ENGLISH SCHOOL MATE

SRI LANKA

Project ID: 2020-069

Project Proposal Report

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BSc Special (Hons) - Information Technology (Specialization in Information Technology)

Department of Information Technology

Sri Lanka Institute of Information Technology

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DECLARATION

We declare that this is our own work and this project proposal does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any other University or institute of higher learning and to the best of our knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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ABSTRACT

This proposal report aims to develop an English language learning application for the students of Sri Lanka to overcome with their difficulties of learning English language in their secondary school education. English education is essential to win the student's future. And also, English language is an international language of the world. According to a survey that our team did, we identify that there are several issues in the secondary school English education system in Sri Lanka. One problem that we identified is the there are few numbers of English teachers to teach English language in rural areas in Sri Lanka. And, boring English learning system is another problem that we identified from our survey. As a solution for these problems, we propose English school mate application to improve teaching and learning quality of English language in Sri Lankan secondary school education.

1. INTRODUCTION

1.1 Background Study

Learning English as a foreign language, especially in a formal context, leads the students to have their own strategy in order to achieve the objective of learning. The strategy is considered as a helpful way to learn English better. After all, every student has their own strategy in learning. so that reason every parent force their children to learn English. But children don't like to learn English.so that we implement this system in a modern way to improve speaking, reading, writing, listening and game for skill development. In here we develop different tasks of English. Parents try to for their child to various English classes.
In this rat race student become frustrated and blame the parents for not giving the freedom to cultivate their inborn talents because children like to play and entertain. Because of this system we try to develop the skills with entertainment. The main aim of this study was to investigate the Effectiveness of English activities as a strategy are used in the teaching-learning process in learning English as a second language classroom in Sri Lankan school context. At present English language proficiency has become a necessity to deal with numerous functions in daily routine. So that this system will help to improve the English learning abilities.

1.2 Literature Review

- English learning is considered as one of the most important skills in acquiring both a native language and a second or foreign language. There are several pieces of research conducted all over the world on educational tools.- A Study on the Effect of College English Autonomous Listening and Speaking Learning under the Network Environment on the Learners' Listening and Speaking Ability- This study investigated the feedback from the students who have participated the autonomous listening and speaking learning under the network environment for two years by means of a questionnaire. The results show that this learning environment has had a positive effect on the improvement of learners' listening and speaking ability due to the design of different levels, advantages from the network and the alleviation of language anxiety. It also points out the importance of further study to make full use of network resources to cultivate the learners' autonomous learning ability and the evaluation of language study under the network environment.

- The Strategy of Training the Students Autonomous Study in English Speaking- —This essay illuminate the importance and necessity of guiding the students to improve English speaking ; open out the pressure of training the students autonomous study consciousness in English listening and speaking. Teacher should participate in practicing speaking English˙and try to reduce the difficulties of practicing speaking according to the students real situations. Then Offer the speaking tasks to the students in order to improve their initiative. Emphasize that the teacher should act as guiders so as to dig out their potential, guiding the students to study actively in or after classroom using computer and network, So that we can improve the students English speaking as well as the appliance competence

- Improving English Language Ability for Engineering and Technology Students through Focusing On Grammar- —The foundation of Engineering and Technology students at UTP are required to register for Basic English classes I and II. Even though they have been exposed to the language for a substantial period of time, majority of them are still lacking in their ability to apply the appropriate use of the language in writing and speaking. This has raised a concern of the university top management. Thus, this study will focus on the teaching of grammar to the students in order to enhance their skill in the language. The study focused on the form approach in teaching grammar for Foundation of Engineering and Technical students through cooperative learning. A Pre-test was given to the students to identify the appropriate grammatical forms to be focused on in the teaching. A Post-test was then administered to analyze any improvements on the students' command of the language. Quantitative method of data gathering was used. The outcome of this study revealed that the cooperative learning of grammar is effective in increasing engineering students' understanding its applications.

- Interactive Location-based Game for Supporting Effective English Learning- Many non-English speaking countries regard English as the most important second language. Therefore, developing modern assisted-learning tools that can support effective English learning is a critical issue in the Englishlanguage education field. With the fast development of wireless positioning techniques, the location-based game has been considered as a novel type of game and it has

high potential to support context-aware learning. Accordingly, this study proposes a novel game-based English learning system with context-aware interactive learning mechanism which can appropriately provide a corresponding game-based English learning scene to the learner's handheld device based on the learner's location context. The proposed system aims to construct a mixed reality game learning environment that integrates virtual objects with real scenes in a university library. The preliminary experimental results reveal that the proposed learning mode provides likely benefits in terms of promoting learners' learning interests, increasing learners' willing to learning English.

1.3 Research Problem

English language plays an important role in our lives because it makes possible communication between different countries as the only common language across the globe. English books are the common available medium of literature and information that is accessible to everyone. *English* in *Sri Lanka* is fluently spoken by approximately 23.8% of the population, and widely used for official and commercial purposes. It is the native *language* of approximately 74,000 people, mainly in urban areas.
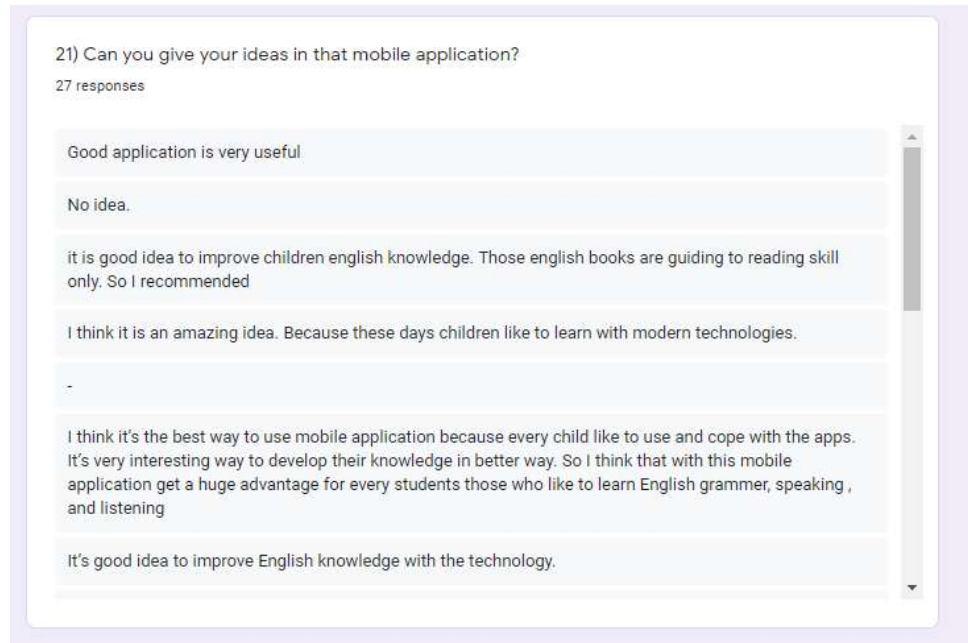
Nowadays English is the one of main subject of school syllabus in Sri Lanka. There are three categories of grammar, spoken and listening lessons in the school English pupils' book. So most of the time teaching methods are different form urban province schools than the rural province schools. According to that reason those students' knowledge was different.

We did an analysis through English teachers, students of grade 6 to 9 and their parents, teachers of any other subjects using a Google question form. According to that form we found some problems in English teaching and learning processes in schools of both urban and rural provinces. There was a problem with their knowledge according to our analysis result that shows 1.3.1 Figure.
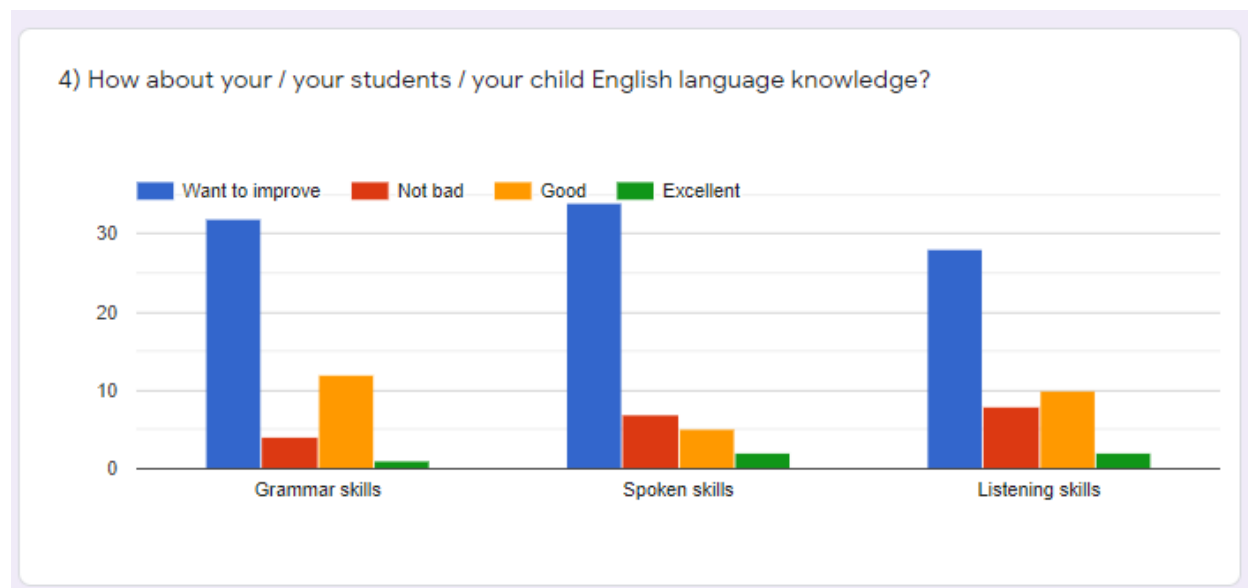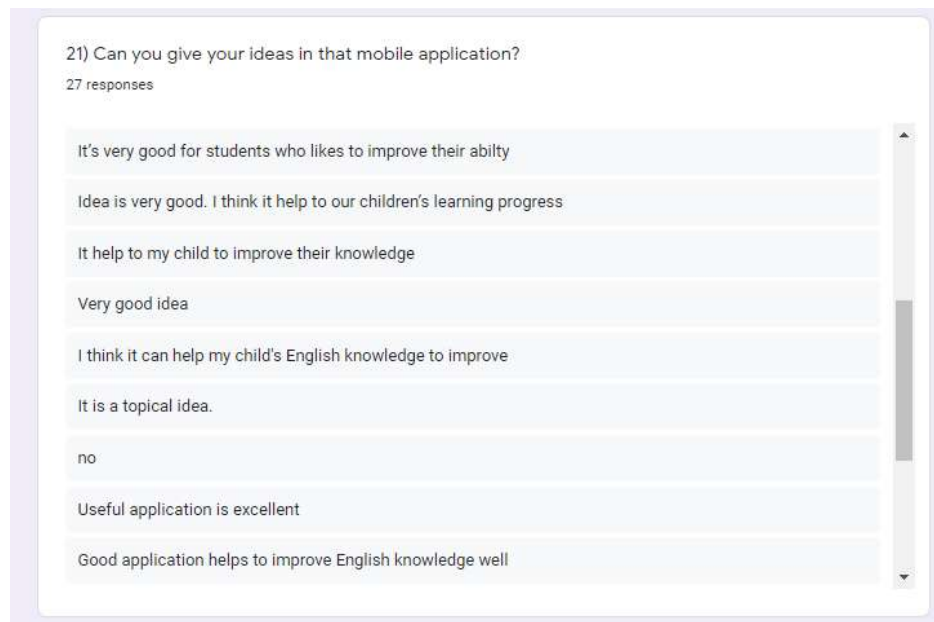

1.3.1. Figure: results of question paper that lack of knowledge.

We gathered many of data related to that problem through our question paper and also get some idea from results. It shows from 1.3.2.Figure, 1.3.3.Figure and 1.3.4. Figure. There are many problems of vocabulary, grammar writing, English spoken and listening.

21) Can you give your ideas in that mobile application?
27 responses

Good application is very useful

No idea.

it is good idea to improve children english knowledge. Those english books are guiding to reading skill only. So I recommended

I think it is an amazing idea. Because these days children like to learn with modern technologies.

-

I think it's the best way to use mobile application because every child like to use and cope with the apps. It's very interesting way to develop their knowledge in better way. So I think that with this mobile application get a huge advantage for every students those who like to learn English grammer, speaking, and listening

It's good idea to improve English knowledge with the technology.

1.3.2. Figure: ideas to solution from question paper, part 1

21) Can you give your ideas in that mobile application?
27 responses

It's very good for students who likes to improve their abilty

Idea is very good. I think it help to our children's learning progress

It help to my child to improve their knowledge

Very good idea

I think it can help my child's English knowledge to improve

It is a topical idea.

no

Useful application is excellent

Good application helps to improve English knowledge well

1.3.3. Figure: ideas to solution from question paper, part 2

21) Can you give your ideas in that mobile application?

27 responses

no

Useful application is excellent

Good application helps to improve English knowledge well

Can improve our English knowledge through this application successfully

Through the good application can get sound English knowledge

Sound English knowledge can get through the useful application

Through the application can improve the children English knowledge

Good and useful application needed as soon for improve English

Good application is very helpful to get sound English knowledge

1.3.4. Figure: ideas to solution from question paper, part 3

Finally we will   propose some solution to those problems using modern technology

1.4 Research Gap

Features / Application	Vocabulary improvement game	English writing	Spoken English	English listening
Dulingo	√	×	×	√
Memrise	√	√	×	×
Busuu	×	√	×	√
BBC Learning English	×	√	×	√
Hello English	√	×	×	√
Our proposed System	√	√	√	√

2. OBJECTIVES

2.1 Main Objective

 The aim of this project is to develop a system to improve English language in a interesting way in Sri Lanka through an application.

2.2 Specific Objectives

The objectives of this project are,

- Plan and develop a vocabulary skill improvement and brain improvement game.

- Design and develop an English writing module.

- Design and develop a spoken English module.

- Design and develop an English listening and answering module.

3. METHODOLOGY

This section is to describe the way our English school mate system will be designed and implemented by explaining each function with the process and their flow of the system and about the technologies used to implement the system.
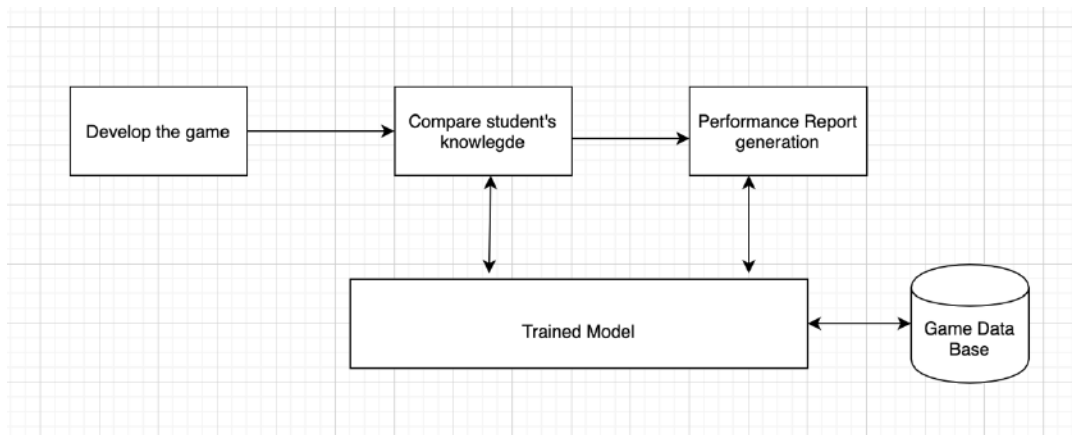
3.1 System Overview Diagram

This section is to describe the way our English school mate system will be designed and implemented by explaining each function with the process and their flow of the system and about the technologies used to implement the system.

3.1 System Overview Diagram
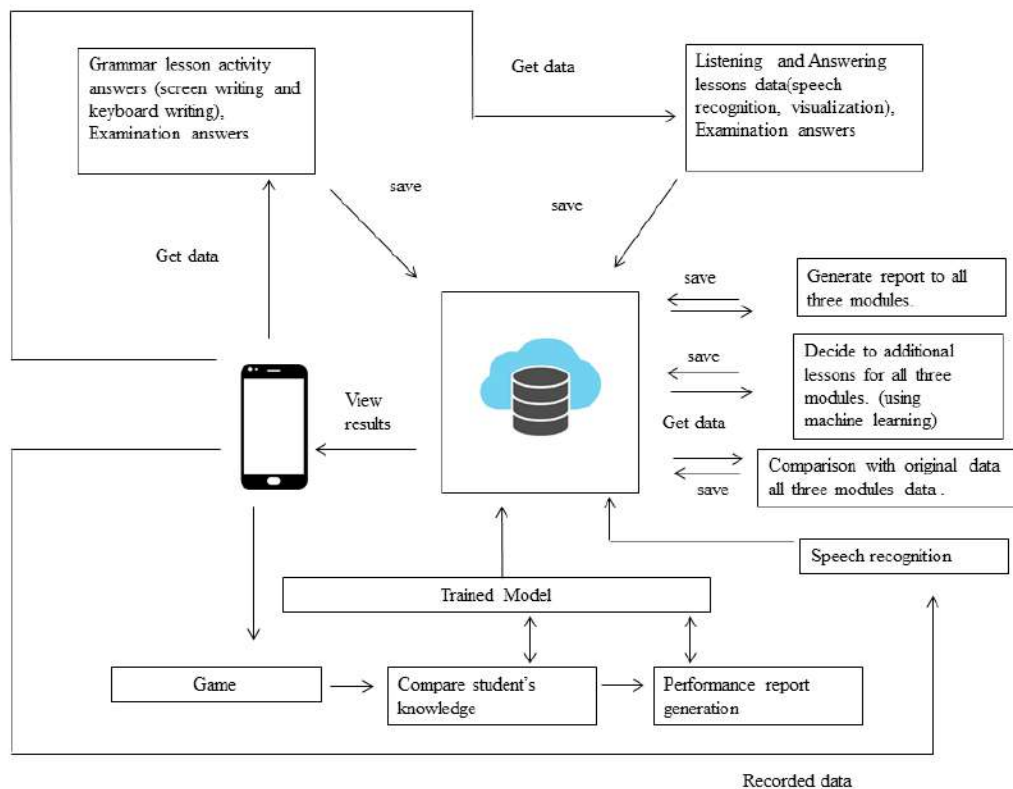
3.1.2. Figure: methodology diagram

3.2 Functionalities

- Vocabulary skill improvement and brain improvement game.

  In this function we are going to develop an interactive game to improve vocabulary skills of the students and to improve brain and thinking ability of the students. We use this function to give entertainment while learning.
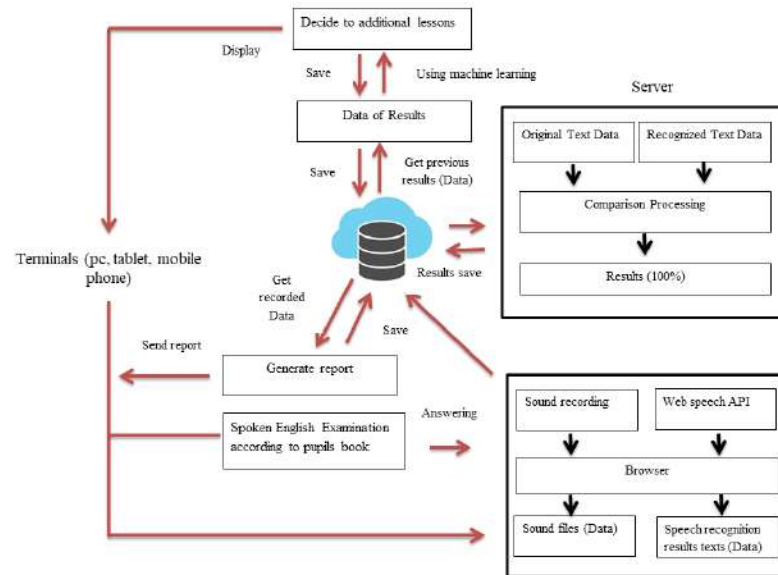

3.2.1.Figure : system overview diagram of the game

- English writing module
- Implementing image processing techniques and keyboard typing, writing screen features.

- Implementing lessons for English grammar using grade wise English pupil book.
- Implementing additional lessons for English grammar.
- Implementing examine papers.

  Generate student learning progress reports using recorded data.
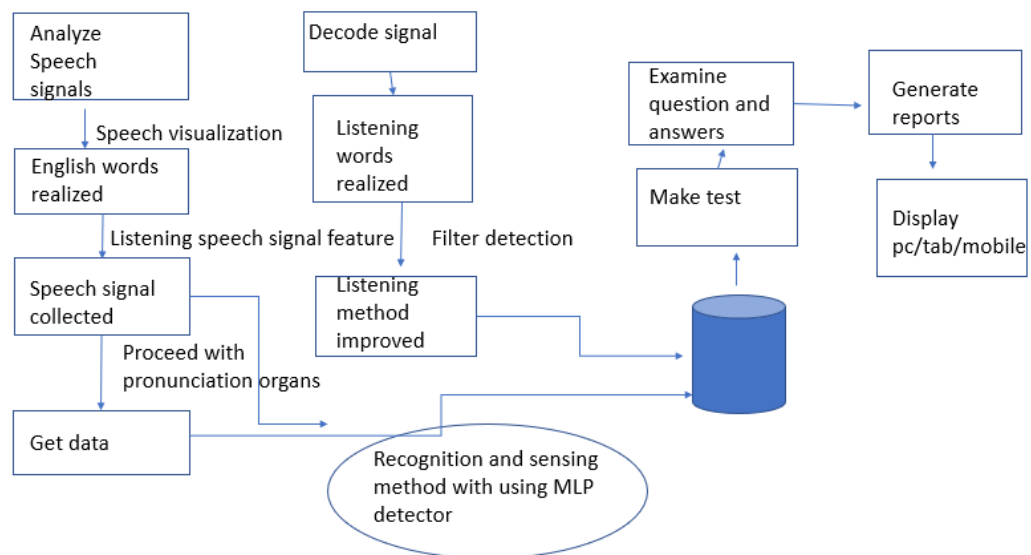
- Spoken English module

  This module focuses the category of spoken English. This module uses Machine learning algorithms, speech recognition feature and visualization. So target to improve spoken English skill of student.

3.2.2.Figure : system overview diagram of the spoken English module.

- English listening and answering module

In here,

- Implementing speech single recognition and visualization technics.

- Implementing lessons for English listening and answering using grade wise English pupil book.
- Implementing additional lessons for English listening and answering and good habit practices.
- Implementing examine papers.

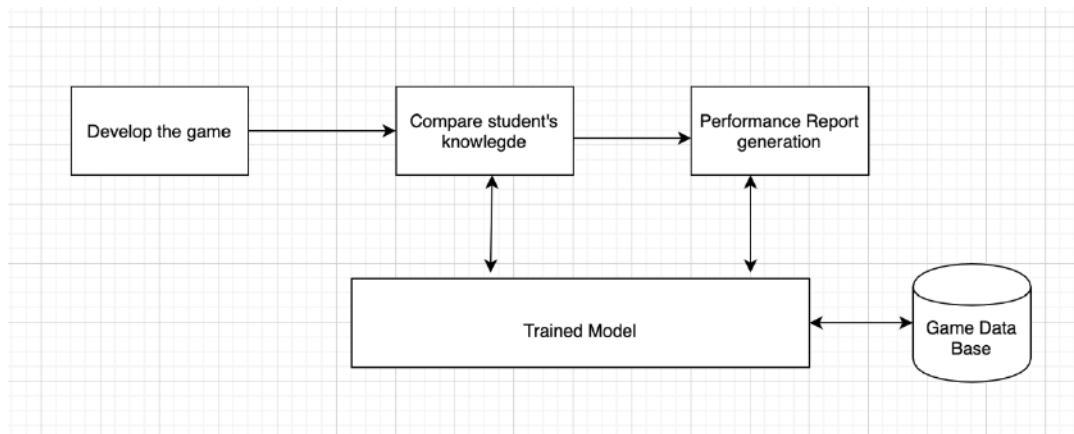- Generate student learning progress reports by using recorded data.

Figure 1: system overview diagram of the game

3.3 Flow of the Project

The Waterfall Software Development Lifecycle is used and below will be the process of our system.

3.2.1 Requirement Gathering and analyzing

In here before starting implementations should clarify whether this system provide the necessary solutions for problems. Collecting information from several resources and getting clear understand about future process and tasks is done in this stage. Below are some methods that we use to gather information.

- Reading research papers
- Studying about present existing systems
- Seeking for tutorials and videos related through YouTube

Using these methods can get a knowledge about the differences between existing systems and newly proposed system. Next should analyses the requirements gathered by this can get a clear idea about limitations in existing systems and the things that can add to new proposed system to reduce those limitations.

3.2.2 Design

This stage is used to study about requirement specifications and design the system. This helps to identify the requirements of system. At the end can conduct a design review and an architecture to prove that design match for above requirements.

In here should transform the requirements to suitable form before start implementing the system.

In this phase it will not provide proposed features to users without a proper foundation to the system. So, this designing phase is very important.

3.2.3 Implementation

Implementing the functions mentioned above is done in this phase. Although waterfall model will be used throughout the project this phase will be developed layer by layer.

Coding phase started in this section and testing also done within this. This is the major part in whole project. We plan to do step by step as the design created in design phase.Full output depends on the work done on this phase.

3.2.4 Testing

- Unit Testing – Each and every function of the system will be test by the member who is developing that particular function to make the function a defects free unit of coding.

- Component Testing – Several functions developed by each team member without bugs after unit testing are combined and will be test together.

- Integration Testing – In here members are responsible to test whether the relationships and communication between the components tested are working as expect without defects.

- System Testing – The components of each group member should combine and test the full system to verify all the functionalities and performance.

3.4 Tools and Technologies

3.4.1 Tools

- Android Studio
- Unity game engine.

3.4.2 Technologies

- Java

4. DESCRIPTION OF PERSONAL AND FACILITIES

Member	Component	Tasks
Shehan D.S	Vocabulary and brain improvement game generation	1. Do literature survey. 2. Developing the game. 3. Implementing the gaming time limits. 4. Generate student performance reports. 5. Documenting. **6.** Testing.
Sankalpa H.A.B	English writing module generation.	1. Do literature survey. 2. Implement the writing screen. 3. Implement English grammar lessons. 4. Implement the question papers. 5. Generate students learning progress reports. 6. Documenting. 7. Testing.
Divyanjali S.N.S	Spoken English module generation.	1. Do literature survey. 2. Implementing the speech recognition module. 3. Implementing the spoken English lessons. 4. Implementing the question papers. 5. Generate student learning reports. 6. Documenting. 7. Testing.
Madushani N.G.H	English listening and answering module generation.	1. Do literature survey. 2. Implementing speech single recognition module. 3. Implementing lessons.

		4. Implementing question papers. 5. Generate learning progress reports. 6. Documenting. 7. Testing.

REFERENCES

[1] y. fan, "Research on speech vizualisation technology and its application in english listening teaching," in *2018 International Conference on Intelligent Transportation, Big Data & Smart City*, 2018.

[2] K. suhij1, "A Study on the Effects of Binaural Listening," in *8 International Joint Conference on Information, Media and Engineering (ICIME)*, 2018, 2018.

[3] D. o. C. a. Statistics, "Computer Literacy Statistics – 2018 (First six months)," 2018.

[4] S. L. Vengadeshvaran Sarma, "Educational Inequalities in Sri Lanka:National Data and Local Perspectives on,Access, Quality and Learning Outcomes," in *center for poverty*, 2018.

[5] K. R. F. Seefa, "A LEARNERS' PERSPECTIVE OF THE CHALLENGES FACED IN LEARNING ENGLISH AS A SECOND LANGUAGE IN POST-CONFLICT SRI LANKA: A CASE STUDY OF THE MADHU ZONE IN MANNAR DISTRICT," in *Department of Languages, South Eastern University of Sri lanka* , 2017.