategies employed in class, tailoring lessons to the needs of the student (Lingokids, 2022b).

Vocabulary Acquisition

Vocabulary acquisition is a dynamic process that involves both receptive skills, namely understanding new words when they are encountered, and productive skills, namely using new words in speaking and writing (TaŞÇI, 2017). It is defined as the process of learning and storing new words and their meanings in the long-term memory (Reynolds et al., 2015). The present study defines vocabulary acquisition as the process of learning and internalizing new words and their meanings, considering this an important aspect of language learning that is vital for effective communication and comprehension.

According to Al-Habsi et al. (2021), vocabulary acquisition encompasses three main stages: familiarization, internalization, and integration. During the familiarization stage, learners are exposed to new words via reading, listening, or speaking activities. This stage is important for building a foundation of knowledge about these words and their meanings. The internalization stage involves more active processing of the new words, as learners attempt to commit them to memory and practice using them in their own speaking and writing. This stage is often aided by explicit instruction and practice, such as vocabulary drills and exercises. Finally, in the integration stage, learners begin to use the new words automatically and appropriately in their communication, incorporating them into their existing vocabulary and language skills (Al-Habsi et al., 2021).

Previous research has demonstrated that vocabulary acquisition is critical for language learning and development (Hulstijn & Laufer, 2001). A large and varied vocabulary is associated with high levels of reading comprehension and overall language proficiency (Webb & Nation, 2017). Effective vocabulary instruction involves combining explicit teaching and opportunities for learners to encounter and use new words in a variety of contexts. This can include activities such as reading, listening, speaking, and writing, as well as the use of a range of teaching techniques, such as vocabulary drills, context-based activities, and word-learning strategies (Hulstijn & Laufer, 2001).

In summary, vocabulary acquisition is a multifaceted process that involves exposure to new words, the active processing and internalization of their meanings, and the integration of those words into a learner's existing language skills. It is an essential component of language learning and development.

Chapter 3

Study Method and Procedure

This chapter discusses the methodology and procedures employed by the study, including the research design, study sample, instrument, pilot study, and procedures.

3.1. Research Design

This study employed a quantitative, experimental design. As Creswell (2012) explained, "experimental research [tests] the independent variable(s) to determine whether it influences a dependent variable(s)" (p. 295). This approach is used to examine the relationship between cause and effect, and to validate a hypothesis. Table 3.1 shows that;

Table 3.1   Experimental design

	Pre-test	Treatment	Post test
Experimental group	✓	✓	✓
Control group	✓		✓

3.2. Study Sample (Participants)

The study sample consisted of 47 first-grade students, including both boys and girls, from a primarily school in Unizah, Saudi Arabia. As shown in Table 3.2, they were divided into four groups, two experimental groups and two control groups. All four groups took the same pre-test to measure the vocabulary acquisition of the sample at the outset of the study. The students, who were aged between six and seven years, were selected using simple random selection. The study was conducted during the third term of the school year 1444/2023.

Table 3.2. Distribution of Students in the Control and the Experimental Groups

Group	Male	Female
Control	13	10
Experimental	12	12
Total	25	22

Pilot study:

For the exploratory phase of the research, the researcher created a test to assess the vocabulary of first-grade pupils (boys and girls). The experiment was carried out with 39 male and female students from the research community. The test questions were selected from the British Council's website. The assessment consisted of three exercises as follows:

1. Draw a line to connect the image with the word

(With pictures and vocabulary).

2. Organize the days of the week

(The days of the week are listed; students must arrange them).

3. Match the following

(There are a variety of pictures, such as a sad face, number 2, an apple, and sunny weather, and students have to match each phrase with the appropriate picture).

The findings revealed the pupils' grasp of terminology was lacking.

3.3. Research Variables

Due to the study's objectives, and the nature of the approach used, the study's variables were as follows:

Independent variable: Teaching using Lingokids;

Dependent variable: The acquisition of English language vocabulary.

3.4. Research Tool

The research tool employed for this study was the English vocabulary acquisition test, which was employed according to the following steps:

1. Target determination of testing: Recognize the effectiveness of teaching using Lingokids for acquiring English vocabulary by first grade primary students;

2. Verification of test honesty: After the test was prepared in its preliminary form, it was presented to a group of arbitrators who specialized in teaching English (see Annex 1), in order to seek their views of the clarity of its language formulation and the appropriateness of the test for the subject under consideration. The necessary adjustments were made according to their views and suggestions, and the tool was finalized;

3. Verification of test stability: The test was applied to a survey sample consisting of 10 students from outside the research sample, in order to verify its relevance. Cronbach's Alpha coefficient was calculated using Statistical Package for the Social Sciences (SPSS) software, as shown in Table 3.3:

Table 3.3 Cronbach's Alpha

variable	Cronbach's Alpha
English Vocabulary Acquisition Test	0.90

The results in the table indicate, To the extent that the total stability factor of the test has reached(0.90) Such values are acceptable for the purposes of the study; It is reassuring that the test has an acceptable degree of stability.

Research Materials

Pre- and post-tests were used to measure the students' performance, before and after the treatment, and were assessed by curriculum specialists. The relevant Lingokids contents were then presented to the participants on an iPad, and they were allowed to engage in playing and responding to the activities over the course of 12 days. The focus of the content was vocabulary activities related to animal subjects, corresponding to Unit 1 in their book (We Can 1). The activities included, for example, matching the animals, and seeking the hidden letters for the animal, as shown in Figures 3.1-3.4.
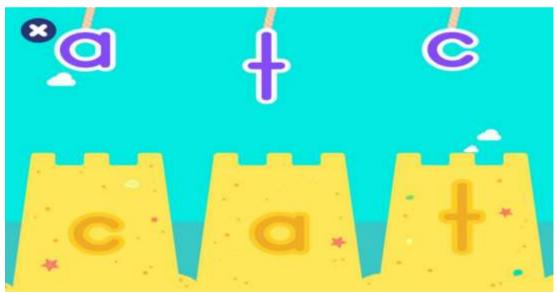
Figure 3.1.

Figure 3.2.

Figure 3.3.

Figure 3.4.

Materials

The materials employed by the study were iPads, TV screens, projector, loudspeaker.

Parity of the Groups

In order to ascertain the parity of the experimental and control groups in the English vocabulary acquisition test, which was designed to determine the initial vocabulary level of the research sample, a pre-test was employed with the groups, following the verification of its relevance and consistency. Table 3.3 presents a summary of the findings, recommendations, and suggestions.

Table 3.4. Results of the Independent Sample T-Test for the pre-test, showing the differences between the groups' average scores.

As shown in Table 3. 4, there was no statistical difference at the indicative

Variable	Group	N	Mean	Std. Deviation	df	T	Sig
English Vocabulary Acquisition Test	Experimental	24	6.92	2.041	45	0.791	0.433
	Control	23	6.30	3.169			

level ($\alpha \geq 0.05$) between the average scores of the experimental group and the control group in the pre-test. The T value was 0.791, which was not statistically relevant at an indicative level (0.433). It was also greater than the indicative level ($\alpha \leq 0.05$), in terms of the parity of the experimental and control groups.

Table 3.5 presents the results of the independent sample T-test for the pre-test, showing the difference between the average of the students' grades in the pre-test, by type (male/female), in both groups, the experimental and the control.

Table 3.5. Independent Sample T-Test results for the pre-test, showing the difference between the average of the students' grades, by Type (Male/Female) for the Experimental and Control Groups.

Variable	Group	Gender	N	Mean	Std. Deviation	df	T	Sig
English Vocabulary Acquisition Test	Experimental	Male	12	6.33	1.670	22	1.432	0.166
		Female	12	7.50	2.276			
	Control	Male	13	5	1.732	21	1.794	0.087
		Female	10	6.60	2.547			

As shown in Table 3.5., there was no statistical difference at the indicative level ($\alpha \geq 0.05$) among the averages of the experimental group's scores, by type (male/female) in the pre-test. The T value was 1.432, which was not statistically relevant at an indicative level (0.166). It was greater than the indicative level ($\alpha \leq 0.05$), indicating the parity of the experimental group, by type (male/female).

As shown in Table 3.5., there was no statistical difference at the indicative level ($\alpha \geq 0.05$) among the averages of the Control group's scores, by type (male/female) in the pre-test. The T value was1.794 , which was not statistically relevant at an indicative level (0.087). It was greater than the indicative level ($\alpha \leq 0.05$), indicating the parity of the Control group, by type (male/female).

3.5. Research Procedures

The following procedures were followed:

1. Approval was obtained from the Committee of Research Ethics at Qassim University, Saudi Arabia;
2. The study population was determined;
3. The study sample was randomly selected;
4. The pre-test was applied;
5. The study sample was into four groups: two experimental groups (boys and girls) and two control groups (boys and girls);

6. The independent variable (Lingokids app) was employed with the experimental groups;
7. The post-test was conducted;
8. The data was analysed;
9. The data was interpreted according to study's research questions and hypothesis;
10. The findings were discussed and recommendations provided.

3.6. Statistical Methods

In order to achieve the research objectives, SPSS was employed to analyse the research data, as follows:

1. Cronbach's Alpha coefficient was employed to verify the consistency of the English vocabulary acquisition test;
2. An independent sample T-test was employed to identify the parity of the two groups, and to test the validity of the assumptions in the remote application of the English vocabulary test.

Chapter 4

Presentation and Discussion of the Findings

This chapter presents the research findings, addresses the study's research questions, tests its hypotheses, and interprets the findings in the context of the theoretical framework, and previous studies in the field.

4.1. Presentation of the Findings

4.1.1. Presentation of Findings Regarding the First Research Question

In order to address the first question: How effectively does teaching using Lingokids support the English vocabulary acquisition of first-year primary EFL students in Saudi Arabia?, the impact of employing the app on first-grade students' vocabulary learning and acquisition was tested. As shown in Table 4.1, the instrument's validity was tested using an independent sample T-test, and the

Variable	Group	N	Mean	Std. Deviation	df	T	Sig
English Vocabulary Acquisition Test	Experimental	24	12.71	2.440	45	9.232	0.000
	Control	23	6.48	2.172			

averages calculated, along with the standard deviations and values. In order to determine the difference between the groups involved in the study, The following table shows the results:

Table 4.1. Results of the Independent Sample T-Test, showing the difference between the two groups' average scores in the remote testing.

As shown in Table 4.1., there was a statistical difference at the indicative level ($\alpha \geq 0.05$) between the average scores of the experimental group and the control group in the remote testing. The average of the pilot group scores showed that the T value was 9.232, which was statistically significant (0.000). It was below the indicative level ($\alpha \leq 0.05$), denoting acceptance of the hypothesis that the Lingokids app is an effective tool for teaching English vocabulary to first grade students.

4.1.2. Presentation of the Findings Regarding the Second Research Question

The second research question asked, Are there statistically significant differences between boys and girls in the study sample regarding their acquisition of English vocabulary? As shown in Table 4.2., in order to verify the validity of

Variable	Group	Gender	N	Mean	Std. Deviation	df	T	Sig
English Vocabulary Acquisition Test	Experimental	Male	12	11.42	2.109	22	3.015	0.006
		Female	12	14.00	2.089			
	Control	Male	13	5.23	1.589	21	4.086	0.001
		Female	10	8.10	1.729			

the hypothesis, an independent sample T-test was conducted to calculate the relevant average, standard deviation, and value. In order to determine the difference, The following table shows the results:

Table 4.2 shows the results of the independent sample T-test, presenting the difference between the students' average grades, by type (male/female), for the experimental and the control groups

The findings were s*tatistically differentiated at the indicative level (α ≥ 0.05)*, in terms of the *averages of the experimental group*'s *scores,* b*y type (male/female)*, i*n favour of* the *females,* with an *average* of *14*, while it was *11.42* for the males. *The* T *value* was *3.015*, which was *statistically significant (0.006). It* was *below the indicative level (α ≤ 0.05)*, indicating *the rejection of* the *zero imposition and the acceptance of the alternative imposition,* namely that there were s*tatistically significant* gender *differences* in the *first-grade* students, in terms of their *English vocabulary* acquisition. As shown in Table 4.2., there was a statistical difference at the indicative level (α ≥ 0.05) between the average control group scores, by type (male/female) in favour of the females, who achieved an arithmetic average of 8.10, while the average of the males was 5.23. The T value was 4.86, which was statistically significant (0.001), It was below the indicative level (α ≤ 0.05).

4.2. Discussion of the Findings
4.2.1. Discussion of the Findings Regarding the First Research Question

This study found that there were significant differences in the experimental group's post-test performance, compared with that of the pre-test, indicating that using Lingokids improved the participants' ability to learn English vocabulary. This supported the findings of Setiyaningsih (2023), who investigated the influence of teaching using Lingokids on vocabulary acquisition, and reported that the students who engaged with Lingokids significantly outperformed those in the control group who did not use the app in their vocabulary learning. Similarly, Fadhli (2018) found that using Lingokids was able to enrich and encourage students to learn using a variety of educational activities, positively impacting their learning.

4.2.2. Discussion of the Findings Regarding the Second Research Question

This study's second research question concerned the potential difference between genders, in terms of their ability to learn vocabulary. The findings revealed that there was a significant difference between the genders, with the female students better able to learn vocabulary and exhibiting a greater desire to do so than the male participants; thus, the female students outperformed their male peers significantly in vocabulary acquisition. This was consistent with findings reported by Maccoby and Jacklin (2021), who found that their female participants exhibited better lexical knowledge than males. Similarly, Driessen and van Langen (2013) reported that the females in their study were more effective than the males at learning languages.

Notably a key limitation of the present study was its small sample size, namely 47 students, which could limit the generalizability of the findings to a broader population. While statistically significant results were obtained, caution should therefore be exercised when generalizing these findings to larger populations. Nevertheless, the findings of this study supported the previous evidence of the role of gender in learning, and may provide a foundation for future investigations of this matter.

Chapter 5
Summary of Research Findings
Recommendations and Proposals

This chapter summarizes the findings of this study, outlining a number of recommendations and suggestions for future research in this field.

5.1 Summary of Research Findings

This study found a statistically significant difference at the indicative level ($\alpha \geq 0.05$) between the average scores of the experimental group, who used Lingokids to improve their ability to learn English vocabulary, and the control group. The average score of the pilot group showed a T value of 9.232, which was statistically significant (0.000). It was below the indicative level ($\alpha \leq 0.05$), indicating acceptance of the hypothesis that the Lingokids app is an effective tool for teaching English vocabulary to first grade students. Moreover, there was a statistically significant difference at the indicative level ($\alpha \geq 0.05$) between the average control group scores, by gender (male/female), in favour of the females. There was also a statistically significant difference at the indicative level ($\alpha \geq 0.05$) between the averages of the experimental groups' scores, by gender (male/female), in favour of the females. Therefore the zero imposition was rejected and the alternative imposition accepted, namely that there were statistically significant gender differences in the first-grade students, in terms of their success with regard to English vocabulary acquisition.

5.2. Research Recommendations

1. It is recommended that teachers use Lingokids, as it is an effective app for developing first-grade students' vocabulary acquisition;
2. It is recommended that Lingokids be integrated into the Saudi curriculum on the Madrsati platform, as an enhancement programme for first grade students;
3. Since the literature review conducted for this study revealed that the subject of vocabulary acquisition by young students has rarely been investigated in the Saudi context, it is recommended that future research focuses on primary age students' means of learning languages, especially their vocabulary skills;
4. Future researchers should consider investigating the role of gender in language learning.

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