

PASSIVO –PASSIVE VOICE MOBILE APPLICATION FOR
LEARNING PASSIVE VOICE AMONG STUDENTS OF POLYTECHNIC

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DEDICATION

This project report is dedicated to my late father, Ahmad Sazali bin Ali, who taught me that the best kind of knowledge to have is that, which is learned for its own sake. It is also dedicated to my mother, Feros Binti Md. Noh who taught me that even the largest task can be accomplished if it is done one step at a time. Not forgetting to my husband, Muhammad Hanif and also my daughter and sons, Orkid, Mika and Emry for being my supportive backbone all this while.

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ABSTRACT

The use of mobile applications in second language learning is no stranger in teaching and learning English as a second language. The development of Passivo mobile application focuses on the learning objectives of the study that is (a) to develop the mobile application – ‘Passivo’ that can be used by the students; (b) to investigate the effectiveness of mobile application – Passivo in passive voice learning in terms of promoting active learning and learner motivation among students. (c) To identify any significant difference in scores between using ‘Passivo’ apps and traditional instruction among semester 3 students. (d) to identify the students’ perceptions towards using ‘Passivo – Passive Voice’ apps in learning Passive Voice in terms of ease of use, usefulness and attitude. The research design used was experimental design with pre-test and post-test of passive voice between treatment and control group, and also the distribution of the questionnaire asking their perceptions of Passivo application in terms of active learning and motivation. Besides, perceptions on Perceived Ease of Use, Perceived Usefulness and Attitude were also asked. 71 students of semester 2 from southern polytechnic who learn the subtopic of passive voice from the Process and Procedure topic in DUE30022 Communicative English 2. The groups were divided into the treatment group and the control group. The result shows that the Active Learning scores recorded the mean of 3.71 and Motivation recorded the mean of 3.68. Meanwhile, the Perceived Ease of Use recorded the mean of 3.81, Perceived Usefulness with 3.83 and Attitude was 3.81. Finally, for the pre-test and post-test scores between treatment group students (mean = 15.57, SD = 3.751) was higher compared to the control group (mean = 14.20, SD = 3.496). It indicates that there was a significant difference of Passive Voice scores between control and treatment group. In general, Passivo mobile application is the potential learning application that could be extensively used by the students to learn passive language.

ABSTRAK

Penggunaan aplikasi mudah alih dalam pembelajaran bahasa kedua tidak asing lagi dalam pengajaran dan pembelajaran bahasa Inggeris sebagai bahasa kedua. Pembangunan aplikasi mudah alih Passivo menumpukan pada objektif pembelajaran kajian iaitu (a) membangunkan aplikasi mudah alih - 'Passivo' yang dapat digunakan oleh pelajar; (b) untuk menyiasat keberkesanan aplikasi mudah alih - Passivo dalam pembelajaran *passive voice* dari segi pembelajaran aktif dan motivasi pelajar di kalangan pelajar, (c) Untuk mengenal pasti perbezaan skor yang signifikan antara penggunaan aplikasi 'Passivo' dan pengajaran tradisional di kalangan pelajar semester 3, (d) untuk mengenal pasti persepsi pelajar terhadap penggunaan aplikasi 'Passivo - Passive Voice' dalam mempelajari *Passive Voice* dari segi kemudahan penggunaan, kegunaan dan sikap. Reka bentuk kajian yang digunakan adalah reka bentuk eksperimen dengan ujian pra dan ujian pasca *passive voice* antara kumpulan rawatan dan kawalan, dan juga sebarang soal selidik bagi mendapatkan persepsi mereka terhadap aplikasi Passivo dari segi pembelajaran aktif dan motivasi. Selain itu, persepsi tentang Kemudahan Penggunaan, Persepsi Penggunaan dan Sikap juga ditanyakan. 71 pelajar semester 2 dari politeknik selatan yang mempelajari subtopik suara pasif dari topik *Process and Procedures* dalam subjek *Communicative English 2* DUE30022. Kumpulan dibahagikan kepada kumpulan rawatan dan kumpulan kawalan. Hasil kajian menunjukkan bahawa skor Pembelajaran Aktif mencatat min 3.71 dan Motivasi mencatat min 3.68. Sementara itu, Kemudahan Penggunaan yang mencatatkan nilai rata-rata 3.81, Persepsi Penggunaan dengan 3.83 dan Sikap 3.81. Akhirnya, bagi skor ujian pra dan ujian pasca antara pelajar kumpulan rawatan (min = 15.57, SD = 3.751) lebih tinggi berbanding dengan kumpulan kawalan (min = 14.20, SD = 3.496). Ini menunjukkan bahawa terdapat perbezaan yang signifikan dalam skor *passive voice* antara kumpulan kawalan dan kumpulan rawatan. Secara umumnya, aplikasi mudah alih Passivo adalah aplikasi pembelajaran berpotensi yang dapat digunakan secara meluas oleh para pelajar untuk belajar *passive voice*.

TABLE OF CONTENTS

| | TITLE | PAGE |
|------------------|---|-------------|
| | DECLARATION | 1 |
| | DEDICATION | 2 |
| | ACKNOWLEDGEMENT | 3 |
| | ABSTRACT | 4 |
| | ABSTRAK | 5 |
| | TABLE OF CONTENTS | 6 |
| | LIST OF TABLES | 11 |
| | LIST OF FIGURES | 12 |
| | LIST OF ABBREVIATIONS | 14 |
| | LIST OF APPENDICES | 15 |
| CHAPTER 1 | INTRODUCTION | 16 |
| 1.1 | Overview of The Project | 16 |
| 1.2 | Problem Background | 17 |
| 1.3 | Problem Statement | 23 |
| 1.4 | Research Objectives | 25 |
| 1.5 | Research Questions | 25 |
| 1.6 | Research Hypotheses | 26 |
| 1.7 | Significance of the Study | 27 |
| | 1.7.1 Individual Level | 27 |
| | 1.7.2 Organizational Level | 28 |
| | 1.7.3 National Level | 29 |
| 1.8 | Research Scope and Limitation | 29 |
| 1.9 | Conceptual Framework | 30 |
| 1.10 | Operational Definition of Key Terms | 32 |
| | 1.10.1 English as a Second Language (ESL) | 32 |
| | 1.10.2 Mobile Application | 32 |
| | 1.10.3 Passive Voice | 33 |

| | | |
|------------------|---|-----------|
| 1.10.4 | Connectivism Learning Theory | 34 |
| 1.10.5 | Perceived Ease of Use | 35 |
| 1.10.6 | Perceived Usefulness | 35 |
| 1.10.7 | Attitude towards Technology | 35 |
| 1.11 | Conclusion | 36 |
| CHAPTER 2 | LITERATURE REVIEW | 37 |
| 2.1 | Introduction | 37 |
| 2.2 | Connectivism Theory | 37 |
| 2.3 | Passive Voice in Process and Procedure Description | 38 |
| 2.4 | Difficulties in Learning Passive Voice among Students | 39 |
| 2.5 | Types of Passive Voice Error Among Students | 40 |
| 2.6 | Technology Tools in English as Second Language (ESL) Learning | 42 |
| 2.7 | Technology Tools in Passive Voice Learning | 44 |
| 2.8 | Instructional Design Models | 46 |
| 2.8.1 | ADDIE Model | 46 |
| 2.9 | Theory of Reasoned Action (TRA) | 48 |
| 2.10 | Theory of Planned Behavior (TPB) | 49 |
| 2.11 | Technology Acceptance Model (TAM) | 50 |
| 2.12 | Technology Acceptance Model (TAM) in Educational Context | 52 |
| CHAPTER 3 | RESEARCH METHODOLOGY | 56 |
| 3.1 | Introduction | 56 |
| 3.2 | Research Method | 56 |
| 3.3 | Population and Sample | 57 |
| 3.4 | Research Instruments | 57 |
| 3.4.1 | Validity of Instrument | 59 |
| 3.4.2 | Reliability of Instrument | 60 |
| 3.4.3 | Pilot Study | 61 |
| 3.5 | Research Procedure | 62 |
| 3.6 | Proposed Data Analysis | 64 |

| | | |
|------------------|--|-----------|
| 3.7 | Data Analysis Procedure | 66 |
| 3.7.1 | Pre-Test and Post-Test | 66 |
| 3.7.2 | Questionnaire Analysis | 67 |
| 3.8 | Conclusion | 68 |
| CHAPTER 4 | DEVELOPMENT OF THE APPLICATION | 70 |
| 4.1 | Introduction | 70 |
| 4.2 | Application Learning Objectives | 70 |
| 4.3 | Content of the Application | 70 |
| 4.4 | Instructional Design | 74 |
| 4.4.1 | Analysis Phase | 74 |
| 4.4.2 | Design Phase | 76 |
| 4.4.2.1 | Flowchart of the Application | 76 |
| 4.4.3 | Development Phase | 78 |
| 4.4.3.1 | Home / Main Menu (App Inventor Designer) | 78 |
| 4.4.3.2 | Home / Main Menu (App Inventor Block Editor) | 79 |
| 4.4.3.3 | Home / Main Menu (App Inventor Block Editor) | 80 |
| 4.4.3.4 | Active Voice (App Inventor Block Editor) | 81 |
| 4.4.3.5 | Passive Voice (App Inventor Designer) | 82 |
| 4.4.3.6 | Passive Voice (App Inventor Block Editor) | 83 |
| 4.4.3.7 | Quiz | 83 |
| 4.4.3.8 | Quiz 1 (App Inventor Designer) | 84 |
| 4.4.3.9 | Quiz 1 (App Inventor Block Editor) | 85 |
| 4.4.3.10 | Quiz 2 (App Inventor Designer) | 87 |
| 4.4.3.11 | Quiz 2 (App Inventor Block Editor) | 89 |
| 4.4.3.12 | Quiz 3 (App Inventor Designer) | 92 |
| 4.4.3.13 | Quiz 3 (App Inventor Block Editor) | 93 |
| 4.4.3.14 | Info Page (App Inventor Designer) | 95 |

| | | |
|------------------|--|------------|
| 4.4.3.15 | Info Page (App Inventor Block Editor) | 96 |
| 4.4.3.16 | Feedback Page (App Inventor Designer) | 97 |
| 4.4.3.17 | Feedback Page (App Inventor Block Editor) | 98 |
| 4.4.4 | Implementation Phase | 98 |
| 4.4.5 | Evaluation Phase | 99 |
| 4.5 | Conclusion | 99 |
| CHAPTER 5 | RESULTS | 100 |
| 5.1 | Introduction | 100 |
| 5.2 | Demography of Respondents | 100 |
| 5.2.1 | Gender | 100 |
| 5.2.2 | The Most Used Devices for Online Learning | 101 |
| 5.2.3 | Time Spent when Using Passivo Mobile Application | 102 |
| 5.3 | Research Question 1 | 102 |
| 5.3.1 | Active learning | 103 |
| 5.3.2 | Motivation | 104 |
| 5.4 | Research Question 2 | 106 |
| 5.4.1 | Normality Analysis | 106 |
| 5.4.2 | Pre-Test | 107 |
| 5.4.3 | Post-Test | 107 |
| 5.4.4 | Comparison Between Passive Voice Pre-test and Post-test Scores for Control Group | 108 |
| 5.4.5 | Comparison Between Passive Voice Pre-test and Post-test Scores for Treatment Group | 109 |
| 5.4.6 | Comparison of Passive Voice Pre-Test Scores Between Control and Treatment Group | 110 |
| 5.4.7 | Comparison of Passive Voice Post-Test Scores Between Control and Treatment Group | 110 |
| 5.5 | Research Questions 3 | 111 |
| 5.5.1 | Perceived Ease of Use (PEOU) | 112 |
| 5.5.2 | Perceived Usefulness (PU) | 113 |

| | | |
|-------------------|-------------------------------------|------------|
| | 5.5.3 Attitude | 115 |
| 5.6 | Conclusion | 116 |
| CHAPTER 6 | DISCUSSION AND CONCLUSION | 117 |
| 6.1 | Introduction | 117 |
| 6.2 | Summary of Findings | 117 |
| 6.3 | Discussion | 118 |
| | 6.3.1 Research Question 1 | 118 |
| | 6.3.2 Research Question 2 | 119 |
| | 6.3.3 Research Question 3 | 119 |
| 6.4 | Research Implications | 121 |
| 6.5 | Research Limitation | 122 |
| 6.6 | Recommendations for Future Research | 123 |
| 6.7 | Conclusion | 124 |
| REFERENCES | | 125 |

LIST OF TABLES

| TABLE NO. | TITLE | PAGE |
|------------------|--|-------------|
| Table 3.1 | Research Questions with Research Instruments and Analysis Method | 58 |
| Table 3.2 | Analysis of Reliability | 61 |
| Table 3.3 | Research Questions, Analysis Method and Expected Output | 64 |
| Table 3.4 | Table of Score and Criteria | 66 |
| Table 3.5 | Range Scale in Questionnaire | 688 |
| Table 4.1 | Content of the Passivo Mobile Application | 71 |
| Table 5.1 | Gender (Control and Treatment Group) | 85 |
| Table 5.2 | The Most Used Devices for Online Learning | 85 |
| Table 5.3 | Spend Time For using Passivo mobile application to learn Passive Voice. | 86 |
| Table 5.4 | Active Learning Means and Standard Deviation Scores | 104 |
| Table 5.5 | Motivation Means and Standard Deviation Scores | 106 |
| Table 5.6 | Normality Analysis | 107 |
| Table 5.7 | Pre-test Score Level | 108 |
| Table 5.8 | Post-test Score Level | 109 |
| Table 5.9 | Comparison Between Pre-test and Post-test Scores in Control Group | 110 |
| Table 5.10 | Comparison Between Passive Voice Pre-test and Post-test in Treatment Group | 110 |
| Table 5.11 | Comparison of Passive Voice Pre-Test Scores Between Control and Treatment Group | 111 |
| Table 5.12 | Comparison of Passive Voice Post-Test Scores Between Control and Treatment Group | 112 |
| Table 5.13 | Perceived Ease of Use (PEOU) Means and Standard Deviation Scores | 113 |
| Table 5.14 | Perceived Usefulness (PU) Means and Standard Deviation Scores | 115 |
| Table 5.15 | Attitude Means and Standard Deviation Scores | 116 |

LIST OF FIGURES

| FIGURE NO. | TITLE | PAGE |
|-------------------|---|-------------|
| Figure 1. 1 | The Rule of Active Voice | 22 |
| Figure 1. 2 | Conceptual Frameworks on Technology Acceptance Model | 31 |
| Figure 2. 1 | Theory of Reasoned Action (TRA) (Ajzen and Fishbein 1980) | 49 |
| Figure 2. 2 | Theory of Planned Behaviour (TPB) (Ajzen 1991) | 50 |
| Figure 2. 3 | Technology Acceptance Model (TAM) (David, Bagozzi & Warshaw 1989) | 51 |
| Figure 3. 1 | Flowchart of Research Procedure | 62 |
| Figure 4. 1 | ADDIE Model | 74 |
| Figure 4. 2 | Flowchart of the Passivo Mobile Application | 77 |
| Figure 4. 3 | Home / Main Menu - The Interface in Designer Platform | 79 |
| Figure 4. 4 | Home / Main Menu - the coding in Blocks Editor | 80 |
| Figure 4. 5 | Active Voice - The Interface In Designer Platform | 81 |
| Figure 4. 6 | Active Voice -The Coding In Blocks Editor | 82 |
| Figure 4. 7 | Passive Voice - The Interface In Designer Platform | 82 |
| Figure 4. 8 | Passive Voice - the coding in Blocks Editor | 83 |
| Figure 4. 9 | Short Answer Questions - the Interface in Designer Platform | 84 |
| Figure 4.10 | Quiz 1 : Answers Feedback - Interface in Designer Platform | 85 |
| Figure 4.11 | Quiz 1 : Total Score and Button to the Next Quiz in Designer Platform | 85 |
| Figure 4.12 | Total Score and Button to the Next Quiz in Designer Platform | 69 |
| Figure 4.13 | Quiz 1 - the Coding in Blocks Editor | 86 |
| Figure 4.14 | Quiz 1 : Answers feedback - the coding in Blocks platform | 87 |
| Figure 4.15 | Quiz 1 : Total Score and Button to the Next Quiz -the coding in Blocks platform | 87 |

| | | |
|-------------|---|----|
| Figure 4.16 | Quiz 2 - Interface in Designer Platform | 88 |
| Figure 4.17 | Quiz 2: Answers Feedback - Interface in Designer Platform | 88 |
| Figure 4.18 | Quiz 2: Answers Feedback - Interface in Designer Platform | 72 |
| Figure 4.19 | Quiz 2: Total Score and Button to the Next Quiz in Designer Platform | 89 |
| Figure 4.20 | Quiz 2 - the coding in Blocks platform | 90 |
| Figure 4.21 | Quiz 2 : Answers Feedback -the coding in Blocks platform | 91 |
| Figure 4.22 | Quiz 2 : Total Score and Button to the Next Quiz -the coding in Blocks platform | 91 |
| Figure 4.23 | Quiz 3 - Interface in Designer Platform | 92 |
| Figure 4.24 | Quiz 3 : Answers Feedback in Designer Platform | 92 |
| Figure 4.25 | Quiz 3: Total Score and Result in Designer Platform | 93 |
| Figure 4.26 | Quiz 3 - the coding in Blocks platform | 94 |
| Figure 4.27 | Quiz 3 - the coding in Blocks platform | 78 |
| Figure 4.28 | Quiz 3: Answers Feedback -the coding in Blocks platform | 94 |
| Figure 4.29 | Quiz 3: Total Score and result -the coding in Blocks platform | 95 |
| Figure 4.30 | Info page - interface in Designer Platform | 96 |
| Figure 4.31 | Info page - the coding in Blocks Editor | 97 |
| Figure 4.32 | Feedback page - interface in Designer Platform | 97 |
| Figure 4.33 | Feedback page - the coding in Blocks | 98 |

LIST OF ABBREVIATIONS

| | | |
|------|---|--------------------------------------|
| CALL | - | Computer Assisted Language Learning |
| MALL | - | Mobile Application Language Learning |
| ESL | - | English as a Second Language |
| TAM | - | Technology Acceptance Model |
| TRA | - | Theory of Reasoned Action |

LIST OF APPENDICES

| APPENDIX | TITLE | PAGE |
|-----------------|---|-------------|
| Appendix A | Questionnaire | 136 |
| Appendix B | Validation Expert Form for Questionnaire | 143 |
| Appendix C | Validation Expert Form for Mobile Application | 144 |

CHAPTER 1

INTRODUCTION

1.1 Overview

The Technical-Vocational Education and Training (TVET) has become a preferred institution for the students to learn. As stressed by The Youth and Sports Ministry of Malaysia (2019), TVET industry has turned to have high demand from the industries as well as the tertiary students. It works parallel with the major advent of Industrial Revolution (IR) 4.0 where it equips the students with the knowledge and skills required at the workplace. Besides, TVET courses have encouraged the younger generation to sustain with the times and evolving technologies such as artificial intelligence (AI) and Internet of Things (IoT) (Wee KaSiong, 2019). The Ministry of Education has included the English syllabus as one of fundamental subjects to be learned by Malaysian students to be globally prepared with IR 4.0. as stated by Ahmed Ali et. al (2017), the language communication skills need to be embedded in every occupational standard in the recent TVET course because it helps them to interact effectively not only with their peers but also with their colleagues.

Moreover, as emphasized by Nabilah Abdul Suki et. al (2018), not only the mastery of English language among students should be highlighted but also among the educators in TVET. In addition, the pedagogical theory to teach the students to excel in a second language is seen as essential as it guides the educators to be well-prepared towards IR 4.0. As proposed by George Siemens in 2005, the connectivism theory is seen more relevant towards nowadays learning. The flexibility and dynamic learning has made other academicians to explore more in their current studies. It later developed into other approaches to learning, especially language learning. Therefore, a few so-called new learning processes have been introduced to facilitate the learning of a second language.

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From the introduction of Computer-Assisted Language Learning (CALL) to the blended learning and the latest, mobile learning, it has been established that technology is encouraged and beneficial in language learning. In order to adhere to the implementation of blended learning, diverse technological tools and platforms have been used in the polytechnic settings. The use of Massive Open Online Learning (MOOC) as an online learning platform for English for TVET course was one example that was implemented at the polytechnics in Malaysia (S. Thivviah Sanmugam 2018).

1.2 Problem Background

With the emergence of technology in education, learning theories are evolving swiftly. The latest expansions and existing of the internet in our daily life have gradually changed the teaching and learning process fundamental. The behaviorism, cognitivism and constructivism have slowly been taken over by the theory of connectivism. If previously constructivism was understood to allow the learners to construct their own knowledge through experience and reflection, the latter, connectivism, aims to redefine learning within diverse aspects where it combines the reminiscent of constructivism into the learning of digital age (Archana Shrivastava, 2018). Through the learning using technology, they feel that they become not only self-regulated but also self-motivated. In addition, this theory believes that learning has no boundaries compared to the traditional way.

Learners have become active consumers of information. They are no longer relying on limited information. It is in contrast with students of former generations where they are bound to the educators as their primary source of information. Driven by the curiosity for everything, application of technology in education is believed the best thing invented and the fact that it has shown greater impact to the students (Zulkifley Mohamed, 2018). From the first use of Computer-Assisted Language Learning (CALL) in the English as Second Language (ESL) learning in the classroom over the past decade, it provided meaningful teaching and learning experience towards both teachers and students (Kenneth Beare, 2019). However, the use of CALL was not given too much exposure during that time. Moving forward, the use of social media in education has become a popular and effective methodology among students. They feel enthusiastic as social media offers learning in an informal way which allows them to be more appreciated and committed in learning (Dabbagh and Kitsantas 2011). In a way, they could improve their communicative skill in language learning through writing skills. Nonetheless, the use of correct English grammar was not really emphasized in this method. Later, the Flipped Classrooms and Blended Learning are some trending and recent methods used in the classrooms. They both cater the resolution for both students and educators in a new way of learning (Muhammad Anwar, 2019). However, the use of websites was claimed to be one way learning which is not interactive and thus less effective for the students to learn language.

The theory behind today's learning language requires the students to be the active participants, meaning it should be in two-way learning. Besides, they need to be interactive, communicative with other learners; self-regulated in which they could determine what they want to learn; and they need to be collaborative with the educators as well as the other students. (Archana, 2018). It is proved by the theory that every student has a different ability of learning language. Some researchers believe that to understand the barriers in learning a second language, it is necessary to concentrate on individual differences. Thus, the success of language learning is due to cognitive and also effective, motivational, personality and demographic factors of the learners. (Shiva Azadipour, 2019).

This supports the theory of connectivism that aligns with the intense use of technology in education. The connectivism learning theory ideologies revolve with network, intricacy, and self-organisation. (Richard E. West, 2017). It is proposed as the suitable and sufficient theory for the digital age where the technology executes many cognitive operations previously performed by the learners (Joao Mattar, 2018). In addition, connectivism theory helps to promote collaborative learning and, critical thinking in which the higher order thinking skills are stimulated when learners can differentiate which of the information available online are reliable (P. Tafor, S. Geier, E.N. Ogunmuyiwa, R. Addo-Tenkorang, 2016).

Communicative English was introduced by the Malaysian Polytechnic as one of the prerequisite subjects that should be learned by the students before they are allowed to undergo their industrial training. Highlighting on the TVET skill, the students are expected to learn communicative skills that are required in the workplace ranging from speaking, writing, reading to listening skills. This equips them to have the required knowledge and thus, helps them to interact effectively in their future workplace (Ayuni, 2018). One of the topics in DUE30022 – Communicative English 2, is teaching process and procedure is Passive Voice. Technically, passive voice is used when the action or the verb is emphasized rather than the subject. In teaching English as a second language, the teachers have been experiencing the students who have the difficulties to understand Passive Voice.

As stated by S. Thivviah Sanmugam and Liyana Ibrahim (2018), the use of technological tools in teaching and learning has become a major trend among the educators as to equip them towards the Industrial Revolution 4.0. The application of technology in learning sessions has tremendously given advantages to both educators and students where the research by Alqahtani Mofareh (2019) found that the advent of technology in teaching learning has shown a big impact in education. Apart from having the characteristic of students-centric, it also encourages collaborative learning among students. Uswatun Hasanah (2017) also supported the effectiveness of using technology in learning. Through applying the Quiz Game method in teaching the passive voice among the students, it helps them to learn collaboratively and independently. Although it was claimed in the study that some less proficient students

were left behind because they could hardly catch up the lesson, however, some of them who were proficient in English compensated for the weakness by helping them to complete the task.

Although there were a number of technology tools introduced to help in learning Passive Voice, there were still some issues faced by the students to learn that. Dr. Karim Shabani (2016) stated that eventhough the findings of the use of technology-enhanced methods such as PowerPoint and form-focused strategies were positive, however, some of the beginners still had problems making use of the tool as they were not familiar with that. Xiaojun Chen (2016) claimed that although there were multiple channels and modalities for language learning especially for the adult learners, there was no single language learning application that could provide a one-size-fits-all solution to meet adult learners' language learning needs.

Through teaching and learning the passive voice in academic writing discourse so much so has given the educators an insight of what makes the students struggle in comprehending the passive form. Su-Hie Ting's (2011) analysis found that the overgeneralization of the past participle such as '-ed' made by the students were common. Besides, she also highlighted that some students were not sure of the difference of past tense in active voice and the past participle in passive voice.

As stated by Scholastica (2018), although all the students were equipped with the textbooks of English subject, they still could not really produce the correct Passive Sentence due to little detailed guidance in the textbook and, also inadequate communicative activities conducted in the class. Besides, according to Yannuar (2014) passive voice is confusing to some students because they found that it is hard to comprehend the rules and formula as it is dissimilar to the Active Voice.

Confusion of the Passive Voice due to the complexity of rule has not only occurred among non-native learners, but also occurs to the native speakers. (Paul Mathieson, 2017). Afraid to make mistakes in their writing, some students tend to avoid the use of Passive voice in their writing exercise. Consequently, their writing may sometimes seem basic and unsophisticated.

Based on Paradise Princess, Saunir Saun, Aryuliva Adnan (2018), Passive Voice is commonly adopted in formal writing and scientific writing. Meanwhile, academic writing is closely related to formal style writing which is used for scientific purposes. The passive voice is frequently used in these scientific works.

There are some problems dealt by the students in using Passive Voice. First, to transfer information from linear to non-linear form and vice versa, they need to understand the grammatical structures used in changing the active voice to the passive voice. Therefore, the teacher needs to introduce them with Active voice. Based on the observation done (Vicky Fawzah, 2017), students seemingly did not understand the structure in Active Voice. They were not sure which belongs to the subject, the verb, and the object. Of Active Voice technically, the subject of the sentence, also known as the agent, performs the action. Therefore, the subject is placed at the beginning and followed by the verb (action) and later the object, which receives the action. Meanwhile, in Passive Voice, the action is emphasized in the sentence. In another word, the subject receives the action.

The changes in the structure of Passive Voice sometimes lead the students in confusion. They are not sure how to change the structure of Active Voice (Subject (S) + Verb (V) + Object (O)) to Passive Voice (Object (O) + Verb (V) + by + Subject). They find it is difficult to change the verb into participle such as draw – drawn. They misunderstand that some participle in Passive Voice that spelled –ed at the back is past tense (Hakeem, 2015).

Some students think that every sentence can be changed to Passive Voice. They simply change everything to Passive Voice without looking at its structure in Active Voice. This contradicts with the rules of Passive Voice. The sentence that contains intransitive verbs such as sleep, go, shower and die cannot be converted into Passive Voice.

Apart from that, students will be getting more confused especially dealing with the object complement of a sentence. They are not confident to change these sentences into Passive Voice and not sure to place the complement in the Passive sentence. For example:

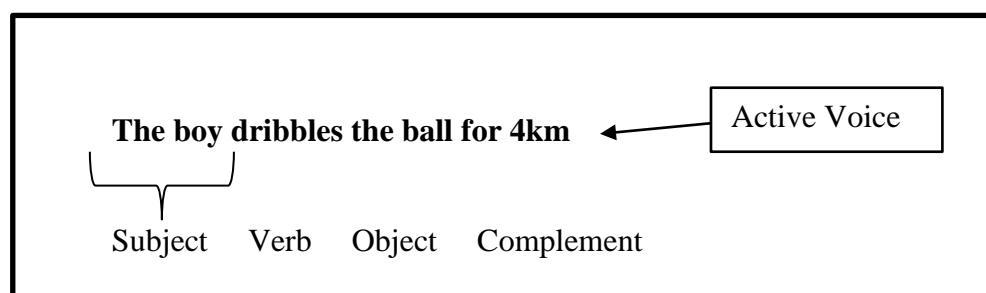


Figure 1. 1 The Rule of Active Voice

The implication of learning if they do not master the topic is quite worrying. This is due to effective speaking and writing skills being crucial at workplaces as they convey correct and good information to the others. Misunderstanding and confusion could be avoided and at the same time it complies with the workplace Standard of Procedure (SOP).

Few approaches have been made to overcome the problem. Scholastica (2018) used the effective strategy by using the daily diaries; in-class observation and think aloud protocol to help the students to express their opinion on learning passive voice. Meanwhile, through collaborative learning method by Sebastiao Pereira (2019), it was proved that through cooperative learning by having peer and group learning of passive voice beneficially helped the students to gain more understanding of the topic. Similarly, in the Extended Instruction treatment by Audrey Bailey (2016), she conducted the intensive English class for the students. She stated that the use of the approach assisted the students to use the Passive Sentence appropriately. However, as the learning approach evolves from time to time, new advanced and technological-oriented teaching methods for learning passive voice need to be enhanced.

Therefore, the introduction of Mobile-Assisted Language Learning (MALL) provides better access for students to learn language autonomously in their own way

(Ramya Gangaiamaran, 2017). It has evolved with the expanding use of mobile technology devices such as laptops, mobile phones and tablets to enhance teaching and learning. The unique features such as ubiquitous and practical endorse the use of MALL among students. However, there were main issues highlighted from the application of MALL. It was doubted that this application was suitable for every age group. Besides, the consistency of the picture quality in the tablet was not stable due to poor quality of the picture displayed. Hence, the improvement of Mobile-Assisted Language Learning (MALL) especially the mobile application needs to be enhanced from time to time so that it could assist the ESL learning, especially the passive voice.

1.3 Problem Statement

The problem of learning passive voice has been highlighted in recent years as one important issue arises in teaching and learning of 'Processes and Procedures' topic. Students of ESL or non-native speakers face difficulty dealing with the passive voice structure as they are confused with the tenses used in the sentence. Apart from that, they are not sure when the passive voice rule should be applied.

When the students lack understanding of passive voice concepts, they tend to avoid using passive voice in their writing discourse. This therefore could affect their style of writing especially in writing the process and procedure. Since the passive voice topic is not an easy topic to learn, the existing technology tools used in the language learning is an attempt that has helped the educators in teaching and learning in passive voice.

This arising issue has been analysed and looked in depth. Apart from practices and drilling exercises given in the class, a solid theoretical framework of Connectivism theory has been integrated so that it can be used in the teaching and learning process, namely in Passive Voice. It works as the methodology in delivering the knowledge and information in the digital age (Suzanne Darrow, 2009).

The new era of teaching and learning through integration of Information Technology or the internet is considered as the future of education. It has created the opportunity of learning among the students through acquiring the information on their own and presenting it in a discussion with the others (Adrianna & Mark Camilleri, 2019).

One apparent example is through educational mobile applications or mobile apps. The use of mobile applications has been introduced in passive voice learning as an alternative approach to traditional ways of learning. Nevertheless, the limitations found while using the tool has seemingly caused the teaching and learning session to be interrupted. There are limited numbers of mobile apps that highlight the topic of Passive Voice. One example is 'Voice Change' apps, where it explains the rules of Active Voice to Passive Voice. However, there are limited examples of the apps that lead to poor review by the students.

It is interesting to see the overwhelming numbers of learning applications of any subjects are available for all the students to learn. As highlighted by Naincie Pindoh (2016) the use of mobile apps in learning language can be perceived beneficially in a way that the features of the mobile application stand out more compared to the conventional learning. It is expected that another mobile application for passive voice learning should be developed to enhance the teaching and learning. It is hoped to be more effective than the existing passive voice applications.

Therefore, through the development of the mobile application, Passivo, it can be seen as one of the alternatives in learning Passive Voice in Processes and Procedures topic. The aim of this research is to develop and investigate the effectiveness of mobile application – Passivo in passive voice learning compared to traditional learning.

This application aims to help students to track and store their learning progress. In addition, it is expected to enable students to learn from anywhere at any time at their own pace. Besides, the attractive layout design plans to trigger students' interest to read and learn more from the internet. The user-friendly interactive buttons and activities provided in the apps intend to help the students to enjoy their learning.

In a nutshell, the use of the Passivo mobile application is hoped to be an effective solution to the issue where it could motivate the students to learn passive voice. Apart from that, it is expected to lead to positive perceptions among the students in terms of ease of use, usefulness and attitude.

1.4 Research Objectives

The objectives of this study are as follow:

- (a) To develop the mobile application – ‘Passivo’ that can be used by the students.
- (b) To investigate the effectiveness of mobile application – Passivo in passive voice learning in terms of promoting active learning and learner motivation among students.
- (c) To identify any significant difference in scores between using ‘Passivo’ apps and traditional instruction among semester 3 students.
- (d) To identify the students’ perceptions towards using ‘Passivo – Passive Voice’ apps in learning Passive Voice in terms of:
 - i. ease of use
 - ii. usefulness
 - iii. attitude

1.5 Research Questions

These are the research questions for this study:

- (a) To what extent does Passivo mobile application promote active learning and learner motivation among students compared to traditional learning?

- (b) Is there any significant difference in scores between using 'Passivo' application and traditional instruction among semester 2 students?
- (c) What are the students' perceptions towards using 'Passivo – Passive Voice' apps in learning Passive Voice in terms of:
 - i. ease of use
 - ii. usefulness
 - iii. attitude

1.6 Research Hypotheses

Corresponding to the research questions given, there are four hypotheses of the study in order to direct the thought process towards the solution of the research problems. The hypotheses are as follow:

- (a) Ho1: There is no significant difference of scores between Passive Voice pre-test and post-test for control group among semester 2 students of Polytechnic in Johor Bahru.
- (b) Ho2 There is no significant difference of scores between Passive Voice pre-test and post-test for the treatment group among semester 2 students.
- (c) Ho3 There is no significant difference of Passive Voice pre-test scores between control and treatment group among semester 2 students.
- (d) Ho4 There is no significant difference of Passive Voice post-test scores between control and treatment group among semester 2 students.

1.7 Significance of the Study

The findings from this research will provide the meaningful insights of mobile application in mobile learning to the stakeholders of higher education. In other words, this research will be beneficial for the individual level, organizational level, and the national level. In a nutshell, this research will be useful to the educational organization on the relationship between technology incorporation and pedagogical innovations.

1.7.1 Individual Level

This research is expected to trigger students' interest to learn English passive voice using mobile applications. Over the years, most studies have found that students have the issue in learning passive voice as they have the mindset that English passive voice is difficult to understand, and therefore, it hinders them to do well in writing and speaking (Muhammad, 2014; Somphong, 2013). Introducing an alternative way of learning passive voice could be a suggestion to overcome the problem. This goes in line with the pandemic season which requires the students to be adaptive by integrating the technology in their learning. Therefore, by using the Passivo mobile application to the students, it could help them to learn passive voice effectively. In a way, students can learn more efficiently and productively, enabling them to have more time for exploring and leisure. This research also highlights the students' acceptance towards Passivo mobile application in terms of perceived ease of use, perceived usefulness, and students' attitude.

The findings of this research could help to shed light on using mobile applications (technology tools) on assisting the English teachers to apply an alternative resolution to the problem in teaching English passive voice. The teachers could enhance and improve the English language learning approach or methodologies, especially the knowledge about using mobile applications, one of the technology tools, in teaching and learning. It is hoped that this approach could enlighten the students and the educators about the significance of mobile learning, specifically mobile application in English.

In addition, this research is also anticipated to give insight to the future researchers as a reference in extending their studies on the related topic.

1.7.2 Organizational Level

Technology in teaching and learning has given a positive impact and advantageous over the traditional way of teaching and learning. The flexibility of the technology enables the students to enjoy the quality access of teaching and learning everywhere and anywhere. For organisational level, the findings from this research could help higher education to plan their strategies to support and motivate the educators to integrate more technology in their teaching, specifically mobile application in order to prepare them to cope with any changes in teaching and learning process.

Passivo mobile application use is hoped to improve the quality of learning English, to broaden the access to education and training. For the organisational level, apart from responding to the technological imperative, implementing learning using mobile applications could help to decrease the cost of education. Exercise or quiz can be given through the mobile application without worrying about the cost compared to paper-based exercise or quiz. In addition, introducing mobile learning in teaching and learning could help the university to achieve its educational mission and goals of quality and cost effectiveness.

Besides, it is hoped that the findings of this research could enlighten the organizational leaders to identify any possible barriers when planning, implementing and assessing the mobile application use in the class. Finally, it also provides useful guidelines for the management at the educational institutions to understand the determinants of usage behaviours in implementing mobile learning.

1.7.3 National Level

This research will contribute significantly to the findings on mobile application integration and the influence on pedagogical practices in teaching and learning English at national level. Besides, the policy maker at Malaysian of Higher Education (MOHE) could take into the consideration of technology integration on using the mobile application in national education policy (Lu H.Y., 2013). Likewise, this research finding could improve the recent body of knowledge in a similar field.

With the rising demands of technology integration, especially mobile learning towards Industrial Revolution 4.0 (IR 4.0), the research findings could provide insights to any interested educational stakeholders to empower mobile learning as a method of ubiquitous learning. This can be a useful guide for them especially in technology investment to enhance the teaching and learning.

1.8 Research Scope and Limitation

This research aims to identify the effectiveness of using Passivo mobile application in learning English. This mobile application is designed for tertiary level students which only cover the passive voice subtopic in Process and Procedures topic from Communicative English DUE30022 and does not cover other topics under the course.

This research targeted semester 2 students from a southern polytechnic of higher institution in which it will be conducted to 10% of the total population of semester 2. They learn passive voice, one of the subtopics in Communicative English DUE30022. The research will cover eight weeks where it will be carried out at the middle of the semester as it is the second topic of the course. Apart from learning the topic in the semester, they are also chosen in this study because they are experienced users of the internet and have a familiar background with mobile applications.

Nevertheless, this research has potential limitations. The sample chosen for the research may be subjected to bias issues as the researcher would be biased while selecting the respondents, such as not considering some sample's familiarity with the use of mobile application and the internet accessibility. It therefore would bias the results of the analysis toward the null hypothesis. Besides, this research focuses only on semester 2 students as passive voice topics are only taught for semester 2 students.

1.9 Conceptual Framework

Conceptual framework involves a collection of concepts which combines the main construct or variable of a research connected to each other that is studied by the researcher (Norfadzilah, 2016). Figure 1.2 illustrates the conceptual framework of the research that show input refers to Passivo mobile application that is used as learning instrument of passive voice in the research. The pre-test will be implemented after the input to both groups (experiment and control group). Meanwhile, process refers to the works in treatments for learning passive voice where they are conducted in experiment group and control group. In experiment group, the Passive mobile app is used among the students. In this group, it is divided more into two parts, namely; students, the users of Passivo mobile application; and also, the mobile application, where it is injected with the Connectivism theory. There are three principles selected under this theory; they are; learner motivated, active learning and collaborative learning. Meanwhile, the conventional method is used in the control group. Apart from that, output indicates the students' understanding of passive voice through the post-test given.

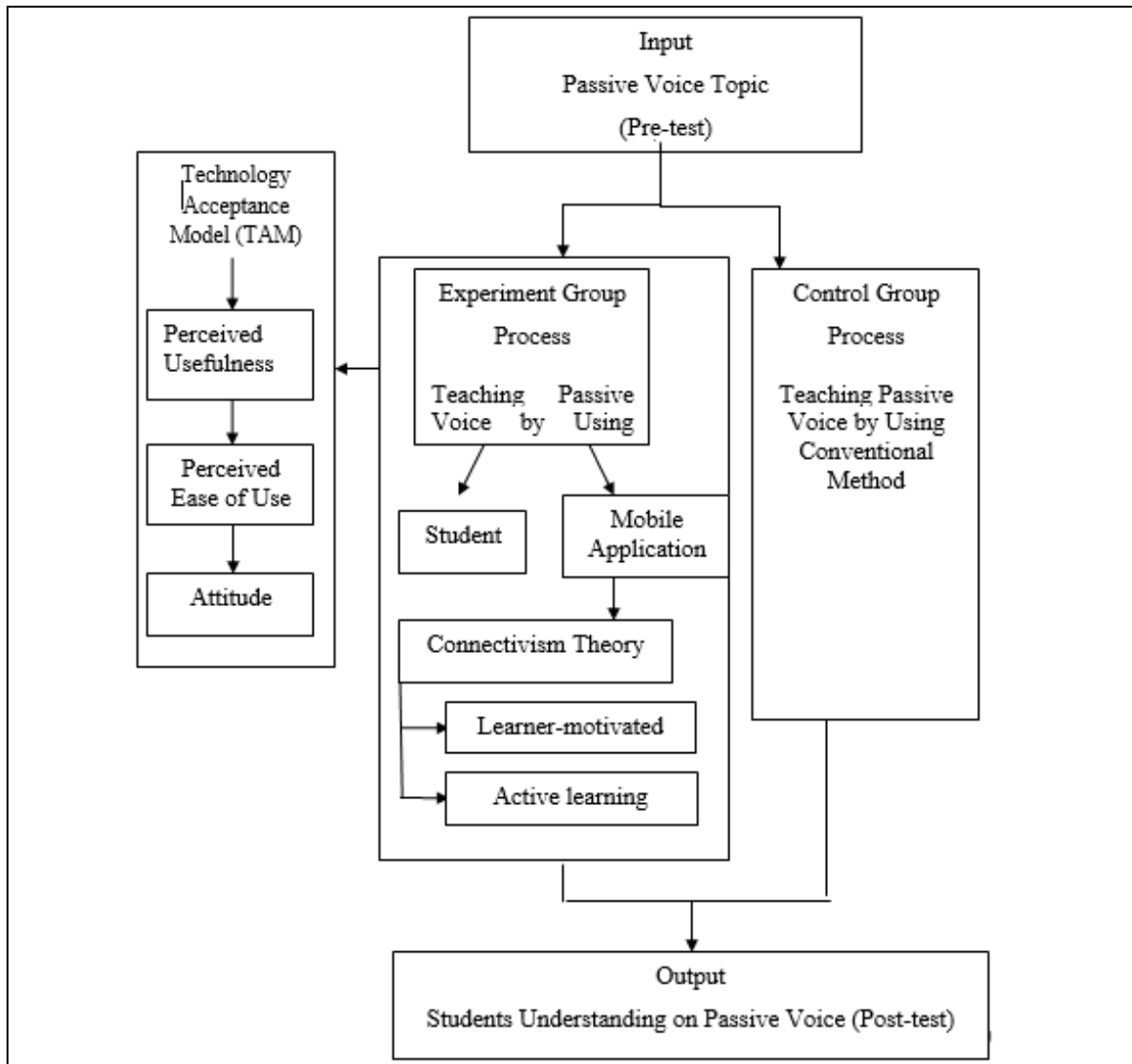


Figure 1.2 Conceptual Frameworks on Technology Acceptance Model

This conceptual framework is adapted from TAM by Fred Davis in 1989. It is applied towards the experiment group to investigate students' perceived usefulness, perceived ease of use and attitude towards Passivo mobile application in learning passive voice.

1.10 Operational Definition of Key Terms

The operational definition of key terms explained in this part is based on the research suitability; therefore, it could avoid confusions and misleading understandings by the readers. The operational definitions listed aim to assist the readers to understand the meaning of certain terms used in this research.

1.10.1 English as a Second Language (ESL)

It is the term that refers to students who learn English in school/college/university as the second language. Normally, it is applied to the country that English is not their first language or mother tongue. Malaysia is one of the countries whose English is declared as a second language after Bahasa Melayu; the official language. In Malaysian education policy, English is placed as a compulsory subject at all levels of education indicating that it goes in line with the first language in which sometimes it is used in official functions (Darmi R. & Albeon, P., 2013).

In this study, ESL is taught as a Communicative English subject that is a compulsory course from semester 1 until semester 3 in the Polytechnic system. In this study, the subject highlighted is DUE30022 Communicative English 2 and it is taught for semester 2. This subject comprises fundamentals of English language for technical purposes and passive voice is one of the subtopics included.

1.10.2 Mobile Application

Mobile application can be defined as a software application that is created to run on mobile devices for instance, mobile phones, tablets or notebooks (Ozturk, Y., 2017). It is used in many activities such as mobile banking, shopping including education.

Educational mobile application is one type of educational application used in mobile learning to teach students. It allows ubiquitous learning where accessibility and flexibility are the main highlight in this approach. Mobile learning refers to a method of learning that concerns learner mobility; that is, learners are able to engage in the educational process without the limitations of learning in tightly surrounded physical location (Amer MA, 2010). Besides, mobile learning occurs when learning opportunities are offered through mobile devices. In general, mobile learning refers to the learning process that happens when the students interact with a device such as mobile phones, laptop, or tablets. This learning process can take place in a formal way, as within the classroom context, or informal way, when the students choose what and when to learn.

In this study, Passivo mobile application is introduced to the students as an alternative approach to learn passive voice. Students will be exposed to the use of this mobile application including the exercise throughout the study. They are required to use this application in the class or outside the class. It aims to what extent Passivo mobile application can be used effectively in learning passive voice whether in the class or outside the class.

1.10.3 Passive Voice

Passive voice refers to a grammar structure when the object of an action in Active Voice turns into the subject. According to Allen & Elizabeth (2014), passive voice can be identified by the readers as the verb phrase will always consist of forms such as am, is, are, was, were or been. However, the presence of the be-verb does not necessarily represent the sentence in passive voice. Apart from that, a passive voice structure can also be identified through the inclusion of the phrase “by the...” after the verb. This means that the doer/agent which performs the action in active voice will be changed to the object of the phrase in passive voice.

In this study, passive voice is one of the subtopics that is included in the topic of Processes and Procedures. It is taught to explain to the students that some procedures

or instructions are meant to be explained in passive voice. It is due to passive voice emphasis on the action rather than the doer. Some students are confused with the use of passive voice in processes and procedures, and it is taught in quite limited periods of time. Therefore, the Passivo mobile application is introduced to them as an alternative and meaningful way to understand it.

1.10.4 Connectivism Learning Theory

Connectivism theory believes that learning can occur from the outside. According to Shrivastava, A. (2018), connectivism is the subsequent of the previous learning theories of behaviorism, constructivism, and cognitivism, which is known as a learning theory for the digital age. It is more student-centered, and output driven where focusing on developing proficiencies and skills rather than constructing knowledge that has no application aspect. Siemens (2005) listed the key features of learning according to connectivism theory; 1) knowledge is applicable; 2) learning is a continuous process and sustainable. 3) Decision-making is one part of learning process; 4) instilling and maintaining connections, which involves active learning; 5) Learning and knowledge lie in diversity of opinions where they boost up learners' motivation; 6) the capability to discover more knowledge is more critical than what is recently known; and 7) the learning contents are all related to each other, accurate and up-to-date up to date.

In this research, two features of connectivism theory will be focused. There are; learner motivation and active learning. They are highlighted due to mutually related to the focus of the research and its objectives. The content of the Passivo application will be constructed based on two features mentioned before. The activities for passive voice in Passivo application allow the students to do the activity at their own pace and reflect their own learning. They can actually learn independently in which if they make mistakes on the activity, they can prompt themselves to try until they manage to find the answers. From there it indirectly encourages students to engage in the learning process, namely in learning passive voice.

Meanwhile, the notes and the interactive activity provided in the application are the elements that could motivate the students to use the Passivo application. Concise notes with simplified concepts of active and passive voice formulas are highlighted in the Passivo application so that the students could understand better. Plus, attractive layout and design are the other factors that draw students' attention to use it.

1.10.5 Perceived Ease of Use

Perceived ease of use is one of the factors that included in technology Acceptance Model (TAM). This factor refers to the extent an individual thinks that a use of a system is convenient and not difficult to learn. (Davis, 1989). It affects the perceived of usefulness. In the Passivo mobile application context, perceived ease of use here means that students do not need to use a lot of effort; time and energy in learning English passive voice using mobile application.

1.10.6 Perceived Usefulness

Usefulness refers to what extent an individual believes that using a system will improve his/her work performance (Davis, 1989). It is a crucial factor to determine adaptations of innovations where it acts as one determinant of behaviour that enables the users to use more innovative technology. From the definition, this research intends to investigate the perceived usefulness among students in using Passivo mobile application; to what degree it could improve their learning performance and effectiveness.

1.10.7 Attitude towards Technology

TAM defines the students' attitude towards accepting or rejecting the use of technology. The attitude factor is one aspect that influences a user's attitude towards

technology, where it is initially influenced by the perceived usefulness and perceived ease of use of the system. In this research, students' attitude towards Passivo mobile application will be investigated based on their acceptance or rejection towards the use of this mobile application.

1.11 Conclusion

As a conclusion, this chapter explains the problem background and problem statement of the research. It highlights the problems of passive voice learning among ESL students and the use of technology tools, specifically the mobile application in learning passive voice. Then, the suggestion of Passivo mobile application use for passive voice topic is introduced in this research. Besides, the objectives and research questions are also justified. It aims to measure the effectiveness of Passivo mobile application in terms of the Connectivism theory principles and also to see the students' perceptions under the Technology Acceptance Model (TAM). Every procedure is taken for the purpose to reach the objectives. Next chapter will discuss the review of the literature and matters that are related to the mobile learning application that underlies this research.

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