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Department of Foreign Languages**

**INVESTIGATING (L2) EFL STUDENTS' PERCEPTION TOWARD THE
USE OF DUOLINGO APPLICATION IN LEARNING ENGLISH
VOCABULARY AT DJILALI BOUNAAMA UNIVERSITY**

Dissertation Submitted to the Department of Foreign Languages in Candidacy for the LMD
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Declaration

I hereby declare that the substance of this dissertation is the result of my investigation due reference of acknowledgment is made when necessary to the whole of other researchers.

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DEDICATION

Driassa Akila:

I dedicate this work to:

My mother Fatima and my father Ahmed

My husband Karim for his support emotionally & financially

My little baby Amira

All members of my husband's family

All My brothers and their wives

All My sisters

All My nephews

My best friends' chahrazed and Hayet

My close friends Sarra, Soumiya and Roumaïssa

All the extended friends and colleagues in the faculty of letter and languages

DEDICATION

Bouzidi chahrazed

I dedicate this work to

My beloved father Mohamed and my beloved mother

My husband Mohamed who has always supported me and pushed me

Forward

To my beloved sons, Abd el rahmane - Hafsa - Abd el djalile

My dear sister Nabila

All my brothers: Riyadh - Djilali - Kheireddine - Abd el Azize

My best friends Akila and Hayet

For each member of the faculty of Letter and languages, English

Department

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ABSTRACT

The advancement in technology has affected many fields of life and Education was the most prominent among them, by introducing new methods in teaching and learning process depending on Mobile Learning Applications. In this study we focus on Duolingo Application as a free and easy to use application on mobile devices. Many students found the function of Duolingo Application is enjoyable and interesting. This research aims at investigating the perception of (L2) EFL students towards learning English vocabulary through The Duolingo Application in the Faculty of Letters and Languages at Djilali Bounaama University in Khemis Miliana as well as to find out the most effective strategy uses by students to learn English Vocabulary, during the second semester of the academic year 2021/2022. The data gathers from the quantitative research methodology (closed –ended questionnaires for 120 students). Concerning data analysis, the computer program Statistical Package for Social Sciences (IBM SPSS) is used to analyze the numerical data obtained from the closed-ended items of the questionnaire. The results of the study have determined that the majority of L2 students have positive perception towards using Duolingo in learning vocabulary. Moreover, the outcomes have revealed that a set of factors, such as “easiness and usefulness of Duolingo”, “the application for free anytime anywhere” and “students’ awareness to improve their level in English”, have influenced the students to accept this application. In addition, students use Duolingo as a complimentary strategy besides face to face learning.

Keywords: Duolingo, Perception, English vocabulary learning, Mobile Learning Application.

Résumé

L'avancement de la technologie a touché de nombreux domaines de la vie et l'éducation était le plus important d'entre eux, en introduisant de nouvelles méthodes dans le processus d'enseignement et d'apprentissage en fonction des applications d'apprentissage mobile. Dans cette étude, nous nous concentrons sur l'application Duolingo en tant qu'application gratuite et facile à utiliser sur les appareils mobiles. De nombreux étudiants ont trouvé la fonction de l'application Duolingo agréable et intéressante. Cette recherche vise à étudier les perceptions des étudiants EFL (L2) vis-à-vis de l'apprentissage du vocabulaire anglais via l'application Duolingo à la Faculté des Lettres et Langues de l'Université Djilali Bounaama à KhemisMiliana ainsi que pour découvrir la stratégie la plus efficace utilisée par les étudiants pour apprendre Vocabulaire anglais, au cours du second semestre de l'année académique 2021/2022. Les données proviennent de la méthodologie de recherche quantitative (questionnaires fermés pour 120 étudiants). Concernant l'analyse des données, le programme informatique Statistical Package for Social Sciences (IBM SPSS) est utilisé pour analyser les données numériques obtenues à partir des items fermés du questionnaire. Les résultats de l'étude ont déterminé que la majorité des étudiants de L2 ont une perception positive de l'utilisation de Duolingo dans l'apprentissage du vocabulaire. De plus, les résultats ont révélé qu'un ensemble de facteurs, tels que "la facilité et l'utilité de Duolingo", "l'application gratuite n'importe quand n'importe où" et "la sensibilisation des étudiants à améliorer leur niveau en anglais", ont incité les étudiants à accepter cette application. En outre, les étudiants utilisent Duolingo comme stratégie complémentaire en plus de l'apprentissage en face à face.

Mots-clés: Duolingo, Perception, Apprentissage du vocabulaire anglais, Applications d'apprentissage Mobile.

ملخص

أثر التقدم التكنولوجي على العديد من مجالات الحياة وكان التعليم أبرزها، من خلال إدخال أساليب جديدة في عملية التدريس والتعلم بالاعتماد على تطبيقات التعلم المتنقلة. في هذه الدراسة، نركز على تطبيق دولينجو كتطبيق مجاني وسهل الاستخدام على الأجهزة المحمولة. وجد العديد من الطلاب أن وظيفة تطبيق دولينجو ممتعة ومثيرة للاهتمام. يهدف هذا البحث إلى التحقق من تصور طلاب اللغة الإنجليزية كلغة أجنبية (L2) اتجاه تعلم مفردات اللغة الإنجليزية من خلال تطبيق دولينجو في كلية الآداب واللغات في جامعة الجبلالي بونعامة في خميس مليانة بالإضافة إلى اكتشاف أكثر الإستراتيجيات فعالية التي يستخدمها الطلاب لتعلم مفردات اللغة الإنجليزية خلال الفصل الدراسي الثاني من العام الجامعي 2021/2022. يتم تجميع البيانات من منهجية البحث الكمي بتوزيع استبيانات مغلقة ل 120 طالب. فيما يتعلق بتحليل البيانات، يتم استخدام الحزمة الإحصائية لبرنامج الكمبيوتر للعلوم الاجتماعية (IBM SPSS) لتحليل البيانات الرقمية التي تم الحصول عليها من العناصر المغلقة للاستبيان. حددت نتائج الدراسة أن غالبية طلاب المستوى الثاني لديهم تصور إيجابي اتجاه استخدام دولينجو في تعلم المفردات. علاوة على ذلك، كشفت النتائج أن مجموعة من العوامل، مثل "سهولة وفائدة استخدام دولينجو" التطبيق المجاني في أي وقت وفي أي مكان" و "وعي الطلاب لتحسين مستواهم في اللغة الإنجليزية" ، قد أثر على الطلاب لقبول هذا التطبيق. بالإضافة، يستخدم الطلاب دولينجو كاستراتيجية مجانية إلى جانب التعلم وجهاً لوجه.

الكلمات المفتاحية: دولينجو، تصور، تعلم مفردات اللغة الإنجليزية، تطبيقات التعلم عبر الهاتف المحمول.

List of Abbreviations and Acronyms:

ICT: Information and communication technology

EFL: English as a foreign language

L2: Second Licence

MLA: Mobile Learning Applications

Apps: Applications

SPSS: Statistical Package for Social Sciences

%: percentage

H 1: Hypothesis one

H2: Hypothesis two

Q: question

Qs: questions

List of Tables

| | |
|---|----|
| Table4. 1 : The total number of L2 participants..... | 49 |
| Table4.2: The total participants 'age groups..... | 49 |
| Table4.3:students'interest in learning English..... | 50 |
| Table4.4: The level of L2 EFLstudents in English | 50 |
| Table4. 5: Cross table summarized section one | 51 |
| Table4. 6: students practice english through website,CD-ROMs,etc | 52 |
| Table4. 7: The use of students'perception towards the use of electronic dictionaries and encyclopedias | 52 |
| Table4. 8 :L2 students' use of smartphone applications for learning English | 53 |
| Table4.9 : students use mobile applications to practice English..... | 53 |
| Table4. 10 :students'opinion about learning English through the use of mobile applications . | 54 |
| Table4. 11: students play games developing for learning | 54 |
| Table4. 12: students know the Duolingo app..... | 55 |
| Table4. 13: EFLstudents view about the Duolingo app | 55 |
| Table4. 14: students view about learning vocabulary through Duolingo | 56 |
| Table4.15: students view about the advantages of duolingo in learning vocabulary..... | 58 |
| Table4. 16: Most of learners feel that duolingo helps them to discover new ideas ,have better understanding ,mastring vocabulary ,and applicative to use..... | 59 |
| Table4. 17: Duolingo has adventages in making learners interested to learn vocabulary (active learner) | 59 |
| Table4. 18: Duolingo is boring, difficult, lessuseful and expressive | 60 |
| Table4. 19: learning English by using Duolingo allows students to apply their english skills in their daily life | 62 |
| Table4.20: The most effective learning strategies | 62 |

List of Figures

| | |
|--|----|
| Figure2.1: Login view | 31 |
| Figure2. 2: Profile Register Image | 31 |
| Figure2. 3: Selecting language | 31 |
| Figure2.4: Pick a goal..... | 32 |
| Figure 4.1: students' frequency mobile application use to practice English..... | 54 |
| Figure 4.2: pie chart showing students'view about Duolingo App | 56 |
| Figure 4.3: Pie chart illustrates students'view about learning vocabulary through Duolingo. | 57 |
| Figure 4.4: Duolingo has advantages in making learners interested to learn vocabulary (active learner) | 60 |
| Figure 4.5: Duolingo is boring, difficult, lessuseful and less expressive..... | 61 |
| Figure 4.6: The app helps me to memorize the vocabulary | 61 |
| Figure 4.7: The most effective learning strategies | 63 |

Table of Contents:

| | |
|--|----|
| DEDICATION | 2 |
| ACKNOWLEDGEMENT | 4 |
| ABSTRACT | 5 |
| Résumé | 6 |
| ملخص | 7 |
| List of Abbreviations and Acronyms: | 8 |
| List of Tables..... | 9 |
| List of Figures | 10 |
| Table of Contents: | 11 |
| 1.1. Background of the Study | 14 |
| 1.2. Statement of the Problem | 15 |
| 1.3. Rationale of the Study | 15 |
| 1.4. Aim of the Study..... | 16 |
| 1.5. Research Questions..... | 16 |
| 1.6. Hypotheses: | 17 |
| 1.7. Research Methodology and Tools | 17 |
| 1.8. Definition of Key Terminology:..... | 17 |
| 1.9. Structure of the Dissertation | 18 |
| Chapter Two, Literature Review | 21 |
| Overview | 21 |
| 2.1. The Nature of Vocabulary: | 22 |
| 2.1.1. Definition of Vocabulary: | 22 |
| 2.2. Types of Vocabulary:..... | 23 |
| 2.3. Perception: | 26 |
| 2.4. Mobile Learning Apps: | 28 |
| 2.5. The Nature of Duolingo Application: | 28 |
| 2.6. Duolingo and English vocabulary learning: | 35 |
| Chapter Three: The Empirical Study | 40 |
| 3.1. Research Method | 40 |
| Introduction..... | 40 |
| 3.1.1. Basic Method of Research:..... | 40 |
| 3.1.1.1. Quantitative Approach: | 40 |

| | |
|--|----|
| 3.1.2. The Research Objectives and Questions | 41 |
| 3.1.3. Population and sampling | 41 |
| 3.1.4. The Research Design (Tools of Data Collection) | 43 |
| 3.1.5. Procedures of data collection: | 44 |
| 3.1.6. Quantitative Analysis:..... | 45 |
| 3.1.7. Research Ethics:..... | 45 |
| Conclusion | 46 |
| Chapter Four: Findings and Discussion | 48 |
| Introduction: | 48 |
| 4.1. Presentation the results of the questionnaire | 48 |
| 4.1.1. The Analysis of questionnaire: | 48 |
| 4.2. Discussion | 63 |
| Chapter Five: Conclusion..... | 70 |
| General Conclusion: | 70 |
| 5.1. Summary of the main findings:..... | 70 |
| 5.2. Some Suggestions and Recommendations or Further Researches: | 72 |
| References | 74 |
| Appendix A Consent Form..... | 78 |
| Appendix B: information Sheet..... | 79 |
| Appendix C | 80 |
| Appendix D | 84 |
| Appendix E..... | 86 |
| Appendix F Time table & the permission sheet for making research | 89 |

CHAPTER ONE:

INTRODUCTION

Chapter One: Introduction

1.1. Background of the Study

Recent studies have shown that learning English as a foreign language has become Popular among many different age groups, in fact the learning methods adapted by students in EFL Classroom has shifted from browsing books, dictionaries and visiting libraries to a click on the button of their smartphone applications. Thanks to technology which facilitated the learning process very helpful because it gives the learners the ability to pronounce words, sentences correctly and simultaneous translation into several languages. Moreover, it makes the learning process more enjoyable through interesting games such as Duolingo applications. Duolingo deliberately carries the concept of learning while playing in order to make it more interesting and easier to be used by people of all ages. Duolingo also provides a variety of other languages such as: Spanish, French, Italian, German, Indonesian, Portuguese and Dutch including English. In fact, students found its function enjoyable and easier to be used on their mobile device, so they can learn all the language options provided by Duolingo. These Applications have different kinds of activities which help the learner to memorize words with their correct pronunciation through interesting flash cards and sounds. Also they are able to use it anytime and anywhere.

Duolingo has about 120 million users across the world a large number which made many researchers even more excited to try it and find out what is the recipe for success. Duolingo was a hit even before its official launch. In November 2011, the team launched a private beta and within a month 300, 000 people had signed up on a waitlist over 10 million People downloaded the application in the first 12 months. Luis von Ahn, who already had success selling two businesses to Google in his 20s, saw an opportunity to turn the language learning model

on its head. Instead of having to pay-per-hour or subscribe, Duolingo would be free to all, making people from all background learn a new language. Von Ahn (2014) said:

There are 1.2 billion People learning a foreign language and two thirds of those people are learning English so they can get a better job and learn more. The result of previous research showed that the use of Duolingo in teaching English have many positive effects on the students, such as: make the students more motivated in learning.

1.2. Statement of the Problem

In this study, we will shed light on the perceptions of (L2) EFL students towards learning English vocabulary through The Duolingo Application, in The Faculty of Letters and Languages at Djilali Bounaama University in Khemis Miliana, as well as to find out the most effective strategy uses by students to learn English vocabulary, during the second semester of the academic year 2021/2022. The data gathered from questionnaire for (120) students.

1.3. Rationale of the Study

This research is important because we are always working on figuring out the best ways to learn foreign languages through science, and we live in a technological world while most students are excessively using their own smartphone all times and places. However, during the Pandemic of Covid_19 where the number of classes has been reduced and the system of cohorts and distance education has been resorted to blended learning; students noticed their need for enough vocabulary to communicate effectively in target situations. This thing leads those students to started learning by themselves to improve their knowledge to become proficient in using foreign language. That is why; they give more interesting to the use of different learning ways on their mobile learning applications, especially Duolingo free Application. At the end of this study, the researchers will hopefully be able to investigate the

perceptions of (L2) EFL students towards learning English vocabulary through The Duolingo Application in the Faculty of Letters and Languages at Djilali Bounaama University in Khemis Miliana, as well as to find out the most effective strategy used by students improves English Vocabulary Learning for (L2) EFL student, during the second semester of the academic year 2021/2022. The results of the study can have some useful pedagogical implications. The finding could lead the teachers as well as the learners to know more about the benefits of using this application such as the development of EFL student vocabulary to communicate effectively.

1.4. Aim of the Study

This study aims at:

1. Investigating the perceptions of (L2) EFL students towards learning English vocabulary through The Duolingo Application in the Faculty of Letters and Languages at Djilali Bounaama University in Khemis Miliana.
2. Finding out the most effective strategy uses by students to learn English Vocabulary.

1.5. Research Questions

1-What are the perceptions of (L2) EFL students towards learning English vocabulary through The Duolingo Application in the Faculty of Letters and Languages at Djilali Bounaama University in Khemis Miliana?

2-Which strategy is the most effectiveness for students to learn English vocabulary: Face to face learning or The Duolingo application?

1.6. Hypotheses:

In the light of the research questions, it is hypothesized that:

- H1: L2 EFL Students have positive perception towards the use of Duolingo in learning Vocabulary.
- H2: The advantages of Duolingo Application “for free any time any where” make it a successful learning strategy.

1.7. Research Methodology and Tools

This study is quantitative research carried out in the Faculty of Letters and Languages at Djilali Bounaama University in Khemis Miliana. We used 20 close ended questionnaires which distributed to a random sample of participants “one hundred twenty (120) students” that were from level (L2). The numerical data gathered from the questionnaire are analyzed through the Statistical Package of Social Sciences (IBM SPSS V25).

1.8. Definition of Key Terminology:

Duolingo: Free language learning application to assist second language learning.

Perception: Opinion or away of thinking about some thing.

English vocabulary learning: Building and acquiring blocks of vocabulary in English language.

Mobile Learning Applications: new way of learning depend on mobile devices anywhere and everywhere.

1.9. Structure of the Dissertation

Before engaging in any experimental work, we give some theoretical foundations meant for establishing concepts needed for methodological and interpretative decisions deals with five chapters. The current dissertation consists of five chapters; Chapter one (General Introduction) which covers the background of study, statement of the problem, key research questions, research aims and the research rational. The purpose of this chapter is to provide a solid foundation and encourage readers to continue on to the main parts of our research.

Chapter two (Review of The Literature) aims to review studies related to the current research. It has three main sections; the first section is devoted to the nature of vocabulary (definitions of vocabulary, types of vocabulary, the problem of learning vocabulary, the purpose of teaching and learning vocabulary, students' perception towards learning vocabulary by Duolingo). In the second section we shed light on mobile learning application by given various definitions to it then introducing Duolingo Application: the nature of its (definitions, features, purposes, types of exercises, advantages). The third section includes Duolingo and English vocabulary learning, the procedure of English vocabulary learning in Duolingo, the use of Duolingo apps to improve English vocabulary learning.

Chapter three (The Empirical Study) contains one main section. This section describes the methodology for our study; it provides information regarding the research objectives and questions, the participants, the sample, the research tools, and the data collection procedure.

Chapter Four (key Findings and discussion) contains two main parts, Part one: Presentation of the results and Part two (Discussion) discusses and interprets the data gathered then presents the key findings.

Lastly, chapter Five (conclusion) presents general conclusion, summary of the main findings, key research answers contribution, limitation and suggestion that the researcher got after conducting the research.

CHAPTER TWO:

LITERATURE

REVIEW

Chapter Two, Literature Review

Overview

The rapid growth of technological devices offered many changes in the educational approach. In which it shorted the effort, closed the distances and brought education to students' doorsteps, mention that students use technology primarily in their daily lives and find it valuable, easy, and motivating to the learning process, including learning a foreign language (Cakir, 2016). Learning English as a foreign language has become very important in the modern world; by using Mobile Learning Applications (MLA) as an integral part of our lives. In fact, the use of Duolingo applications to learn foreign languages have many advantages and drawbacks, which are used for different purposes; and the educational field is the major part included in these applications.

Vocabulary is the basic component that must be mastered by learners in order to have good English proficiency; the learners must know the basics of language and develop their skills like listening, speaking, reading, and writing. Richard (2002) states that vocabulary is a core component of language proficiency and provides much of the basics on how well learners speak, listen, read, and write without an extensive vocabulary and strategies for acquiring new words, from making use of language learning opportunities around them such as listening to the radio, listening to native speakers, using the language in different contexts, reading, or watching television. Davis (2006) highlights the role of technology in different settings, influencing our lives and educational contexts. Thus we cannot deny the role of technology in the current and future context of language learning mediated through the internet and mobile devices. Furthermore, the lack of vocabulary can lead to many difficulties in understanding the meaning of words, pronouncing words and making the sentence in English. These can show the less of confidence of students because

they still feel embarrassed if they are wrong. In this case, Learning English language will be challenging if learners do not have enough vocabulary, that is why some studies pay special attention to vocabulary, by suggesting some methods and strategies in order to come up with an appropriate method promote vocabulary acquisition. Yildirim (as cited in Donmus, 2010, p.1498) believes that “Educational games are activities that provide students the opportunity to reinforce the previous knowledge by repeating it in a more comfortable environment”. In other words, vocabulary acquisition occurs in a relaxed, motivating and satisfactory atmosphere where the learner focuses on the environment of new words and their contextual usage. There are some several factors may be the key such as: Create an environment with similar pleasant characteristics as games, paintings, humorous behaviors.

2.1. The Nature of Vocabulary:

2.1.1. Definition of Vocabulary:

Vocabulary is a very important aspect of language, it is based on the study of the meaning of words and the way words are used appropriately in communication and interaction with others also is considered as an integral part of language because learners cannot read, write, listen and speak a foreign language without having enough knowledge of vocabulary.

According to Hornby (2009,p.1707) "Vocabulary is (1) the total number of words which (with rules for combining them) make up language, (2) words known too, or used by a person, in trade profession, etc." Moreover, the concept of vocabulary was proposed by Richard in his Curriculum Development in Language Teaching (2003, p.4) that" Vocabulary is one of the greatest things linguists turned their attention to. Vocabulary (English: vocabulary) is a set of English words that are known by a person or other entity to declare an activity, objects,

properties, and so forth. In simple words, Nunan (1991, p. 117) says that adequate vocabulary is a key ingredient in the success of using a second language. Without mastering vast vocabulary, language learners cannot both produce and receive the target language. Similarly, Richard and Renandya (2002, p. 255) state that vocabulary is a core component of language proficiency and provides much of the basis for how well learners speak, listen, read, and write. This means vocabulary is the core of any language and learner may have serious trouble in understanding the message without knowledge of the key vocabulary in a text. Also, the Oxford Advanced Learner's Dictionary (2008, p.1662) defines vocabulary as "all the words that a person knows or uses".

Zahedi & Abdi (2012) in their writing research also stated that one of the components to master English as a foreign language is vocabulary mastery. It means that the students have the ability in understanding and using words and meaning, vocabulary also plays an important role in English language skills that is why some studies pay special attention to vocabulary, and various different scholars have studied methods and strategies in order to come up with an appropriate method promote vocabulary acquisition.

2.2. Types of Vocabulary:

Vocabulary can be divided into two types, the first one is: Receptive and productive vocabulary while the second one is: active and passive vocabulary. These two types can be defines as the following:

2.2.1. Receptive Vocabulary and Productive Vocabulary:

Receptive vocabulary is defined as the vocabulary type's reader encounters during reading and listening. According to Lauferand Goldstein (2004) as cited in Dakhi & Fitria (2019) receptive vocabulary was associated with the listening and reading. Meanwhile,

productive vocabulary refers to the set of words used to produce the messages which means speaking and writing are the basic skills in productive vocabulary. According to Jamalipour and Farahani (2012) the vocabulary knowledge positively predicted the reading comprehension.

2.2.2. Active Vocabulary and Passive Vocabulary:

Active vocabulary is the words that learners understand and use in speaking or writing also is defined as the words by which listeners and writers usually use as they completely understood. Yet Laufer (1998) as cited in Dakhi & Fitria (2019) in his research divided them into two subgroups, namely controlled active and free active. On the other hand, passive vocabulary is defined as the word that not completely understood, so that they are infrequently used when writing and speaking. According to Laufer and Parabakht (2008) as cited in Dakhi & Fitria (2019) the passive vocabulary was acquired more than the active ones.

2.2.3. The Problem of Learning Vocabulary:

There are several strong reasons why mastering vocabulary can be an important component of a language course which needs to be carefully planned. Muhibbin Syah (2005, p.132) classifies two factors that make learners facing problems in learning vocabulary; individual factors and social factors. The individual factor is the factor which comes from the Learners. It consists of motivation, growth, attitude and aptitude while, the Social factors are the factors which come from the learners'surrounding, such as: family, teacher, environment and facilities. In general, many problems faced by students in learning a target language (English) especially in mastering vocabulary. First, they lack vocabulary so they cannot understand the meaning from what they read and listen. This means they are failure in receiving and producing a message in this language interaction. Moreover, sometimes they are also confused in using the words because they do not know the function of the words they know.

The lack of vocabulary can make it difficult for students to master all of their skills in English. Second, students learn based on what their teacher teaches them. If their teacher asks, they do. If not, they do not. It happens maybe because there is no motivation for them to learn English well, they need high motivation. In addition, student should be aware about the importance of learning English language, in order they became competent on it and they need also personal efforts “self-motivation”.

Hinson and Brown (2001) defined motivation as an important component or factor in the learning process. Learning and motivation have the same importance to achieve something. Learning makes learners gain new knowledge and skills while motivation pushes or encourages them to go through the learning process; meanwhile motivation is defined as the condition which can initiate, guide and maintain human behaviors until a goal has been reached. The last, it is about the media which is used by teachers. Commonly, the use of ICT’s by teacher in the classroom (media) should be interesting to students. Some teachers prepare simple media for students and students feel bored with it. If they are bored, they will not focus on the learning process. As a result, the teaching learning process cannot take place in this case. Beside the ICT’s tools teacher should be eclectic in designing the course and the activities which make learners active as well as motivated.

2.2.4. The Purpose of Teaching and Learning Vocabulary:

The purpose of teaching vocabulary is to enable learners to be able to understand and elicit foreign words as well as to use words successfully for communicative purposes.

In order to enhance students’ vocabulary; the students can use several technologies. Because in this era, almost all learning systems require the role of technology, and cannot be denied that the presence of technology is able to help develop students’ skills in the English language. To learn something new, people should know the importance of the things that they

want to learn. In this case the importance of learning vocabulary is to help the students in mastering a target language that they learn. Learning a language not only prepares the material of the language but also provides training to students how to use that language, whether oral or written. Many definitions of the purpose of learning vocabulary can be found; Vocabulary learning is pointed out by the Indonesian Ministry of National Education (cited in Muttahidah, 2011). Muttahidah (2011) states that “Basically in language learning, in vocabulary learning, individual words or phrases are not taught but are brought into context, either in terms of topics or in specific domains, as an example. Discourse is about games, but it involves discourse context”and he also said“The enrichment of vocabulary must be continuous and can be achieved through specific domains”. In order to achieve the best learning results, teachers must equip students with vocabulary in specific areas. Since then, each scientific field has used a special vocabulary. From the explanation above, mastering vocabulary is very important in order to understand the language. Students are able to communicate both verbally or orally, to achieve this they must practice language every day in different situations, and the teachers must ensure the component in the teaching learning process is adequate in mastering vocabulary. Therefore, the words related in specific areas to the students are the words around them like nouns, verbs, adjectives and adverbs. In addition, the teacher should be eclectic in selecting and presenting vocabulary in order to fulfill the lack of learner.

2.3. Perception:

Perception can be defined as our recognition and interpretation of sensory information. Also includes our reactions to information. We can think of perception as the process by which we obtain sensory information from the environment and use that information to interact with our environment. "It is true that perception is always greater than this definition immediately implies; because we are "on the fringes", in the context of consciousness, always perceive

other sensory activities than what we say are perceived, especially those that are related to us. Sensory activity related to the inner workings of one's own organism. Fieldman (1999) stated that perception is a constructive process by which we go beyond the stimuli that are presented to us and attempt to construct a meaningful situation .whereas, according to Rahmat (in Arifin, Fuady & Kuswarno, 2017) perception is about objects, events, or relationships obtained by inferring information experience interpreting messages. So, as psychologists describe it, perception like sensation, is an abstract thing refers to the process of perceiving sensory information involves gaining awareness of or understanding it from students' view (Qiong, 2017). In simple words, Perception is a response owned by each individual through the process of sensing.

2.3.1. Students' Perceptions towards Learning Vocabulary by Duolingo: is crucial to achieving feedback from students' learning experiences. In terms of applying Duolingo as a means of learning English, it has to consider what students' experience while learning English utilizes Duolingo application.

2.3.2. Types of Perceptions

According to Irwanto in Shandi's thesis (2020), perception peaks into two; those are positive and negative comprehensions.

a) Positive perception is a perception that describes all knowledge and responses that continue with the trouble to use it. This will be continued by cranking or accepting and supporting the perceived object.

b) Negative perception is a perception that describes all knowledge and responses that aren't in harmony with the object in perception; it'll do with passivity or reject and oppose the perceived object. Therefore, it can be said that perception is both positive and the negative will always affect someone in doing commodity.

2.4. Mobile Learning Apps:

2.4.1. Definition of Mobile Learning:

Mobile learning (m-learning) is a software designed for use by learners on devices, it is a learning ability independent of place and time, which is wireless and ubiquitous (Alexander, 2004; Chen, 2013). Also devices used for mobile learning include cell phones, smartphones, PDAs, and PDAs; tablets, laptops, and personal media players also fall into this category (Kukulska-Hulme&Traxler, 2005). Hence, mobile learning is a new way to access learning content through mobile devices. It is designed to effectively improve educational outcomes as it is designed to focus on the learner-centered learning process and increase access to education and encourage personalized, collaborative and ubiquitous learning. Forevermore, Mobile learning creates an interactive learning environment using the different types of applications available on mobile devices. In addition, Peters (2017) also stated that it was a subset of e-Learning, a step toward making the educational process “just in time, just enough and just for me” (Peters, 2007, p. 15) and he viewed mobile learning as a useful component of the flexible learning model. In 2003, Brown identified mobile learning as “An extension of e-learning” (Brown, 2005, p. 299). Finally, Pea and Maldonado (2006) stated that mobile learning incorporates “transformative innovations for learning futures” (p. 437).

2.5. The Nature of Duolingo Application:

2.5.1. Definition of Duolingo:

Duolingo application is one of the most popular free learning languages applications, created by Luis von Ahn and Severin Hacker (von Ahn, 2013) in November 2011 and it has more than 30 million registered users (Munday, 2016). Many scholars give various definitions to Duolingo while they agree in classifying it as a useful media application for improving the level of learners in the four skills by its interesting activities.

Duolingo application is an English learning application available in Web, Android, IOS and Windows Phone versions (Team, n.d). Not only English can be learned through it but other languages (Spanish, French, German, Dutch, etc) are also provided. Duolingo has received Google Play's best of the best in 2013 award from Google Play. It is easy to get for free through the Google Play Store also Duolingo uses gamification techniques that provide both written and listening learning which makes many people interested in learning the language through it. "Duolingo builds a world with free education and no language barriers. Users are able to learn languages for free while simultaneously translating web" (Jaskova, 2014, p.16).

2.5.2. The Main Features of Duolingo application:

Duolingo is classified as an educative game presenting language learning by focusing on enriching vocabulary. It presents the lesson on different modules such as basic, food, animal, common phrases, plurals, clothing, and the likes. The users are firstly introduced to several words or phrases related to each topic in the modules using images and then followed by a series of exercises in various form. According to "Wilbert et al., 2016" Duolingo is the future of language learning and global communication since it is a mobile-based language application that uses a combination of visual, audio and also questions about a grammar of a language, it offers several languages for English speakers as well as others for non-English speakers. Moreover, this application is used to leverage different skills: reading, writing, hearing and speaking through understanding and translating words and phrases. Furthermore, the most common activities Duolingo offers to achieve these are:

- a- Writing a word after seeing a picture that represents it.
- b- Translating a sentence from the foreign language to the native language.
- c- Translating a sentence from the native language to the foreign one.

- d- Writing a sentence after hearing it.
- e- Pronouncing a sentence.
- f- Matching pairs of words.

Duolingo includes multiple topics such as plurals, animals and food, which are further subdivided into courses tailored to the learner's level. Each theme is represented by a node whose color changes from gray (indicating that the theme has not started) to golden, indicating the best control within that theme. Golden can "morph" back into another color when Duolingo's algorithm detects that certain words have been forgotten. In addition, the learning method in the Duolingo application is based on gamification, which encourages students to continuously learn and improve their efforts. Students are awarded points based on their success and "compete" with their friends to see who has the most points, on one hand.

On the other hand, Duolingo has a lot of languages that learners choose to learn. English, Arabic, Spanish, French, Dutch, and other languages are available to select. It also has an educator's forum where the users can interchange subjects and topics with each other either as teacher or student to learn. It can measure learners' accomplishment and dedication in enjoyable ways. The apps provide information like points earned, of course overview tree, the streak, and the time spent. The practices are so numerous and easy for novice learners to learn a new language. The apps are very simple to use, the procedures and steps are easy to understand. Duolingo targets to be friendly for all ages from children, teenagers, parents, and others. Munday (2016) stated that Duolingo is preferred over regular assignments and media because of its convenience. It means that Duolingo is easy to use and more interesting so it will be comfortable to be one of the media that is used in teaching in the classroom. Also, Research done by Grego and Vesselinov (2012) which saw the effectiveness of Duolingo in learning language showed that the students are satisfied with learning language with Duolingo and they enjoyed learning it.

2.5.3. The Main Steps to operate Duolingo:

The first step; make sure your smartphone can access the internet. Then Download the Duolingo app from the App Store. After downloading, open the Duolingo app Image.

Figure2.1: Login view



(Happily ever travels, 2021)

The second step, users can register with a Google or Facebook account to maintain their progress.

Figure2. 2: Profile Register Image

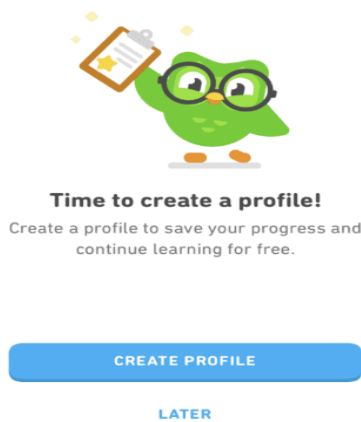
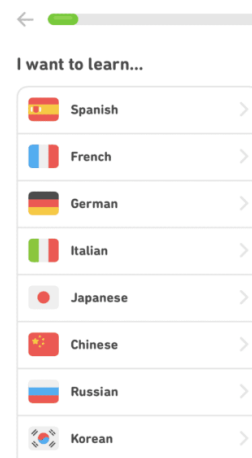


Figure2. 3: Selecting language

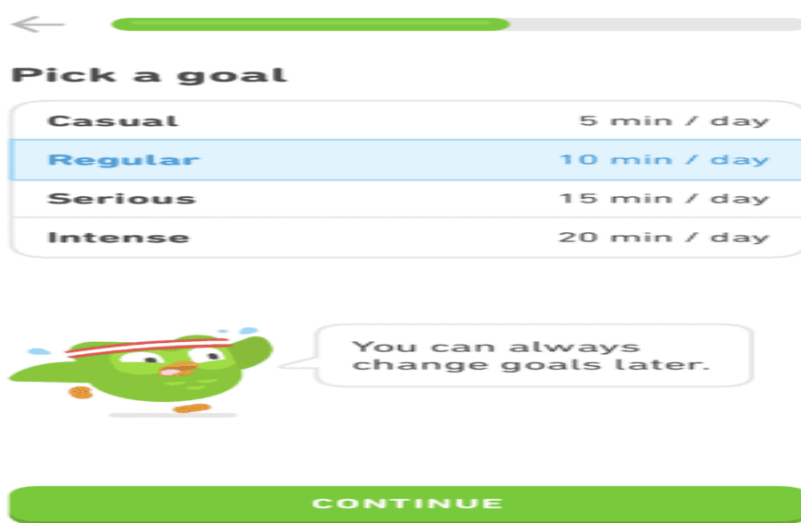


(Happily ever travels, 2021)

Step three: Select the "Get Started" menu and language from the start screen you want to learn (English) then choose the language you want to use (Arabic).

Then some easy-to-follow daily learning goals: Decision (5 minutes per day) normal, (10 minutes per day) serious, (15 minutes per day) and (20 minutes a day) crazy.

Figure2.4: Pick a goal



(Happily ever travels, 2021)

Step four: Choose your English level. Then Users can learn English from the beginner level. At the initial stage there are English language skills, including pronunciation, grammar and Vocabulary from oral and written questions.

2.5.4. Types of Exercises on Duolingo Application:

In general, the core teaching in Duolingo is extremely clear, the exercises are solid and replicate some of the typical drills. Exercises build on one another so that the learners are introduced to words and concepts at the right point in the program. According to Liang (2018) there are several exercises on the Duolingo application such as:

First, the translation exercise, in which the student needs to translate some words, sentences, or phrases from English into other languages or the reverse. The second is the matching exercise, in which the student matched a picture that was given with some words available. The third is the listening exercise, in which the student hears a word, sentence, or phrase in English, and they have to type it correctly. Fourth is speaking exercise, in which the student hears some word, sentence, or phrase in English and they have to say it correctly. The last exercise is to fill in the blank in an exercise in the form of multiple choices. The students must choose the correct answer among two or three choices.

Many researchers, including De Castro, da HoraMacedo, and Bastos (2016), say that Duolingo can motivate students to practice foreign languages every day, as Duolingo use has been found to help improve vocabulary, expand, and improve pronunciation and basic grammar. One of the benefits of learning through technology is that it makes learning a language faster, more accessible, and less painful, and allows for greater engagement in language review after teach (Siang et al., 2019). Many language learners use Duolingo to learn languages. There are some noteworthy aspects of the Duolingo app that make the practice great. One is to tolerate minor typos. If a student accidentally spells a word, the exercise can still be reasonably marked as correct. Amighty Duolingo can mean something wrong. If a learner makes a tiny, low-level mistake, Duolingo may still flag it as a mistake. The student will understand that his answer should be accepted because his answer is incorrect. The formats for delivering messages and data customized by Duolingo are called drills and exercises. Based on practice, students are given the opportunity to expand their skills.

2.5.5. The Purpose of Using Duolingo:

One of the difficult parts of learning the target language for English language Learners are the acquisition of vocabulary. Using educational games for teaching vocabulary has been very

popular for several decades. However, learners with their lack of vocabulary will face many problems such as a hard to understand what they read or listen to. Meanwhile, mastering vocabulary is important to those who are still beginners in learning a language, especially for foreign language learners. That is why vocabulary is a strongly important component to understand a language. There are many methods and techniques used to resolve this problem which are based on interesting ways of presenting vocabulary to the learner. According to Ruth Gairns and Stuart Redman (1991, p.73-74), there are two techniques in presenting vocabulary:

First, visual techniques include photography, wall charts and flashcards. They are extensively used for teaching which focus on items of vocabulary.

Second, verbal techniques include the use of illustrative situations (oral or written), use of synonyms and definition, contrast and opposite, scale and example of type. From the description above, the techniques provided by Duolingo included both of those.

The purpose of using Duolingo is that; the user can understand a language easily and they can use it appropriately and in the part of: what it provides in learning, the users will know if Duolingo focuses on mastering vocabulary. Based on it, Duolingo can be a medium for students to improve their vocabulary and teachers use it in the classroom to help their students in mastering vocabulary. One idea of using Duolingo is, it may help students master new vocabulary through games so they will not be bored in learning, and one game in particular that can be played for this purpose is Duolingo. Additionally, Duolingo application is very easy to find and use by everyone, especially EFL students.

2.5.6. Advantages of Duolingo:

Every medium for learning definitely has a positive and negative side according to the situation and condition of learning. There are some several advantages of Duolingo include:

First, Duolingo is a language learning media which can be used to increase levels of active learners in the teaching learning process. Because it incorporates some gamification aspect in learning; it can motivate and engage learners in learning with Duolingo (Munday, 2015, p.88). The material which learning for games is usually difficult to forget, it can be because the learners enjoy learning. Second, Duolingo is released to use multiple activities; students can hear, transcribe, speak and translate in one simple interface as you work with words and phrases. Duolingo makes it easy for teachers to track students' language learning progress, through sharing students their language learning progress and living with their teachers, who can dedicate a dashboard. While the ability to track student progress enables teachers to plan and teach Duolingo homework skills and bonus achievement points accordingly.

Third, Duolingo can be accessed anywhere and everywhere, so teachers are not difficult to implement it in indoor learning or outdoor learning. It is a media learning language as well which allows the learners to learn wherever they have internet connection and whenever they feel like it. Finally, Duolingo is one of the modern applications that facilitate acquiring a second language.

2.6. Duolingo and English vocabulary learning:

2.6.1. The Procedure of English Vocabulary Learning in Duolingo:

Current education is greatly influenced by technological advances which are considered as the latest solution to the challenge of learning English and with the progress of English learning methods Duolingo has completed the innovation of language learning methods on the basis of mobile phones. Duolingo can motivate students to practice a foreign language, enjoy them, manage and interact by themselves, building knowledge and gaining familiarity with the English language.

Wilbert (2016) defines Duolingo as one of the most popular learning media that is the future of language learning. Duolingo can be used as a combination of visual, audio, and questions about a language's grammar while, Putri and Islamiati (2018), introduce it as the method used in delivering learning material is enjoyable because the system of Duolingo application has several features such as: a game that makes the student feel learning while playing, adding an attractive visual display that is supported by audio. This application is very light once use, therefore the language skills learned through its area unit are pretty complete, starting from listening, speaking, writing, grammar and vocabulary, it does not overburden the platform used on the market on numerous platforms. Moreover, this application has some advantages and some weaknesses, that area unit some activities cannot be conducted on each computer and smartphone, lack of accessible language material in some places and this application additionally needs a web connection to access it. So it is pretty tough for the learner in a small space (Kenny, 2014; Rita et al., 2021). Meanwhile, Duolingo implements dictation and written learning, and speaking practice for a student who has entered a certain level.

2.6.2. Duolingo Application in previous studies:

Different studies revealed that games are beneficial in vocabulary learning because it enhances students' ability to memorize words, encourage their interaction, improve communicative skills and increase their motivation. There is already some research on Duolingo learning platforms, and one research was conducted by Ajisoko (2020). In his research, entitled the use of Duolingo Apps to improve English vocabulary learning, most of the respondents mentioned that it provided advantages in learning vocabulary. It helped them to discover new ideas, get a better understanding, master vocabulary, and it is applicable. Although most of the respondents mentioned positive responses toward the use of Duolingo, 1% of the respondents disagreed with the benefits. By the end he concluded that Duolingo is one of the most effective media in teaching-learning vocabulary.

The same result was found by Grego and Vesselinov (2012), when they did a research in which they saw the effectiveness of Duolingo in learning language. Their research showed that the students are satisfied in learning language with Duolingo and they enjoyed learning with it.

In 2016, Munday did a study called “The Case for Using Duolingo as Part of The Language Classroom Experience” in which he examined the efficiency of Duolingo in corporate with the traditional teaching method, and it was used in Spanish university courses. At the end, it was shown that Spanish learners enjoyed the app, and achieved more than the required levels. Furthermore, his results demonstrate that Duolingo could be more enjoyable and beneficial for basic level learners than the sophisticated levels. However, there are few studies about students’ perception toward Duolingo, such as Dewi Yana, who focused on investigating university students' perceptions (Dewi Yana, 2021) while Jaelani’s focused was to explore Junior High School (JHS) Students’ perceptions (Jaelani & Sutari, 2020).

In 2021, Dewi Yana intended to investigate the students' perception of Duolingo as an English learning medium. During the Pandemic (covid-19) in the academic Year: 2020-2021. The data were gathered from an online questionnaire and interview and then analyzed descriptively. The result shows that students perceived positively toward applying Duolingo Application as a tool to facilitate English language learning at Senior High school. It is interesting, motivating, and helpful, encourages students' confidence, and is compatible across Junior High school to University students. However, students also perceived its weakness; it is too colorful and word repetition.

In 2020, Jaelani and Sutari (2020) want to find out students' perceptions of using Duolingo as a medium in learning vocabulary in the Faculty of Teacher Training and Education “IbnKhaldun Bogor”. In this research, the researcher used questionnaires and interviews to

find out students' perceptions. This research was conducted in one junior high school in Bogor. The participants are 30 students from the second grade who give positive perceptions about the Duolingo application. The result of this research shows that most students preferred learning English vocabulary using the Duolingo application as a media. There are some advantages that can be taken from the use of Duolingo application as a media in learning English vocabulary, such as they are easy to understand the material, they were more excited and motivated in learning English vocabulary, and Duolingo can eliminate boredom in learning and also encourage them of new idea in learning.

Hence, the lack of studies undertaken on this research is important to investigate the perceptions of (L2) EFL students toward using Duolingo app in learning English vocabulary at Djilali Bounaama University. The result of this study is expected to serve new theories in language teaching and learning process. Thus, this study did not focus on investigating the students' perception towards using Duolingo Application to learn English vocabulary only. This study is then original as it is the first in the Faculty of Letters and Languages to investigate students' perception towards Duolingo use. At the end of this study, the researchers will hopefully be able to present students' perception in the English department of Letters and Languages at Djilali Bounaama University. The results of the study can have some useful pedagogical implications.

CHAPTER TWO:

THE EMPIRICAL

STUDY

Chapter Three: The Empirical Study

3.1. Research Method

Introduction

This study is designed to investigate the perceptions of (L2) EFL students towards learning English vocabulary through The Duolingo Application, in the Faculty of Letters and Languages at Djilali Bounaama University in Khemis Miliana as well as to find out the most effective strategy uses by students to learn English vocabulary, during the second semester of the academic year 2021/2022. The data gathered from questionnaire for (120) students. This section describes the methodology for our study. It provides information regarding the research objectives and questions, the participants, the research tools, and the data collection procedure.

3.1.1. Basic Method of Research:

3.1.1.1. Quantitative Approach:

Quantitative research involves the collection of data so that information can be quantified and subjected to statistical treatment in order to support or refute “Alternate knowledge claims” (Creswell, 2003, p. 153). For instant, “The Quantitative approach makes emphasis on numbers, on collection and analysis of statistical data” (Eyisi, 2016, p.94). Meanwhile, the quantitative approach generated numerical data converted into statistics, describing the characteristics and information collected from the group of participants. However, these steps helped us to investigate the perceptions of (L2) EFL students towards learning English vocabulary through The Duolingo Application in the Faculty of Letters and Languages at Djilali Bounaama University in Khemis Miliana as well as to find out the most effective strategy uses by students to learn English vocabulary, during the second semester of the academic year (2021/2022).

3.1.2. The Research Objectives and Questions

The aims of this study are:

- To investigate the perceptions of (L2) EFL students towards learning English vocabulary through The Duolingo Application.
- To find out the most effective strategy uses by students to learn English vocabulary.

* In order to achieve these aims we are arranging for data collection using questionnaire which distributed to (120) (L2) EFL students in the Faculty of Letters and Languages at Djilali Bounaama University in Khemis Miliana, during the second semester of the academic year 2021/ 2022.

* Concerning the research question, this study seeks to answer the following research questions:

1-What are the perceptions of (L2) EFL students towards learning English vocabulary through The Duolingo Application in the Faculty of Letters and Languages at Djilali Bounaama University in Khemis Miliana?

2-Which strategy is the most effective for students to learn English vocabulary: Face to face learning or The Duolingo application?

3.1.3. Population and sampling

3.1.3.1. Sampling:

It is the selection of specific data source from which data are collected to address the research objectives. According to Brink (2001, p. 133) a sample is " part or fraction of a whole, or a subset of larger set, selected by the researcher to participate in a research project a sample consists of a selected group of the elements or units from a defined population". While, Yin (2014, p. 42) "...use of the 'sample' portion of the term [ie, in purposive sampling] still risks misleading others into thinking that the case comes from some larger universe or population

of like-cases, undesirably reigniting the spectre of statistical generalization. The most desirable posture may be to avoid referring to any kind of sample (purposive or otherwise)".

Meanwhile, Merriam Webster defines sample as "the act, process, or technique of selecting a representative part of a population for the purpose of determining parameters or characteristics of the whole population."

3.1.3.2. Sample Random Sampling:

A simple random sampling is a randomly selected subset of a population. In this sampling method, each member of the population has an exactly equal chance of being selected. This method is the most straightforward of all the probability sampling methods, since it only involves a single random selection and requires little advance knowledge about the population. Because it uses randomization, any research performed on this sample should have high internal and external validity. Simple random sampling is used to make statistical inferences about a population. It helps ensure high internal validity: randomization is the best method to reduce the impact of potential confounding variables (Lauren Thomas, 2020). Indeed, Random sampling is a part of the sampling technique in which each sample has an equal probability of being chosen. A sample chosen randomly is meant to be an unbiased representation of the total population. If for some reasons, the sample does not represent the population, the variation is called a sampling error.

The current study includes one hundred twenty (120) participants 23 male and 97 female from (L2) EFL students Studying English in the Faculty of Letters and Languages at Djilali Bounaama University (Khemis Miliana). They are selected randomly from second year (L2) classes. The reason for choosing (L2) students is that they may be more aware about this application and ready for learning through it. Also, mastering English Vocabulary became essential for them to face the current era of globalization. Hence, their Learning experience made them more motivated in acquiring English vocabulary in order to become effective in

communication by using the English language through independent learning strategies and tools like: Duolingo.

3.1.4. The Research Design (Tools of Data Collection)

This research designed to investigate the perceptions of (L2) EFL students towards learning English vocabulary through The Duolingo Application in the Faculty of Letters and Languages at Djilali Bounaama University in Khemis Miliana as well as to find out the most effective strategy uses by students to learn English Vocabulary, during the second semester of the academic year 2021/2022.

***Technique of Data Collection:**

In this research, the data was collected by using the instrument called: Questionnaire.

The questionnaire: is considered as a good tool for collecting information in this kind of study because it is helpful to cover many aspects of this topic in a short time; it also causes less pressure on the respondents while writing their answers. Brown (2001, p.06) defines the questionnaire as “any written instrument that presents respondents with a series of questions or statements to which they are to react either by writing out their answers or selecting from among existing answers”.

We used a questionnaire to collect data from students about their perceptions towards the use of the Duolingo application as a tool for learning English.

3.1.4.1. The Students Questionnaire

The learner’s questionnaire consists of twenty (20) close-ended questions. The participants could tick the answer that is closest to their own point of view, here are two examples: (**see appendix D**).

3.1.4.2. Piloting the questionnaire:

After designing the questionnaire, it was given to a small group of 20 students to answer it in order to make the final decision about the number and the type of these questions. The aim of this piloting was to make sure that all its items are understandable and clear for the participants. This step took place on March 16, 2022 (See appendix C).

*It turns out that there is a small percentage of students who did not answer some of the questions, and that's what made us change some question by adding a third optional answer "I don't know" (see appendix D). We mention some examples by the following:

Q12-what do you think about the Duolingo application:

Good applicationBad applicationI don't know

Q14-Duolingo provides advantages in learning vocabulary:

Yes..... NoI do not know.....

We have attached the dissertation to a copy of some of the questions that have been prepared. Before modifying these questions and after modifying them (See appendix C and D).

3.1.5. Procedures of data collection:

The current study was carried out in the Faculty of Letters and Languages at Djilali Bounaama University in Khemis Miliana. The questionnaire was administered in March 2022. It was distributed to a sample of one hundred twenty (120) students that were from level (L2). In order to make sure the participants responded to the questionnaire items conscientiously, a regular English class was used with the permission of the teacher and agreement of the participants. The researchers were physically present during the administration of the questionnaire to solve any difficulties that may occur. However, an information sheet was distributed along with the questionnaire, and those students who agreed to take part in the

study signed a consent form. The respondents had the chance to ask questions. The time duration for the completion of the questionnaire was fifteen (15) minutes.

3.1.6. Quantitative Analysis:

The numerical data gathered from the closed-ended questions of the questionnaire are analyzed through the Statistical Package of Social Sciences (IBM SPSS V25).

Which is defined as a '*general statistical software tailored to the needs of social scientists and the general public*' (Blumenthal, 2010, 1). In simple words, SPSS is a window based program that can be used to perform data entry and analysis of statistical data and organize them into tables and diagrams.

3.1.7. Research Ethics:

The key principles of our research ethics contain in general three broad areas:

*** Potential Risks:**

There are no potential risks or harm will be caused to students in this research. They did not pay for their participation in this research.

***Voluntary consent:**

This research is voluntary, and students have the right to withdraw their participation in the research by keeping the questions without any answer. There is an information sheet which we gave to the research participants which includes different information about our research (**see appendix B**) and also, we obtain a consent form from the participants which gave their permission to start data collection with them (**see appendix A**).

***Scientific integrity:** In this research we try to be as honest as possible in proposing each section related to this dissertation.

Conclusion

The aim of this study is to investigate the perceptions of (L2) EFL students towards learning English vocabulary through The Duolingo Application in the Faculty of Letters and Languages at Djilali Bounaama University in Khemis Miliana as well as to find out the most effective strategy use by students to learn English vocabulary. In order to achieve this aim; our main research question was formulated: 1-What are the perceptions of (L2) EFL students towards learning English vocabulary through The Duolingo Application in the Faculty of Letters and Languages at Djilali Bounaama University in Khemis Miliana?

For collecting data, a questionnaire (close _ended questions) was used to gathered data which administrated to (120) participants from (L2) EFL students, in the Faculty of Letters and Languages at Djilali Bounaama University in Khemis Miliana.

CHAPTER FOUR:

FINDINGS

AND

DISCUSSION

Chapter Four: Findings and Discussion

Introduction:

This chapter includes the empirical study of our dissertation. It deals with the presentation of the findings obtained from the questionnaires administered to (120) EFL second year students, in order to investigate the perception of students towards the use of Duolingo application in learning vocabulary in the Faculty of Letters and Languages at Djilali Bounaama University. The results conducted from the questionnaires are treated by the Statistical Package of Social Sciences (IBM SPSS V25) which is a windows based program that can be used to perform data entry and analysis it. While, the result are presented as percentages, tables, diagrams and pie charts. This chapter is overlapping into two main parts. The first one presents the results obtained from the questionnaire which are analyzed through the computer program (IBM SPSS V25) and the second one is the discussion of those findings.

4.1. Presentation the results of the questionnaire

The results presented below are the product of quantitative data gathered through the questionnaires and are analyzed using the Statistical Package of Social Sciences (IBM SPSS V25) (see **appendix E**).

4.1.1. The Analysis of questionnaire:

Questionnaire was used to get the data about students' perception towards the use of Duolingo application in learning vocabulary. The numbers of questions are twenty (20) closed-ended in the questionnaire. The data can be seen in following tables, figures and description.

4.1.1.1. Section One: Students' interest in learning English

Table4. 1 : The total number of L2 participants

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------|-----------|---------|---------------|--------------------|
| Valid | Male | 23 | 19.2 | 19.2 | 19.2 |
| | Female | 97 | 80.8 | 80.8 | 100.0 |
| | Total | 120 | 100.0 | 100.0 | |

Table 01 shows that the majority of the (L2) participants (97), representing (80.8%), are “Female”. While the minority representing (23) with the percentage (19.2%) are “Male”, and the total number of (L2) is 120 students.

Table4.2: The total participants 'age groups

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | 18-23 | 79 | 65.8 | 65.8 | 65.8 |
| | 24-30 | 30 | 25.0 | 25.0 | 90.8 |
| | 31-40 | 10 | 8.3 | 8.3 | 99.2 |
| | 41-50 | 1 | .8 | .8 | 100.0 |
| | Total | 120 | 100.0 | 100.0 | |

Table 02 indicates the total age groups of participants (120), where (79) represent the majority of (L2) students [18-23] with the percentage (65.8%). The second participants age groups [24-30] are (30) representing (25%). The third groups [31-40] are (10) with (8.3%) and the last groups [41-50] show the minority of participants, one student (1) with the percentage of (0.8%).

Table4.3: students'interest in learning English

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | Yes | 118 | 98.3 | 98.3 | 98.3 |
| | No | 2 | 1.7 | 1.7 | 100.0 |
| | Total | 120 | 100.0 | 100.0 | |

Based on the table above, the highest score for the level of is the answer **yes** (118) and the lowest score is the answer **no**, where just (2) students who are not interested in learning English. So, nearly all the participants representing (98.3%) are interested in learning English language while only (1.7%) of them are not.

Table4.4: The level of (L2) EFLstudents in English

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|-----------|---------|---------------|--------------------|
| Valid | Weak | 9 | 7.5 | 7.5 | 7.5 |
| | Average | 74 | 61.7 | 61.7 | 69.2 |
| | Excellent | 37 | 30.8 | 30.8 | 100.0 |
| | Total | 120 | 100.0 | 100.0 | |

According to the data shown on the table 4, there are (74) student in the average level with the percentage (61.7%) and (37) students are excellent in English with the percentage (30.8%) while (9) students are weak in English level with the percentage (7.5%). This means that (L2) EFL students in the faculty of letter and literature have a good level in English.

The following crosstab can summarized section one:

Table4. 5: Cross table summarized section one

| | | | Are you interested in learning English? | | |
|---------------------------|-----------|--------|---|----|-------|
| Your level in English is? | | | Yes | No | Total |
| Weak | You are? | Male | 1 | | 1 |
| | | Female | 8 | | 8 |
| | Total | | 9 | | 9 |
| Average | You are ? | Male | 13 | 0 | 13 |
| | | Female | 60 | 1 | 61 |
| | Total | | 73 | 1 | 74 |
| Excellent | You are ? | Male | 9 | 0 | 9 |
| | | Female | 27 | 1 | 28 |
| | Total | | 36 | 1 | 37 |
| Total | You are ? | Male | 23 | 0 | 23 |
| | | Female | 95 | 2 | 97 |
| | Total | | 118 | 2 | 120 |

4.1.1.2. Section Two: The implementation of mobile applications in learning English vocabulary.

Table4. 6: students practice English through website, CD-ROMs, etc

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | Yes | 71 | 59.2 | 59.2 | 59.2 |
| | No | 49 | 40.8 | 40.8 | 100.0 |
| | Total | 120 | 100.0 | 100.0 | |

Based on the Table 6 above, it can be seen that the highest score is given to the answer yes, (71) participants representing (59.2%) practicing English through Website, CD-ROMs, etc. Meanwhile, the lowest score is the answer no, (49) participants representing (40.8%). This result reveals that the majority of L2 students practice English using Website, CD-ROMs...

Table4. 7: The use of students' perception towards the use of electronic dictionaries and encyclopedias

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|-----------|---------|---------------|--------------------|
| Valid | Never | 5 | 4.2 | 4.2 | 4.2 |
| | Sometimes | 86 | 71.7 | 71.7 | 75.8 |
| | Always | 29 | 24.2 | 24.2 | 100.0 |
| | Total | 120 | 100.0 | 100.0 | |

As shown in table (7), eighty six (86) students representing (71.7%) respond that they are “sometimes” using electronic dictionaries and encyclopedias to look up for vocabulary or

new concepts. While, twenty nine of them (29) representing (24.2%), answered by “always”, and only five (05) students (4.2%) responded by “never”.

Table4. 8 :L2 students’ use of smartphone applications for learning English

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | Yes | 98 | 81.7 | 81.7 | 81.7 |
| | No | 22 | 18.3 | 18.3 | 100.0 |
| | Total | 120 | 100.0 | 100.0 | |

Based on the data above, it was revealed that most of students (98) use Smartphone’s applications to learn English (81.7%). while (22) of them answer by no.

Table4.9 : students use mobile applications to practice English

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|-----------|---------|---------------|--------------------|
| Valid | Never | 4 | 3.3 | 3.3 | 3.3 |
| | Sometimes | 87 | 72.5 | 72.5 | 75.8 |
| | Always | 29 | 24.2 | 24.2 | 100.0 |
| | Total | 120 | 100.0 | 100.0 | |

As demonstrated in table (09),eighty seven (87) participants representing (72.5%), practice English through mobile applications “sometime” and twenty nine (29) students representing (24.2%) use it “always”. While only four (04) representing (3.3%), claimed to have “never” used it.

Figure 4.1: students' frequency mobile application use to practice English

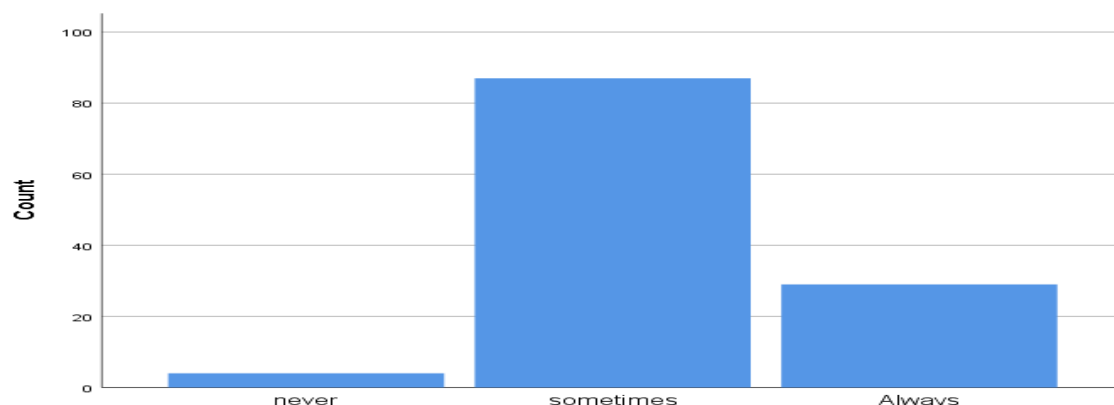


Table4. 10 :students'opinion about learning English through the use of mobile applications

| | | Cumulative | | | |
|-------|------|------------|---------|---------------|---------|
| | | Frequency | Percent | Valid Percent | Percent |
| How | Good | 115 | 95.8 | 95.8 | 95.8 |
| Valid | Bad | 5 | 4.2 | 4.2 | 100.0 |
| Total | | 120 | 100.0 | 100.0 | |

Based on the data above, the majority of students (95.8%) see that learning English through mobile applications is "good". and only (4.2%) of them see it bad. This indicates the positive perception of students toward learning through mobile app.

Table4. 11: students play games developing for learning

| | | Cumulative | | | |
|-------|-----------|------------|---------|---------------|---------|
| | | Frequency | Percent | Valid Percent | Percent |
| Valid | Never | 25 | 20.8 | 20.8 | 20.8 |
| | Sometimes | 80 | 66.7 | 66.7 | 87.5 |
| | Always | 15 | 12.5 | 12.5 | 100.0 |

| | | | |
|-------|-----|-------|-------|
| Total | 120 | 100.0 | 100.0 |
|-------|-----|-------|-------|

Based on the data above, the majority of students (66.7%) “Sometimes” play games developed for learning. While (12.5%) of them selected always. Meanwhile (20.8%) selected “never”.

4.1.1.3. Section three: students’ perception towards Duolingo applications

Table4. 12: students know the Duolingo app

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | Yes | 106 | 88.3 | 88.3 | 88.3 |
| | No | 14 | 11.7 | 11.7 | 100.0 |
| | Total | 120 | 100.0 | 100.0 | |

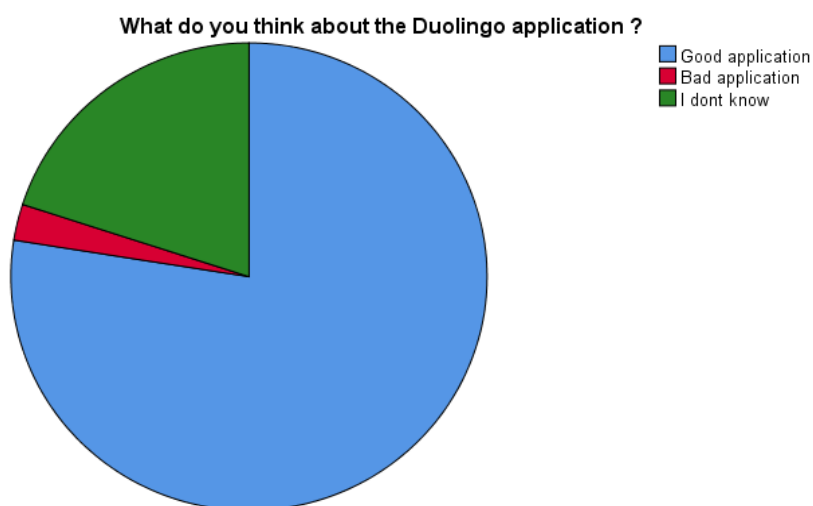
As the results reveal in Table12, the majority of participants (106) representing (88.3%), answered by “Yes”, they heard about Duolingo app. However the minority of them (14) representing (11.7%) “No” they don’t know it. It means that mostly all participants are familiar with this application.

Table4. 13: EFL students view about the Duolingo app

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|------------------|-----------|---------|---------------|--------------------|
| Valid | Good application | 93 | 77.5 | 77.5 | 77.5 |
| | Bad application | 3 | 2.5 | 2.5 | 80.0 |
| | I dont know | 24 | 20.0 | 20.0 | 100.0 |
| | Total | 120 | 100.0 | 100.0 | |

Based on above, (77.5%) students choose “good application” and only a few members (2.5%) think that Duolingo is” bad application”. While There were (20%) of them choose “I don’t know”. This result reveals that the majority of (L2) EFL students have a positive attitude towards Duolingo application because the material in the Duolingo applications are easy to understand and attached the ability of each user besides that the Duolingo application is free and provided some interesting feature.

Figure 4.2: pie chart showing students'view about Duolingo App



As illustrated in pie chart above, the color blue reveals the majority of students who think that Duolingo is good application, the color red symbolize those who have negative attitude towards Duolingo app who picked a tick on the answer bad application and the color green represents students who don’t have known whether it is good or bad.

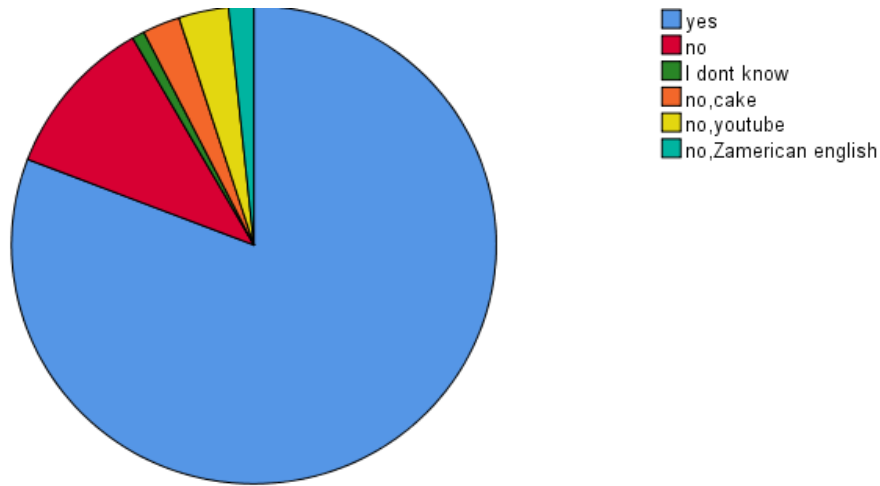
Table4. 14: students view about learning vocabulary through Duolingo

| | | | | Cumulative |
|-------|-----------|---------|---------------|------------|
| | Frequency | Percent | Valid Percent | Percent |
| <hr/> | | | | |

| | | | | | |
|-------|-----------------------|-----|-------|-------|-------|
| Valid | Yes | 97 | 80.8 | 80.8 | 80.8 |
| | No | 13 | 10.8 | 10.8 | 91.7 |
| | I don't know | 1 | .8 | .8 | 92.5 |
| | No, cake | 3 | 2.5 | 2.5 | 95.0 |
| | No, You Tube | 4 | 3.3 | 3.3 | 98.3 |
| | No, Zamerican English | 2 | 1.7 | 1.7 | 100.0 |
| | Total | 120 | 100.0 | 100.0 | |

As the results described in table (14), it is shown that most of the respondents (80.8%) are “yes”, students agreed that using Duolingo application can enhance their motivation to learn English. While (10.8%) of them respondents “no” and (7.5 %) choose other application, (2.5%) used cake app, (3.3%) YouTube and (1.7%) used Zamerican English to learn English. However, only (0.8%) answered by (I don't know). According to this, it is assumed that the use of Duolingo app is effective method use to improve the level of English learning because the majority of students are in an intermediate level. The following figure reveals this data more clear:

Figure 4.3: Pie chart illustrates students'view about learning vocabulary through Duolingo



4.1.1.4. Section four: Duolingo advantages

Table4.15: students view about the advantages of duolingo in learning vocabulary

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
| Valid | Yes | 99 | 82.5 | 82.5 | 82.5 |
| | No | 3 | 2.5 | 2.5 | 85.0 |
| | I dont know | 18 | 15.0 | 15.0 | 100.0 |
| | Total | 120 | 100.0 | 100.0 | |

As indicated in table (15), the majority of the participants representing (82.5%) agreed that Duolingo provides advantages in learning vocabulary. Whereas, (15%) of them, responded with “I don’t know”. and only three students choose “no” representing (2.5%).

Table4. 16: Most of learners feel that duolingo helps them to discover new ideas, have better understanding, mastring vocabulary, and applicative to use.

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|------------|-----------|---------|---------------|--------------------|
| Valid | Yes | 97 | 80.8 | 80.8 | 80.8 |
| | No | 6 | 5.0 | 5.0 | 85.8 |
| | Idont know | 17 | 14.2 | 14.2 | 100.0 |
| | Total | 120 | 100.0 | 100.0 | |

Based on the data above, the majority of students (97) are agreed that Most of the learners feel that Duolingo helps them to discover new ideas, have better understanding ,mastering vocabulary, and applicative to use. While only (6) students are disagreed and (17) of them do not have any idea.

Table4. 17: Duolingo has adventages in making learners interested to learn vocabulary (active learner)

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------------|-----------|---------|---------------|--------------------|
| Valid | Yes | 96 | 80.0 | 80.0 | 80.0 |
| | No | 7 | 5.8 | 5.8 | 85.8 |
| | I dont' know | 17 | 14.2 | 14.2 | 100.0 |
| | Total | 120 | 100.0 | 100.0 | |

Based on the data above, the majority of students (96) are agreed that Duolingo makes learners interested to learn vocabulary and most of learners feel that Duolingo motivates them, helpful, easy to use and makes them active in learning vocabulary. However, only (7) students are disagreed and (17) of them do not have any idea.

Figure 4.4: Duolingo has advantages in making learners interested to learn vocabulary (active learner)

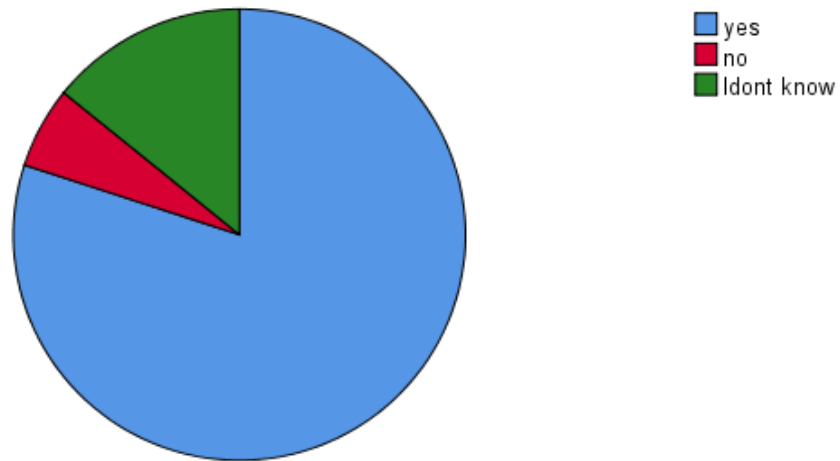
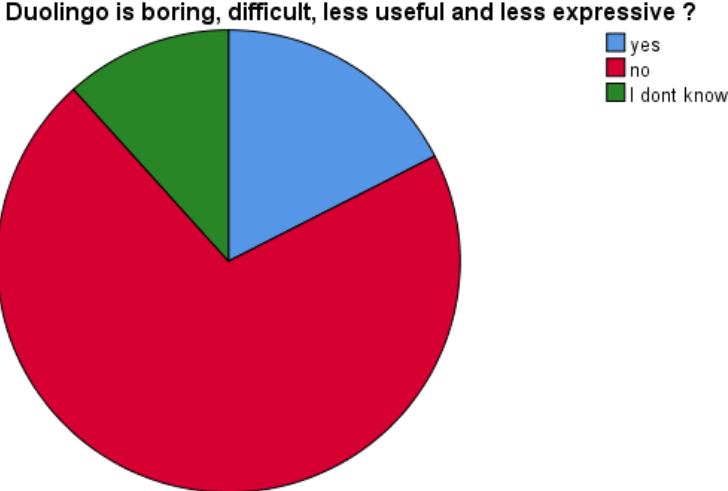


Table4. 18: Duolingo is boring, difficult, lessuseful and expressive

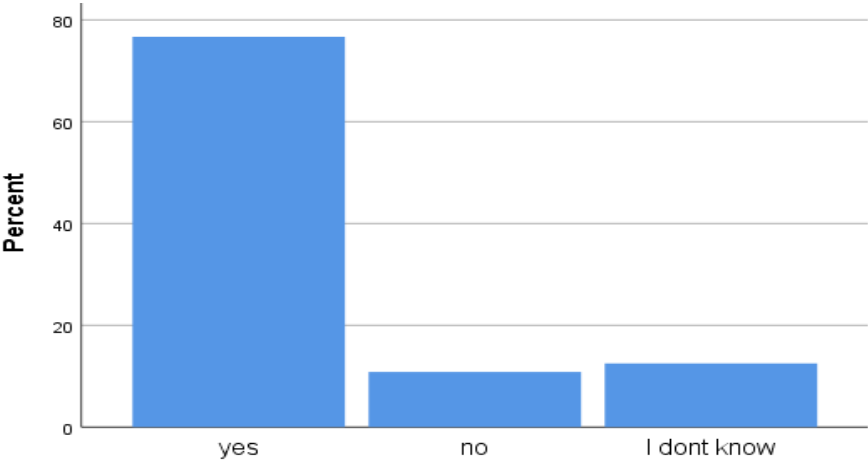
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
| Valid | Yes | 21 | 17.5 | 17.5 | 17.5 |
| | No | 85 | 70.8 | 70.8 | 88.3 |
| | I dont know | 14 | 11.7 | 11.7 | 100.0 |
| | Total | 120 | 100.0 | 100.0 | |

Figure 4.5: Duolingo is boring, difficult, less useful and less expressive



As illustrated in both pie chart and table above, the color “red” reveals the majority of students (70.8%) who think that Duolingo is “not boring”. While, the color “blue” reveals those who are “agreed that Duolingo app is boring, difficult, less useful and less expressive” representing (17.5%). The color “green” represents (11.7%) of them who “don’t have known whether it is boring or not”.

Figure 4.6: The app helps me to memorize the vocabulary



As illustrated in diagram above, the result reveals that the majority of students (76.7%) who answered yes Duolingo app help them to memorize the vocabulary. While (10.8%) of them answered by no. (12.5%) of them answered “I don’t know”.

Table4. 19: learning English by using Duolingo allows students to apply their English skills in their daily life

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | Yes | 97 | 80.8 | 80.8 | 80.8 |
| | No | 23 | 19.2 | 19.2 | 100.0 |
| | Total | 120 | 100.0 | 100.0 | |

Based on the table above, the highest score is given to the answer **yes** (97) representing (80.8%) and the lowest score is the answer **no**, (23) students who are not agreed that Learning with Duolingo app makes them able to use language skills in daily life. Nearly all the participants are interested in learning English language through the Duolingo application because it makes them able to use language skills in daily life.

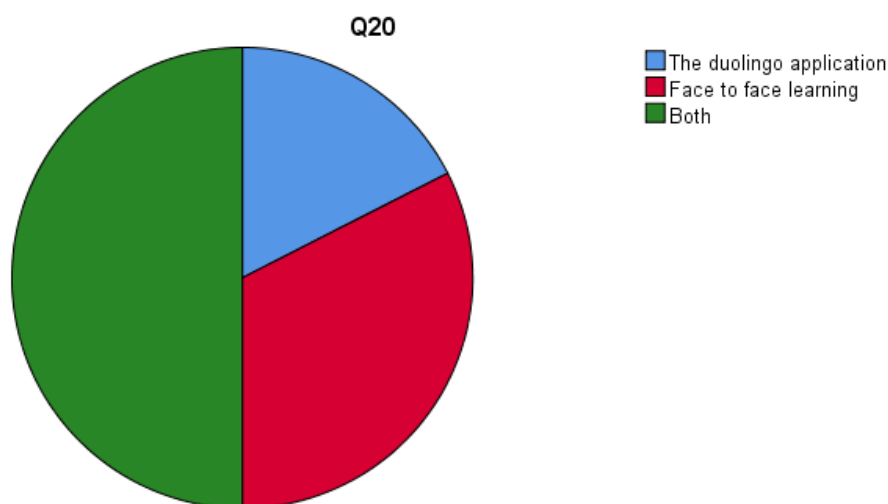
4.1.1.5. Section five: the most effective learning strategy

Table4.20: The most effective learning strategies

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------------------------|-----------|---------|---------------|--------------------|
| Valid | The duolingo application | 21 | 17.5 | 17.5 | 17.5 |
| | Face to face learning | 39 | 32.5 | 32.5 | 50.0 |

| | | | | |
|-------|-----|-------|-------|-------|
| Both | 60 | 50.0 | 50.0 | 100.0 |
| Total | 120 | 100.0 | 100.0 | |

Figure 54.7: The most effective learning strategies



As illustrated in both pie chart and table above, the color “Green” reveals the half of students (50%) who stated that both Duolingo and face to face were effective in learning English. however, the color “blue” reveals those who think that Duolingo more effective than learning directly with the teacher / lecturer “face to face”, representing (17.5%). The color “red” represents (32.5%) of them who prefer learning directly “face to face” with the teacher, lecturer was more effective. Moreover, there was feedback from the teacher lecturer and it was easy to understand and could find out where the error.

4.2. Discussion

This study aimed at investigating the students’ perception towards the use of Duolingo Application in learning English vocabulary, in the Faculty of Letters and Languages at Djilali Bounaama University in Khemis Miliana as well as to find out the most effective strategy

used by students to learn English Vocabulary. Based on the survey which contains twenty (20) close_ ended questions and the data gathered from one hundred twenty (120) (L2) EFL students. Our research findings reached the following:

In section one “students' interest in learning English”; it determined that nearly all the participants are interested in learning the English language (98.3%) (**See table 4.3**). However, The level of (L2) EFL students in English according to the data gathered are between average and excellent while a few number (9 students) are in weak level (**see table 4.4**). So, these findings are evident that the majority of participants are interested in learning English and their level confirms that. While, the results of section two “The implementation of mobile applications in learning English vocabulary” reveals that the majority of (L2) students practice English using Website, CD-ROMs, etc. It is apparent that a significant number of students are motivated to learn English vocabulary by themselves (self-learning) using technological tools (**see table 4.6**). Also, it shown that nearly all students use electronic dictionaries and encyclopedias to look up for vocabulary or new concepts (**see table 4.7**). In addition, most of students (98) like the use of Smartphone's applications to learn English representing (81.7%) and the majority of students (95.8%) see that learning English through mobile applications is “good” but only (4.2%) of them see it bad. This can show that nearly all the students like practicing English through their smartphone regularly (**see figure 4.1**). This result reveals more positive perception than negative from students in relation to what has been mentioned in the literature review, that Mobile learning creates an interactive learning environment using the different types of applications available on mobile devices. all what we mentioned above, supports the idea that one of the benefits of learning through technology is that it makes learning a language faster, more accessible, and less painful, and allows for greater engagement in language review after learning (Siang et al., 2019). Moreover, our current finding resonates with a number of other previous studies of mobile-

assisted language learning such as, Peters (2017), stated that it was a subset of e-Learning, a step toward making the educational process “just in time, just enough and just for me” (Peters, 2007, p.15) and he viewed mobile learning as a useful component of the flexible learning model. Also, Brown (2003) identified mobile learning as “An extension of e-learning” (Brown, 2005, p. 299). Hence, Pea and Maldonado (2006) stated that mobile learning incorporates “transformative innovations for learning futures” (p. 437). This finding indicates that, in general, the (L2) EFL students are interested to learn English depending on mobile learning applications as a complimentary way to the traditional classroom. Therefore, this finding increases the fact about the positive responses toward using Mobile Language Learning which highlighted in many previous literatures like Davis (2006), who illuminates the role of technology in different settings, influencing our lives and educational contexts. That is why; we cannot deny the important role of technology in learning English language through the use of the internet and mobile devices. While, in this research the majority of (L2) students play games developed for learning (see table 4.10) this is similarly to what Yildirim (as cited in Donmus, 2010, p. 1498) believes about learning through games “Educational games are activities that provide students the opportunity to reinforce the previous knowledge by repeating it in a more comfortable environment”.

Moving on to discuss the findings of section three: students’ perception towards Duolingo applications, in which the data reveals that mostly all the participants are familiar with Duolingo application and the majority of participants (106) representing (88.3%) have heard about the Duolingo application (see table 4.11). The result from question twelve (Q12) reveals that the majority of (L2) EFL students have a positive attitude towards Duolingo application as a good application in learning English, since it contains easy material to understand and attached the ability of each user, the Duolingo application is free and provided some interesting feature. Besides the data analysis above, it has proven that using Duolingo

application can motivate students to learn English any times and everywhere. Wilbert (2016) defines Duolingo as one of the most popular learning media that is the future of language learning. Duolingo can be used as a combination of visual, audio, and questions about a language's grammar. While, question thirteen (Q13) shows that most participants are agree that Duolingo can enhance their motivation to learn English .Meanwhile, other application used by students instead of Duolingo like cake, You Tube and Zamirecan English to learn English, this variety in applications determines in general the awareness of students about the importance of learning English so they adopted different ways to improve their English level (See figure 4.3).

In section four, advantages of Duolingo; the findings of question fourteen (Q14) determined that most of the participants (82.5%) agreed that Duolingo provides advantages in learning vocabulary. (15%) of them responded that they have no idea. Whereas only (2.5%) of them are disagreed. The results from question fifteen (Q15): show that most of the learners (97) are agreed that Duolingo helps them to discover new ideas, have better understanding, mastering vocabulary, and applicative to use. However, only (6) students are disagreed and (17) of them do not have any idea. As well as, the result from question sixteen (Q16) appears that the majority of students (96) are agreed that Duolingo makes learners interested to learn vocabulary and most of learners feel that Duolingo motivates them, helpful, easy to use and makes them active in learning vocabulary. While, there are only (7) students who are disagreed and (17) of them do not have any idea (see figure 4.4). Also, the result gained from question seventeen (Q17) determined that the majority of students (70.8%) disagreed with the idea that “Duolingo app is boring, difficult, less useful and less expressive” beside other students (17.5%) who agree with the idea above. Meanwhile (11.7%) of them “don’t know whether it is boring or not”. The results taken from question eighteen (Q18) reveals that the majority of students (76.7%) support the idea that Duolingo Apps help them in memorize

vocabulary. While, (10.8%) of them disagree. The same results are introduced in questions nineteen (Q19); nearly all the students are interested in learning the English language through the Duolingo Application because it makes them able to use language skills in daily life. All what we have mentioned in this section are in relation to the previous research done by Ajisoko (2020). In his research, entitled the use of Duolingo Apps to improve English vocabulary learning, most of the respondents mentioned that it provided advantages in learning vocabulary. It helped them to discover new ideas, get a better understanding, master vocabulary, and it is applicable. Most of the respondents mentioned positive responses toward the use of Duolingo. Also, research done by Grego and Vesselinov (2012) which saw the effectiveness of Duolingo in learning language showed that the students are satisfied with learning language with Duolingo and they enjoyed learning it. Putri and Islamiati (2018), introduce Duolingo application as the method used in delivering learning material is enjoyable because its system has several features such as: a game that makes the student feel learning while playing, adding an attractive visual display that is supported by audio. In section five; the half of students (50%) stated that both Duolingo and face to face learning were effective in learning English. However, (17.5%) think that Duolingo is more effective than learning directly with the teacher / lecturer “face to face learning “and (32.5%) of them prefer learning directly “face to face” with the teacher, lecturer since it is more effective. Since there is feedback from the teacher lecturer and it is easy to understand and could find out where the error is. Finally, this research led us to know that vocabulary is the essential part of any language and acquiring any language needs to know and understand it’s vocabulary either alone or in context, this means that proficiency in any Language does not come easily, but it starts gradually from knowing vocabulary (words) to formulating a sentence, writing an article and so on, it all depends on the desire of the learner this is the main reason that led students to use of their mobile application to learn and improve their

English language as Duolingo Application, which has many advantages and positive attitude on students' performance but we cannot deny the role of teacher who cannot replace by any application. Duolingo application remains as the effectiveness complimentary tool that can be used by students beside to the traditional classroom "face to face learning".

CHAPTER FIVE:
CONCLUSION

Chapter Five: Conclusion

General Conclusion:

This chapter presents the conclusion and suggestion that the researcher got after conducting the research.

5.1. Summary of the main findings:

This study is expected to serve new theories in language teaching and learning process, thus this study did not focus on investigating the students' perception towards using Duolingo app to learn English vocabulary only. However, this study is then original as it is the first in the faculty of letters and languages; at the end of this study the researchers will hopefully be able to present students' perception in the English departments of letters and language at Djilali Bounaama University, the results of this research can have some useful pedagogical implications. As a result of what we have discussed in this dissertation, we have concluded that the Duolingo application is a modern and important application in the scientific community for students, especially students of foreign languages.

As Duolingo app has easy-to-use techniques with quick response on demand, regardless of translation, which is the main purpose of Duolingo app, this app provides translation and explanation with the addition of synonyms, and it also includes voice translation and word output correction technology for all languages in the world this is what made the Duolingo application known for its great popularity and wide usage across the world. This made us conduct a questionnaire regarding the application of Duolingo at the level of the Faculty of Languages, and through which it was found that this application is among the most used applications among the student community.

The idea of formulating the two following research questions:

1-What are the perceptions of (L2) EFL students towards learning English vocabulary through The Duolingo Application in the Faculty of Letters and Languages at Djilali Bounaama University in Khemis Miliana?

2-Which strategy is the most effective for students to learn English vocabulary: Face to face learning or The Duolingo?

came from: The second year level students at the Faculty of Letters and Languages of the University of Djilali Bounaama Khemis Miliana to apply Duolingo, because it is an application that has gained wide acceptance and dissemination by the student community, due to its ease of use and quick response to the translation request, in addition to enriching the linguistic balance with new vocabularies and terms for students in the context Translate, it also has a translation speech which makes it an enhanced app for outputting words or correct pronunciation of words for different languages of the world. Also, undergraduate students rely on available means such as mobile phones and laptops by including the vocabulary or texts to be translated on the application to benefit from high-accuracy and reliable translation, especially the modern terms that have occurred in languages, including technological terms, political terms and scientific one. To sum up, the conclusion can be drawn as the following:

1_ Vocabulary is the essential part of all languages and acquiring any language needs to know and understand it's vocabulary either alone or in context, this means that proficiency in any Language does not come easily, but it starts gradually from knowing vocabulary (words) to formulating a sentence, writing an article and so on, it all depends on the desire of the learner this is the main reason that led students to use of their mobile application to learn and improve their English language as Duolingo Application.

2_ Duolingo Application has many advantages which affect students' performance positively

3_Students have a positive perception towards the use of Duolingo Application in learning English vocabulary.

4_We cannot deny the role of teacher who cannot be replaced by any application. Duolingo application remains as the effective complementary tool that can be used by students beside the traditional classroom "face to face learning".

5.1.1 Key research contributions:

1_ (L2) EFL students in the Faculty of Letters and Languages have positive perceptions towards the use of Duolingo Application in learning English vocabulary.

2_The most effective strategy for students to learn English vocabulary is both face to face learning and The Duolingo Application.

5.1.2 Limitations of the study:

Among the difficulties that we faced while dealing with this topic is the lack of references, regardless of the difficulty of communicating with students in order to distribute the questionnaire. The questionnaire was carried out in three stages and therefore, we encountered some student's reservations on the one hand and mockery on the other hand. The findings certainly do not represent the whole community of (L2) EFL students' at all universities of Algeria as it is limited to 120 students only (97) female and (23) male at Djilali Bounaama University, Khemis Miliana, and it cannot represent all Algerian students.

5.2. Some Suggestions and Recommendations or Further Researches:

It is important to mention that further research should be done and more studies should be conducted about the use of Duolingo in learning English vocabulary and encourage students to use other English developing learning applications strategies. In addition, this topic should be investigated with a large number of students to generalize its results. Moreover, it should

be examined in an experimental study since this kind of study is beneficial for greater reliability of data collection. In short, since our study was limited in some points, it is important to make further research to cover its limitations.

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Appendix A: Consent Form

Name of Researchers: Driassa Akila & Bouzidi chahrazed

Research title: INVESTIGATING (L2) EFL STUDENTS' PERCEPTION TOWARD THE USE OF DUOLINGO APPLICATION IN LEARNING ENGLISH VOCABULARY AT DJILALI BOUNAAMA UNIVERSITY.

* I give my consent to be a participant in this research and I acknowledge the following:
(please tick each box)

- I acknowledge that I have read the information sheet and understand the nature of this research.
- I agree to take part in the questionnaire of this research.
- I agree to take part in the questionnaire by answering the questions.
- I understand that the data will be protected in this research.
- I understand that I could withdraw my participation by keeping the questionnaire empty without answers.
- I understand that the data will be used in this research only.

Date:

Signature

Appendix B: information Sheet

Information Sheet

Full Name: Bouzidi Chahrazed and Driassa Akila

Course: postgraduate students in the Faculty of Letters and Languages at Djilali Bounaama University, Khemis Miliana.

Research: funded by the Algerian Government, and supervised by Dr Zahaf Fatima Zahra of the faculty of Art and languages Djilali Bounama Khmis Miliana

It is my pleasure to invite you to participate in my research which will examine: Using Duolingo Application in learning English vocabulary for L2 year students in the EFL Department at Djilali Bounaama University.

Research Aims:

The aims of this research are explained as follows:

- *Scouring more on the application of Duolingo and its techniques
- *How popular is the Duolingo app
- *Identify the percentage of the category used for this application in the students' community, or let's say university
- *Enriching the knowledge side of language and translation technology
- * Enriching the linguistic balance which vocabulary and terms that help the student in his academic level
- * Motives for using Duolingo

Appendix C

Students 'Use of Duolingo application for Learning English" Questionnaire"

Dear students, you are kindly requested to answer the questions below. Your answers are very important for the validity of our research. As such, we hope that you will give us your full attention and interest. The researchers will highly appreciate your responses.

Please put a tick (✓) next to the right answer about you:

| | | |
|----|--|---|
| 01 | You are: | Male <input checked="" type="checkbox"/> /Female..... |
| 02 | your Age : | 18-23 24-30 <input checked="" type="checkbox"/> 31-40 41-50..... |
| 03 | Are you interested in learning English? | Yes... <input checked="" type="checkbox"/> /No..... |
| 04 | Your level in English is: | Weak... <input checked="" type="checkbox"/> /Average... <input checked="" type="checkbox"/> /excellent..... |
| 05 | Do you practice English using website ,CD-ROMs ,etc. | Yes... <input checked="" type="checkbox"/> /No..... |
| 06 | Do you look up for new concepts /terms in electronic dictionaries and encyclopedias? | Never...../Sometimes <input checked="" type="checkbox"/> /always.... |
| 07 | Do you like using applications on Smartphone to learn English? | Yes... <input checked="" type="checkbox"/> /No..... |
| 08 | How often do you practice English on your mobile applications | Never...../Sometimes <input checked="" type="checkbox"/> /always.... |
| 09 | What is your opinion about learning English through the use of mobile applications | Good... <input checked="" type="checkbox"/> /bad..... |
| 10 | I play games developed for learning | Never...../Sometimes <input checked="" type="checkbox"/> /always.... |

Please go to the next page

| | | |
|----|---|---|
| 11 | Have you ever heard of the Duolingo app before? | Yes... <input checked="" type="checkbox"/> .../No..... |
| 12 | What do you think about the Duolingo application | Good application... <input checked="" type="checkbox"/> Bad application..... I don't know..... |
| 13 | Do you think the Duolingo application can enhance your motivation to Learn English? | Yes... <input checked="" type="checkbox"/> .../No.....(If no please, mention the application that you use to learn English |
| 14 | Duolingo provides advantages in learning vocabulary. | Yes... <input checked="" type="checkbox"/> .../No...../ I don't know..... |
| 15 | Most of learners feel that Duolingo helps them to discover new ideas, have better understanding, mastering vocabulary, and applicative to use. | Yes...../No...../ I don't know... <input checked="" type="checkbox"/> |
| 16 | Duolingo makes learners interested to learn vocabulary. Most of learners feel that Duolingo motivates them, helpful, easy to use and makes them active in learning vocabulary | Yes... <input checked="" type="checkbox"/> .../No...../ I don't know..... |
| 17 | Duolingo is boring, difficult, less useful and less expressive | Yes...../No... <input checked="" type="checkbox"/> .../ I don't know..... |
| 18 | The app helps me to memorize the vocabulary | Yes... <input checked="" type="checkbox"/> .../No...../ I don't know..... |
| 19 | Learning with the app makes me able to use language skills in daily life | Yes... <input checked="" type="checkbox"/> .../No...../ I don't know..... |
| 20 | Which of you think is more effective learning using: | The Duolingo application |
| | | Face to face learning...../Both Duolingo and face to face... <input checked="" type="checkbox"/> |

Thank you for taking the time to complete this survey

Students 'Use of Duolingo application for Learning English" Questionnaire"

Dear students, you are kindly requested to answer the questions below .Your answers are very important for the validity of our research. As such, we hope that you will give us your full attention and interest. The researchers will highly appreciate your responses.

Please put a tick (✓) next to the right answer about you:

| | | |
|----|--|--|
| 01 | You are: | Male/Female. ✓ |
| 02 | your Age : | 18-23 ✓/24-30 31-40 41-50..... |
| 03 | Are you interested in learning English? | Yes... ✓/No..... |
| 04 | Your level in English is: | Weak.../Average ✓/excellent..... |
| 05 | Do you practice English using website ,CD-ROMs ,etc. | Yes... ✓/No..... |
| 06 | Do you look up for new concepts /terms in electronic dictionaries and encyclopedias? | Never..../Sometimes ✓/always.... |
| 07 | Do you like using applications on Smartphone to learn English? | Yes.. ✓/No..... |
| 08 | How often do you practice English on your mobile applications | Never/Sometimes ✓/always.... |
| 09 | What is your opinion about learning English through the use of mobile applications | Good... ✓/bad..... |
| 10 | I play games developed for learning | Never...../Sometimes ✓/always.... |

Please go to the next page

| | | |
|----|---|--|
| 11 | Have you ever heard of the Duolingo app before? | Yes...../No..... <input checked="" type="checkbox"/> |
| 12 | What do you think about the Duolingo application | Good application..... Bad application..... I don't know..... <input checked="" type="checkbox"/> |
| 13 | Do you think the Duolingo application can enhance your motivation to Learn English? | Yes...../No..... <input checked="" type="checkbox"/> (If no please, mention the application that you use to learn English) <u>YouTube</u> |
| 14 | Duolingo provides advantages in learning vocabulary. | Yes...../No...../ I don't know..... <input checked="" type="checkbox"/> |
| 15 | Most of learners feel that Duolingo helps them to discover new ideas, have better understanding, mastering vocabulary, and applicative to use. | Yes...../No...../ I don't know..... <input checked="" type="checkbox"/> |
| 16 | Duolingo makes learners interested to learn vocabulary. Most of learners feel that Duolingo motivates them, helpful, easy to use and makes them active in learning vocabulary | Yes...../No...../ I don't know..... <input checked="" type="checkbox"/> |
| 17 | Duolingo is boring, difficult, less useful and less expressive | Yes...../No...../ I don't know..... <input checked="" type="checkbox"/> |
| 18 | The app helps me to memorize the vocabulary | Yes...../No...../ I don't know..... <input checked="" type="checkbox"/> |
| 19 | Learning with the app makes me able to use language skills in daily life | Yes...../No...../ I don't know..... <input checked="" type="checkbox"/> |
| 20 | Which of you think is more effective learning using: | The Duolingo application/ Face to face learning..... <input checked="" type="checkbox"/> Both Duolingo and face to face... |

Thank you for taking the time to complete this survey

Appendix D

Students "Use of Duolingo application for Learning English" Questionnaire"

Dear students, you are kindly requested to answer the questions below. Your answers are very important for the validity of our research. As such, we hope that you will give us your full attention and interest. The researchers will highly appreciate your responses.

Please put a tick (✓) next to the right answer about you:

| | | |
|----|--|--|
| 01 | You are: | Male <input checked="" type="checkbox"/> /Female..... |
| 02 | your Age : | 18-23 24-30 <input checked="" type="checkbox"/> 31-40 41-50..... |
| 03 | Are you interested in learning English? | Yes <input checked="" type="checkbox"/> /No..... |
| 04 | Your level in English is: | Weak.../Average <input checked="" type="checkbox"/> /excellent..... |
| 05 | Do you practice English using website ,CD-ROMs ,etc. | Yes <input checked="" type="checkbox"/> /No..... |
| 06 | Do you look up for new concepts /terms in electronic dictionaries and encyclopedias? | Never...../Sometimes <input checked="" type="checkbox"/> /always.... |
| 07 | Do you like using applications on Smartphone to learn English? | Yes <input checked="" type="checkbox"/> /No..... |
| 08 | How often do you practice English on your mobile applications | Never...../Sometimes <input checked="" type="checkbox"/> /always.... |
| 09 | What is your opinion about learning English through the use of mobile applications | Good... <input checked="" type="checkbox"/> /bad..... |
| 10 | I play games developed for learning | Never...../Sometimes <input checked="" type="checkbox"/> /always.... |

Please go to the next page

| | | |
|----|---|---|
| 11 | Have you ever heard of the Duolingo app before? | Yes...../No..✓..... |
| 12 | What do you think about the Duolingo application | Good.....application/ Badapplication. |
| 13 | Do you think the Duolingo application can enhance your motivation to Learn English? | Yes...../No..✓.....(If no please, mention the application that you use to learn English <u>Course</u>) |
| 14 | Duolingo provides advantages in learning vocabulary. | Yes...../No..... |
| 15 | Most of learners feel that Duolingo helps them to discover new ideas, have better understanding, mastering vocabulary, and applicative to use. | Yes...../No..... |
| 16 | Duolingo makes learners interested to learn vocabulary. Most of learners feel that Duolingo motivates them, helpful, easy to use and makes them active in learning vocabulary | Yes...../No..... |
| 17 | Duolingo is boring, difficult, less useful and less expressive | Yes...../No..... |
| 18 | The app helps me to memorize the vocabulary | Yes...../No..... |
| 19 | Learning with the app makes me able to use language skills in daily life | Yes...../No..... |
| 20 | Which of you think is more effective learning using: | The Duolingo application/ face to face learning...✓..... |

Thank you for taking the time to complete this survey ©

Appendix E

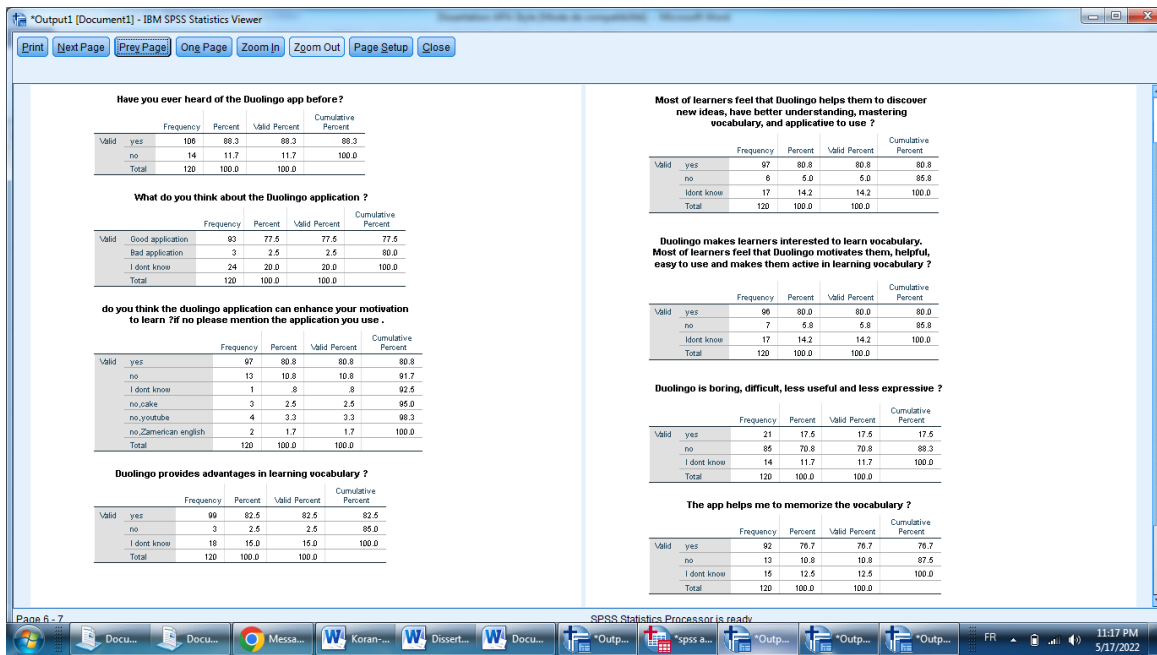
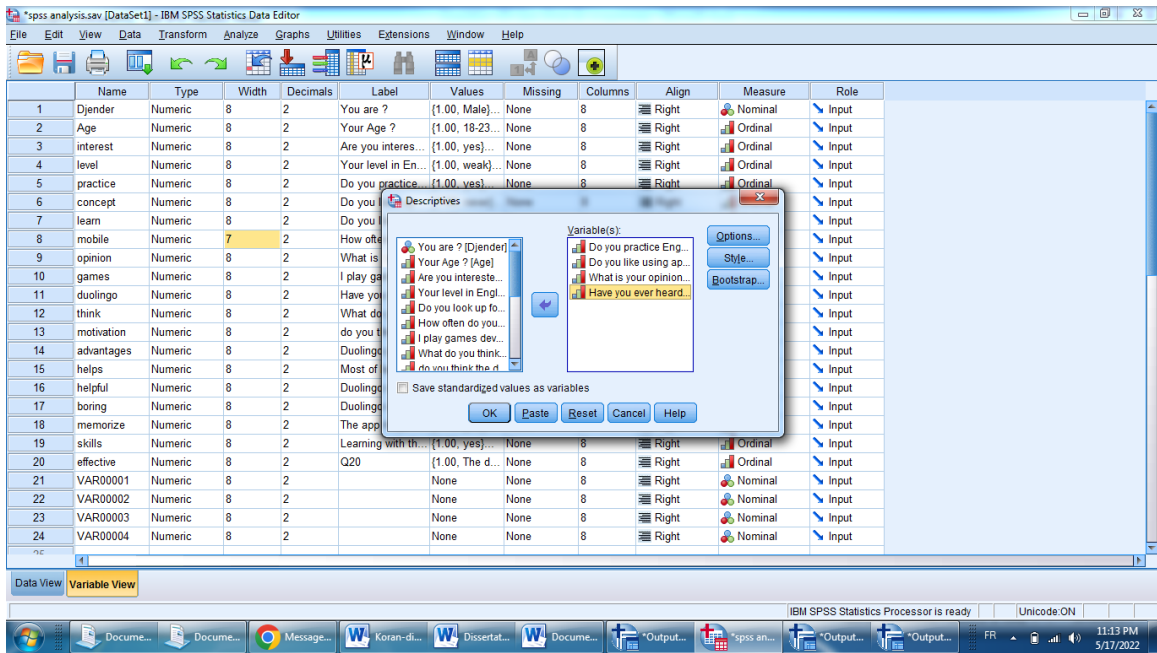
SPSS Variable View

| Name | Type | Width | Decimals | Label | Values | Missing | Columns | Align | Measure | Role | |
|------|------------|---------|----------|-------|---------------------|------------------|---------|-------|---------|---------|-------|
| 1 | Djender | Numeric | 8 | 2 | You are ? | {1.00, Male}... | None | 8 | Right | Nominal | Input |
| 2 | Age | Numeric | 8 | 2 | Your Age ? | {1.00, 18-23}... | None | 8 | Right | Ordinal | Input |
| 3 | interest | Numeric | 8 | 2 | Are you interes... | {1.00, yes}... | None | 8 | Right | Ordinal | Input |
| 4 | level | Numeric | 8 | 2 | Your level in En... | {1.00, weak}... | None | 8 | Right | Ordinal | Input |
| 5 | practice | Numeric | 8 | 2 | Do you practice... | {1.00, yes}... | None | 8 | Right | Ordinal | Input |
| 6 | concept | Numeric | 8 | 2 | Do you look up ... | {1.00, never}... | None | 8 | Right | Ordinal | Input |
| 7 | learn | Numeric | 8 | 2 | Do you like usi... | {1.00, yes}... | None | 8 | Right | Ordinal | Input |
| 8 | mobile | Numeric | 7 | 2 | How often do y... | {1.00, never}... | None | 8 | Right | Ordinal | Input |
| 9 | opinion | Numeric | 8 | 2 | What is your o... | {1.00, Good}... | None | 8 | Right | Ordinal | Input |
| 10 | games | Numeric | 8 | 2 | I play games d... | {1.00, never}... | None | 8 | Right | Ordinal | Input |
| 11 | duolingo | Numeric | 8 | 2 | Have you ever h... | {1.00, yes}... | None | 8 | Right | Ordinal | Input |
| 12 | think | Numeric | 8 | 2 | What do you th... | {1.00, Good}... | None | 8 | Right | Ordinal | Input |
| 13 | motivation | Numeric | 8 | 2 | do you think th... | {1.00, yes}... | None | 8 | Right | Ordinal | Input |
| 14 | advantages | Numeric | 8 | 2 | Duolingo provid... | {1.00, yes}... | None | 8 | Right | Ordinal | Input |
| 15 | helps | Numeric | 8 | 2 | Most of learner... | {1.00, yes}... | None | 8 | Right | Ordinal | Input |
| 16 | helpful | Numeric | 8 | 2 | Duolingo make... | {1.00, yes}... | None | 8 | Right | Ordinal | Input |
| 17 | boring | Numeric | 8 | 2 | Duolingo is bor... | {1.00, yes}... | None | 8 | Right | Ordinal | Input |
| 18 | memorize | Numeric | 8 | 2 | The app helps ... | {1.00, yes}... | None | 8 | Right | Ordinal | Input |
| 19 | skills | Numeric | 8 | 2 | Learning with th... | {1.00, yes}... | None | 8 | Right | Ordinal | Input |
| 20 | effective | Numeric | 8 | 2 | Q20 | {1.00, The d...} | None | 8 | Right | Ordinal | Input |
| 21 | VAR00001 | Numeric | 8 | 2 | | None | None | 8 | Right | Nominal | Input |
| 22 | VAR00002 | Numeric | 8 | 2 | | None | None | 8 | Right | Nominal | Input |
| 23 | VAR00003 | Numeric | 8 | 2 | | None | None | 8 | Right | Nominal | Input |
| 24 | VAR00004 | Numeric | 8 | 2 | | None | None | 8 | Right | Nominal | Input |

SPSS Data View

Visible: 24 of 24 Variables

| | Djender | Age | interest | level | practice | concept | learn | mobile | opinion | games | duolingo | think | motivation | advantages | helps |
|-----|---------|------|----------|-------|----------|---------|-------|--------|---------|-------|----------|-------|------------|------------|-------|
| 100 | 2.00 | 1.00 | 1.00 | 3.00 | 2.00 | 2.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 3.00 | 2.00 | 3.00 | 3.00 |
| 101 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 2.00 | 1.00 | 2.00 | 2.00 | 3.00 | 2.00 | 3.00 | 3.00 |
| 102 | 2.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 3.00 | 1.00 |
| 103 | 2.00 | 2.00 | 1.00 | 2.00 | 1.00 | 2.00 | 1.00 | 2.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 104 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 105 | 2.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 106 | 2.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 2.00 | 3.00 | 6.00 | 3.00 | 3.00 |
| 107 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 3.00 | 1.00 | 3.00 | 1.00 | 2.00 | 1.00 | 3.00 | 1.00 | 1.00 | 1.00 |
| 108 | 2.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 109 | 2.00 | 1.00 | 1.00 | 3.00 | 1.00 | 2.00 | 1.00 | 3.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 3.00 | 1.00 |
| 110 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 2.00 | 1.00 | 2.00 | 1.00 | 3.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 111 | 2.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 | 3.00 | 1.00 | 3.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 112 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 3.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 113 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 2.00 | 1.00 | 3.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 114 | 2.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 2.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 115 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 2.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 116 | 2.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 117 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 2.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 3.00 | 6.00 | 3.00 | 3.00 |
| 118 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 3.00 | 1.00 | 2.00 | 1.00 | 2.00 | 2.00 | 3.00 | 2.00 | 3.00 | 3.00 |
| 119 | 2.00 | 2.00 | 1.00 | 2.00 | 1.00 | 2.00 | 1.00 | 3.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 120 | 2.00 | 2.00 | 1.00 | 2.00 | 1.00 | 2.00 | 1.00 | 3.00 | 1.00 | 3.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 121 | | | | | | | | | | | | | | | |
| 122 | | | | | | | | | | | | | | | |



SPSS Statistics Processor is ready.

Page 3 of 4

Print Next Page Prev Page One Page Zoom In Zoom Out Page Setup Close

Statistics

Duolingo makes learners interested to learn vocabulary. Most of learners feel that Duolingo motivates them, helpful, easy to use and makes them active in learning vocabulary ?

Duolingo is boring, difficult, less useful and less expressive ?

The app helps me to memorize the vocabulary ?

Learning with the app makes me able to use language skills in daily life ?

| N | Valid | Missing | 020 |
|-----|-------|---------|-----|
| 120 | 120 | 0 | 0 |

Frequency Table

You are ?

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------|-----------|---------|---------------|--------------------|
| Valid Male | 23 | 19.2 | 19.2 | 19.2 |
| Female | 97 | 80.8 | 80.8 | 100.0 |
| Total | 120 | 100.0 | 100.0 | |

Are you interested in learning English ?

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-----------|-----------|---------|---------------|--------------------|
| Valid yes | 118 | 98.3 | 98.3 | 98.3 |
| no | 2 | 1.7 | 1.7 | 100.0 |
| Total | 120 | 100.0 | 100.0 | |

Your level in English is ?

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------|-----------|---------|---------------|--------------------|
| Valid weak | 9 | 7.5 | 7.5 | 7.5 |
| average | 74 | 61.7 | 61.7 | 69.2 |
| excellent | 37 | 30.8 | 30.8 | 100.0 |
| Total | 120 | 100.0 | 100.0 | |

Do you practice English using website ,CD-ROMs ,etc. ?

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-----------|-----------|---------|---------------|--------------------|
| Valid yes | 71 | 59.2 | 59.2 | 59.2 |
| no | 49 | 40.8 | 40.8 | 100.0 |
| Total | 120 | 100.0 | 100.0 | |

Your Age ?

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------|-----------|---------|---------------|--------------------|
| Valid 18-23 | 79 | 65.8 | 65.8 | 65.8 |
| 24-30 | 30 | 25.0 | 25.0 | 90.8 |
| 31-40 | 10 | 8.3 | 8.3 | 99.2 |
| 41-50 | 1 | .8 | .8 | 100.0 |
| Total | 120 | 100.0 | 100.0 | |

Do you look up for new concepts/terms in electronic dictionaries and encyclopedias ?

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------|-----------|---------|---------------|--------------------|
| Valid never | 5 | 4.2 | 4.2 | 4.2 |
| sometimes | 86 | 71.7 | 71.7 | 75.8 |
| always | 29 | 24.2 | 24.2 | 100.0 |
| Total | 120 | 100.0 | 100.0 | |

FR 11:15 PM 5/17/2022

Appendix F: Time table & the permission sheet for making research

1-Timetable

| Months | Title | Literature review | Methods | Data collection | Conclusion |
|----------|-------|-------------------|---------|-----------------|------------|
| November | * | | | | |
| December | | * | | | |
| January | | * | | | |
| February | | * | * | | |
| March | | | * | | |
| April | | | * | * | |
| May | | | | * | * |

2-The permission sheet for making research

.. الجمهورية الجزائرية الديمقراطية الشعبية
وزارة التعليم العالي والبحث العلمي
جامعة جيلة بونعامة خميس مليانة
كلية الآداب واللغات

قسم اللغة الإنجليزية
التخصص: لغة وإعمال

خميس مليانة في 31/03/2022

السيدة رئيسة قسم كلية الآداب

الموضوع: طلب الإذن بطرح وتوزيع أسئلة خاصة بمذكرة التخرج
على الطلبة داخل الكلية

بعد التحية

يسر فني أنه أتقدم إلي سيادتكم المحترمة بطلبي هذا المتقبل في
الإذن بطرح وتوزيع أسئلة خاصة بمذكرة التخرج على الطلبة
داخل الكلية لمذكرة التخرج تحت عنوان: مدى إستعمال
الطلبة لتطبيق دولينجو (Dolingo) في تعلم مفردات اللغة
الإنجليزية

وذلك لما يشترطه موقع المذكرة من خطوات كما أضيفكم علماً
أننا تحت إشراف الأستاذة: زخاف فاطمة الزهراء
وفي الأخير تقبلوا مني فائق التقدير والاحترام

أعضاء الخوج :

بوزيري شمس الدين
درياسة عقيلة

رئيسة قسم الآداب واللغات
الجامعة الجزائرية بونعامة خميس مليانة