

BASIC SIGN LANGUAGE FOR KIDS (INTERACTIVE VIDEO)



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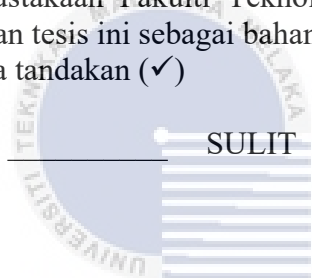
JUDUL: BASIC SIGN LANGUAGE FOR KIDS (INTERACTIVE VIDEO)

SESI PENGAJIAN: [2020 / 2021]

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BASIC SIGN LANGUAGE FOR KIDS (INTERACTIVE VIDEO)

SITI NURFAHIN BINTI MOHAMED YAZID



This report is submitted in partial fulfillment of the requirements for the
Bachelor of [Computer Science (Interactive Media)] with Honours.

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA

2021

DECLARATION

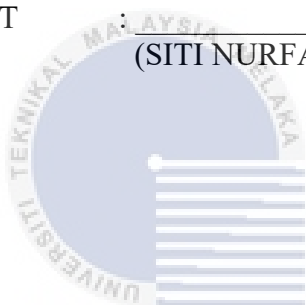
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Date : 1/7/2021

DEDICATION

This final project is dedicated to my parents, family, and friends who have supported me with inspiration and support to finish the final project.

Many gratitude to my supervisor, Prof. Dr. Faaizah binti Shahbodin, for her assistance me in finishing this final project.

Most importantly, I'd like to thank Allah SWT for providing me with the wellbeing and motivation to finish this final project.

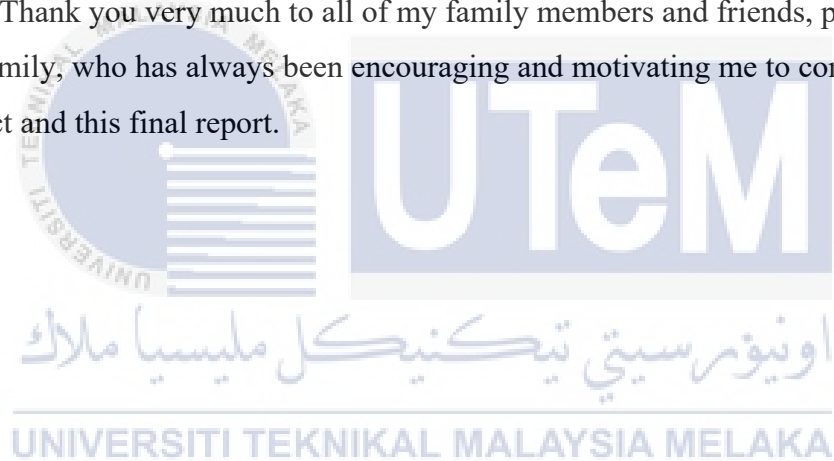


ACKNOWLEDGEMENTS

In the name of Allah the Most Merciful, Peace and blessings be upon Prophet Muhammad, and beloved companions. Thanks God, because with His kindness and mercy, I can complete this final project well.

Thank you as well to the lecturers of Universiti Teknikal Malaysia Melaka (UTeM), especially my project supervisor, Prof. Dr. Faaizah binti Shahbodin, who assisted me in successfully completing my final year project and conducting this lesson from the very first month of the whole semester until the end of semester.

Thank you very much to all of my family members and friends, particularly to my family, who has always been encouraging and motivating me to complete the project and this final report.



ABSTRACT

There are now a multiplicity of video channels available for children and adults of all ages to learn sign language. The goal of this project is to concentrate and highlight the main theme of the courses without taking up additional time. It will assist the user or student in participating in the class while also allowing for a more personalized learning experience. A video, for example, may contain a longer timeline and way too much irrelevant content for each lesson. The aim of this project is to create an interactive video for academic purposes. As a result, the student can shorten and accelerate up the current period for each session. For instance, a user or viewer can select and point to a specific exercise by clicking a clickable button. Previously, the user would have difficulty distinguishing the primary topic of the instruction during video sessions. Additionally, the lengthier period per video results in a lengthier time to complete a single session. The objectives of this work is to produce an interactive video that makes it easier for people to utilize the program by adding more practical and user-friendly elements. The project's plan also includes determining the interactive video component that will be used in the learning modules. For example, the user can choose to learn a specific topic in any chapter without having to spend a lot of time on it. As a result, this effort will be used to interact with a deaf person or a society that is hearing-impaired.

ABSTRAK

Kini terdapat banyak saluran video yang tersedia untuk kanak-kanak dan orang dewasa dari semua peringkat umur untuk belajar bahasa isyarat. Matlamat projek ini adalah untuk menumpukan perhatian dan menonjolkan tema utama kursus tanpa memerlukan masa tambahan. Ini akan membantu pengguna atau pelajar untuk mengambil bahagian dalam kelas sambil juga membolehkan pengalaman pembelajaran yang lebih diperibadikan. Sebagai contoh, video mungkin mengandungi garis masa yang lebih panjang dan terlalu banyak kandungan yang tidak relevan untuk setiap pelajaran. Tujuan projek ini adalah untuk membuat video interaktif untuk tujuan akademik. Hasilnya, pelajar dapat memendekkan dan mempercepat tempoh semasa untuk setiap sesi. Sebagai contoh, pengguna atau penonton dapat memilih dan menunjuk latihan tertentu dengan mengklik butang yang dapat diklik. Sebelum ini, pengguna akan mengalami kesukaran untuk membezakan topik utama arahan semasa sesi video. Selain itu, tempoh yang lebih panjang bagi setiap video menghasilkan masa yang lebih lama untuk menyelesaikan satu sesi. Objektif kerja ini adalah untuk menghasilkan video interaktif yang memudahkan orang menggunakan program dengan menambahkan elemen yang lebih praktikal dan mesra pengguna. Rancangan projek ini juga merangkumi penentuan komponen video interaktif yang akan digunakan dalam modul pembelajaran. Sebagai contoh, pengguna boleh memilih untuk mempelajari topik tertentu di mana-mana bab tanpa perlu menghabiskan banyak masa di dalamnya. Hasilnya, usaha ini akan digunakan untuk berinteraksi dengan orang pekak atau masyarakat yang cacat pendengaran.

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LIST OF ABBREVIATIONS

FYP - **Final Year Project**



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Google form	86
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CHAPTER 1: INTRODUCTION

This chapter introduces the project by providing context details, project statements, project objectives, project duration, planned results, and a conclusion.

1.1 Background

In verbal word, words are created by using the voice and sound to create sounds. But for the people who are deaf especially those who are deeply deaf, these sounds of words are often not seen, and just the portion of speaking sounds will be seen on the lips. Sign languages are from the idea that experience is the most important way the deaf person has to convey and get knowledge. When deaf human beings have been first protected within side the instructional technique they have been concept to have cognitive improvement problems and as a result that their situation became related to a cognitive problem. But the reality became that this took place because of the few stimuli received, the issue of verbal exchange among deaf and hearing human beings, and as a result the issue in know-how transmission. There are numerous signal languages, local languages of the deaf network of every country. The proposed worldwide signal language consisted of a choice of easy-to-research gestures from diverse signal languages.

E-learning allows apprenticeship at the same time as the use of the Web as a dissemination channel. While it lowers many access barriers, especially geographical and time-related, in addition to extra foundation on written substances over spoken ones, by itself it does now no longer resolve the problem of improving inclusion of college students no matter their sensory, cognitive or practical abilities.

Currently, there are numerous video channels for learning sign language for children and other individuals of all ages. The aim of this project is to focusing and highlight the key topic of the lessons without consuming more time. It will helps user or learner to participate in the lesson along with enable a more personalized learning experience. Primarily, a video might have a longer timeframe and way too much unnecessary information for each lesson. The objective of this project is to develop an interactive video for learning content. Therefore, learner able to shorten and speed up the time period for each of the lessons. For example, user or viewer can click a clickable button to choose and point up the specific exercise.

Formerly during the sessions thru videos, the user will encounter difficulties in identifying the key topic of the tutorial. Together with the longer timeframe per a video, which result in a longer amount of time to finish a single lessons. The purpose of this project is to create an interactive video that makes it easier for users to use the program with more practical and user-friendly features for effective learning. In addition, the project's plan is to determine the interactive video feature required to be used in the learning lessons. For instance, the user can choose to learn a particular topic in any chapter without having much longer time to understand. As a result, this initiative will be used as an opportunity to interact with a deaf person or a hearing-impaired society.

1.2 Problem Statement

As we were aware, video offers a practical teaching environment that helps learners understand and recall knowledge more effectively than listening and reading practices. Nonetheless, a prolonged and unrelated video that appears may be of no interest to children, and users may become easily distracted. As a consequence of the shortage of interactive features to draw the learner's attention, this would take the learner hours to watch the entire video. As a result, through the use of a clickable feature in the video, students can easily customize their educational experiences. This study aims to increase users' awareness and make it even more friendly and accessible for people of all ages.

Furthermore, most of the children and learners struggle to identify the main point of the lesson in the video. Further to that, the duration of a video has often been long than intended, making it difficult to miss insignificant sections of a video lesson. Even the most important aspects of the videos can be missed by the learner. For a deeper understanding, learners must eventually devote more time to viewing and rewatch the video. This will render the lesson longer and more complicated than necessary. Furthermore, users will not be required to explain the key point of the lessons without going for a longer period of time in a single session. As a result of break down the focus into smaller pieces and emphasizing the main points of the subject, the learners' anxiety and strain will be reduced. Users, for example, can decide and instead choose to watch some content that they'd like to understand without wasting energy watching a longer video. This project would be able to involve the learner and keep them interested in learning while also shortening the learning lessons.

As a result, using an interactive video as a learning platform would have a significant influence on improving the audiences, especially young children. Allows users to interact with the video content itself through with a variety of interactive elements and responsive features. Furthermore, interactive video will have a more customized learning experience and more options for the learner, resulting in a more immersive conscious information than using a linear video. This could also have a huge effect on perceptions by transferring new knowledge to the student's long term memory and freeing up time for content that the learner can need to research more thoroughly.

1.3 Objectives

The objectives of this project are as below:

1. To identify the interactive video element needed for basic sign language for kids.
2. To develop an interactive video for basic sign language using element specify in objective one.

3. To measure the user satisfaction on the basic sign language for kid interactive video.

1.4 Project Scope

This project's target users are those who want to learn sign language as part of getting engaged with various individuals in the deaf community and building connections with new people. This project is mainly open to people aged 7 to 15 years old. Furthermore, this project will include some features that will enable users to practice their skills and interact with the project. Furthermore, this project will provide features that enable users to easily learn skills and interact with the disabled community. The software used for this project are adobe animate, adobe illustrator, adobe photoshop and google chrome. Moreover, the hardware used is a laptop.

1.5 Project Significant

This project gives significance to the targeted user by using the e-learning interactive video as a tool for teaching and learning sign language in order to have a better and more enjoyable learning process, as well as a way to customize the course of their desires. Owing to its ability to monitor and make choices about what happens on screen next, users can also strengthen their skills and techniques of communicating with the deaf culture with the summative assessment. This project would be able to develop successful methods for keeping learning meaningful and entertaining. Furthermore, it is undoubtedly a valuable method that capable of engaging learners with content in an interactive video, increasing a user's likelihood of learning.

1.6 Conclusion

Finally, people of all ages will be able to learn the skills and techniques needed to communicate using sign language as a medium of communication in the form of

this project. This project will result in an amusing interactive video that allows the learner to customize the course based on their interests. Furthermore, the critical information of sign language can also be emphasized using minimum interactions, highlighting its relevance and making people more aware of it.

The introduction, project background, problem statement, objectives, and project scope are all included in this chapter. Furthermore, this chapter discusses the significance of the project. To establish this interactive video, we would have to be aware of the current scope, the observable goal, how else to solve the specified issue, and perhaps the most important aspect of these interactive videos. Furthermore, in Chapter 2, we will explain the methodology to use for this project as well as a literature review on previous articles related to this project.



CHAPTER 2: LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

This chapter discusses the literature review involved in conducting this project. To achieve the objectives on the project and let the process go smoothly, better understanding of concept and technique must be clear so it will be achieving easier.

Literature review is involved in collecting data from related published information and materials from anywhere example like books, internet, journals, published papers and so on. The result of finding will cover the objectives of this project. This chapter focus on finding the previous project, research and technique which related to the project, to prove that this project could really working and function well based on the previous evidence. Besides, this chapter also covers the project methodology to show the process and direction of the development and also the requirements such as software and hardware in order to develop the application.

2.1.1 Literature Review

Communication is the process of transmitting messages, thoughts, and ideas between two or more people, and language is a medium for that as well. Verbal/vocal communications and non-verbal/non-vocal communications are the two types of communication. Nonverbal communication consists primarily of hand movements to convey messages and is commonly utilized by people with disabilities. According to Amirita Dewani et al. (2018) sign language is a language that uses body movements, hand gestures, expressions and specific mouth actions instead of sound to communicate. On the other hand, Wendy Sandler (2017) stated that sign languages