

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)

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DECLARATION

We declare that this is our own work and this 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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The above candidates are carrying out research for the undergraduate Dissertation under my supervision.

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ABSTRACT

English is the largest language by number of speakers, and the third most-spoken native language in the world, after Standard Chinese and Spanish. It is the most widely learned second language and is either the official language or one of the official languages in almost 60 sovereign states. Learning English as a Second language is considered as a challenging task.

Students in rural areas of Sri Lanka face many problems and difficulties in learning English as a second language. This study aims to sort out some factors which affect learning English as a second language in rural areas in Sri Lanka. The target group for this study would be students of Government Secondary schools in rural areas like Sabaragamuwa and North western provinces etc. Learners encounter many challenges when learning English in these areas. In this document that mainly target to spoken English skill problems from students in these areas.

Therefore, the methodology employed in gathering information was questionnaires. The data were analyzed using qualitative and quantitative methods. The findings of the study indicated that lack of exposure, lack of opportunity to practice English outside the classroom, lack of facilities and poor economic conditions were the main external challenges faced by students. Apart from these challenges lack of qualified teachers, use of faulty teaching methodology and deficiency in materials contribute to the challenges. Final observations showed that students were deprived of external resources which assisted students in high-performing schools to become proficient in spoken English. Eventually recommendations in the light of findings are also discussed in this paper which will help the students overcome the challenges.

Keywords: English, Spoken English, Rural Areas, Challenges

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1. INTRODUCTION

1.1. BACKGROUND

English is the largest language by number of speakers, and the third most-spoken native language in the world, after Standard Chinese and Spanish. It is the most widely learned second language and is either the official language or one of the official languages in almost 60 sovereign states.

As well as English language is taught as a compulsory subject in schools in Sri Lanka, many children faced difficulties due to inadequate English education to students. Not only students even those qualified for university and seek employment and even those not qualified enough to enter university also face many difficulties due to the lack of English knowledge. The foundation to provide an English language education should be established in schools from their primary and secondary education.

English language can divide mainly three components like writing, spoken, listening. There are many difficulties in the English education between rural and urban province of school students. From those components, spoken English category has many lacks of problems in learning and teaching methods in schools.

1.2. LITERATURE SURVEY

When researching through resource for similar type systems and procedures we found several implementation of this spoken English module using speech recognition concept where textual bodies are developed using Machine Learning, Speech Recognition feature, Visualization and etc.

- Using the recognition and speech synthesis to assist the practice of English pronunciation.

Recognition and voice synthesis systems have been used in diverse situations, such as by phones, GPS's, games and consumer services. This is because speaking is inherent in human being which makes it an user-friendly computer interface. This paper aims to present a mobile

application (Talk2Practice) based on recognition and voice technology to support English pronunciation teaching.

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- Impact of Voice-based Interaction on Learning Practices and Behavior of Children.

This paper, argues that it is critical not only to investigate how children use voice-based interactions to communicate with devices(e.g.smartspeakers) but also the nature of relationships that children form with these devices, the influence such use has on children's learning and behavior, and the role that parents or guardians play in deciding the norms of use for children. They also propose to explicitly and intricately investigate complexities in use and its impact relative to entangled identities (conveyed through overlapping attributes of gender, ethnicity, race and class) and larger social systems. To this end, they propose to use Social Learning Theory to understand how children learn through observing and interacting with smart devices, specifically using voice-based commands. Methodologically, they will conduct participatory design sessions and follow-up interviews to get a nuanced understanding of how children mentally contextualize voice-enabled smart devices and how social fluency (e.g. parental expectation/norms), social function of identification (e.g. children's emotional connection with technology), and learning goals impact their usage patterns.

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- Evaluating the effectiveness of English speaking and learning attitude for elementary students in a digital game-based learning environment.

This study developed a digital game-based English learning system, named “UAnimation”, and conducted an experiment to evaluate the speaking ability of the learners by using the system. One hundred and five fifth-graders from four intact classes in an elementary school in Taiwan were recruited to participate in the experiment. The experimental group learned English speaking with the proposed UAnimation whereas the control group used traditional methods to learn English speaking, such as reading aloud in pairs or in groups. Although the results showed that both the digital game-based English animation learning system and traditional teaching methods did could enhance the learners’ English speaking, further comparisons, also indicated that students in the experiment group out performed those in the control group and became more active learners when learning English. In conclusion, the UAnimation not only enhanced the students’ English speaking but also helped them develop a more positive attitude about English learning.

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1.3. RESEARCH GAP

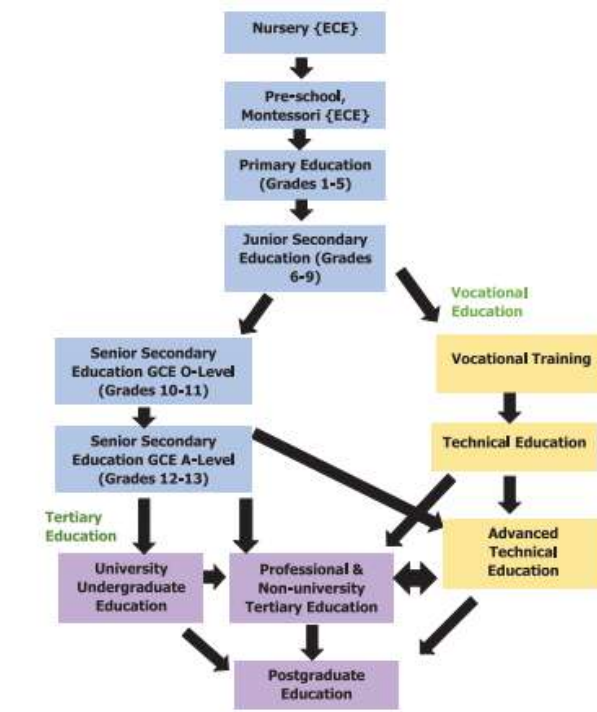
Application Proposed	ELSA	Nativox	FluentU	Apps4Speaking
1. Speech single recognition technics and visualization.	Yes	Yes	Yes	Yes
2. Lessons for spoken English using grade wise English pupil book.	No	No	No	No
3. Additional lessons for spoken English according to knowledge level.	Yes	No	Yes	No
4. examine papers	No	No	Yes	No
5. Generate student learning progress reports by using machine learning algorithms	No	No	Yes	Yes

1.3.1. Table: Research gap

2. RESEARCH PROBLEM

Nowadays knowing English language increases your chances of getting a good job in a multinational company within your home country or for finding work abroad. It's also the language of international communication, the media and the internet, so learning English is important for socializing and entertainment as well as work. So in that reason English learning is so important. English is a language. Language plays an important role in communication. The standard methods of communication are speaking or writing by a sender and listening or reading the receiver. Most communication is oral, with one party speaking and others listening. So, the spoken English category is more important from English language.

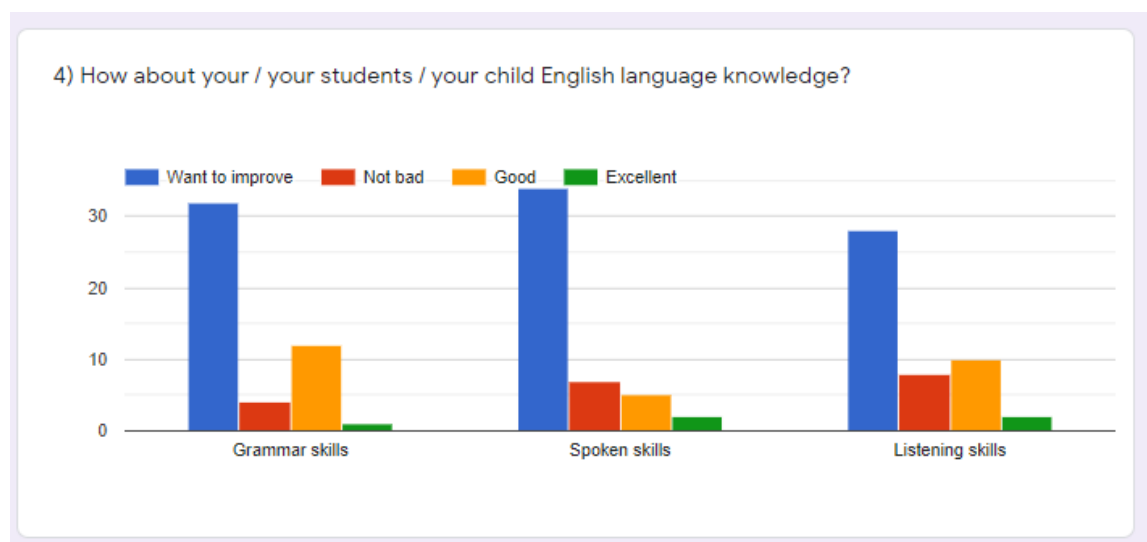
Therefore in Sri Lanka, English language has been a one of main subject in the school syllabus. In that reason everyone can start learning English from their school time. Sri Lanka's current education system has been divided as figure 2.1. According to that chart found a best time period which stage is the most suitable to start and improve the Basic spoken English properly. The stage of junior secondary education is more suitable to it because it's between primary education and senior secondary GCE O-Level. So student can improve their English education before O-Level examination.



2.1 figure: The stages of education in Sri Lanka

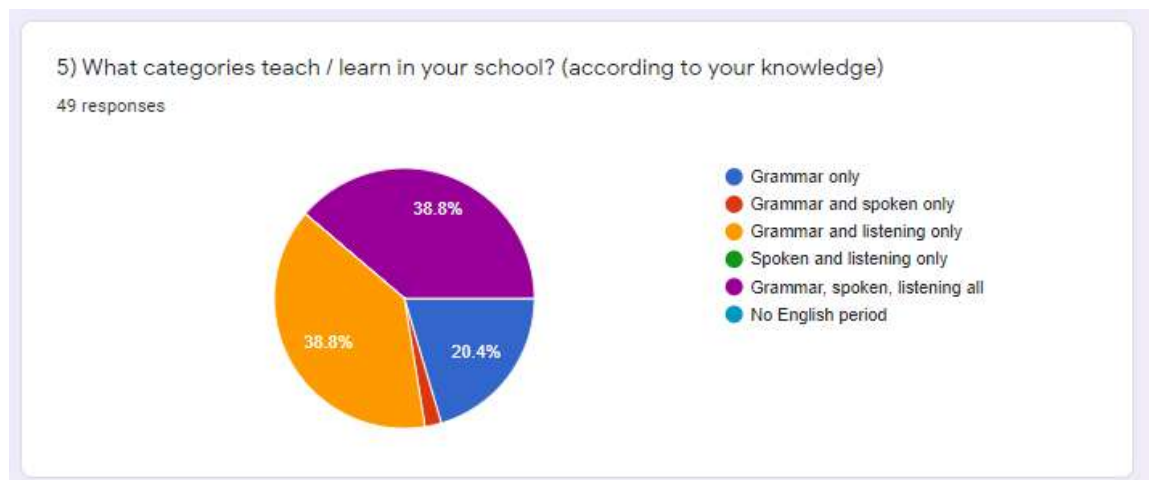
Sri Lanka has the highest basic literacy rate in South Asia, and its education system has continued to improve despite 26 years of civil war. However, the country still has a long way to go regarding literacy in the broader sense especially in rural areas and the estate sector, the low rates of digital literacy, financial literacy, and English literacy are alarming. This gap between urban and rural areas brings harsh consequences. It hinders the development of rural Sri Lanka and denies rural communities access to advanced education, higher-paid jobs and a better quality of life.

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 about spoken English category in schools both urban and rural provinces. In case we found there is problem that group of students want to improve their spoken English knowledge on some way. The 2.2 figure show this result as a chart.



2.2 figure: lack of knowledge in spoken English category

As well as some school teachers do not teach the spoken English category according to figure 2.3. There are 38.8% teachers have taught these three categories of grammar, there are 38.8% teachers had taught only grammar and listening lessons at their schools and 20.4% teachers had taught only grammar lessons only. Finally the few of teachers had taught grammar and spoken lessons. According to those results we can conclusion there are most number of teachers had not taught spoken lessons in their schools. So we found a problem some school teachers doesn't teach spoken lessons to their students.



2.3. Figure: Teaching percentages of those three categories of English (Grammar, Spoken, Listening)

Finally we decided there is a problem with teaching spoken English category at the schools of rural province than urban province. Sometimes it's become from lack of teachers or methods or technics. Also it's proof from the document of Educational Inequalities in Sri Lanka.

3. OBJECTIVES

3.1. MAIN OBJECTIVES

In this proposed system have some objectives to complete.

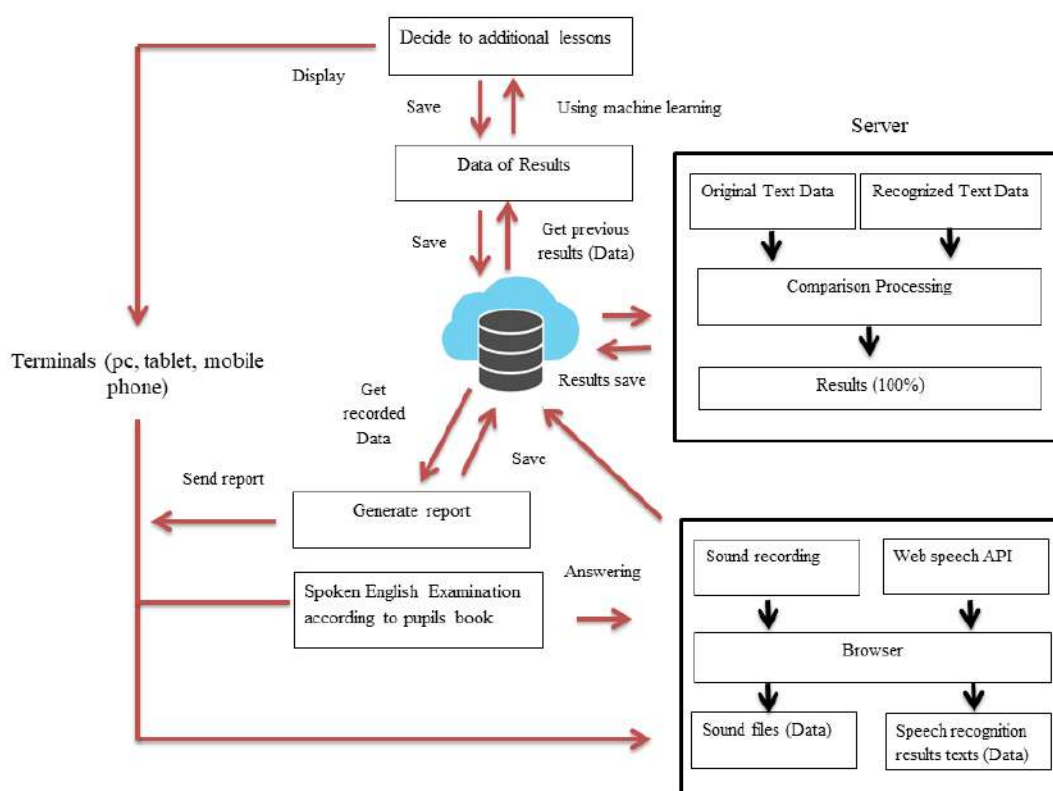
- The spoken English module wants to improve the English spoken ability who between grades 6 and grade 9 students to high than present abilities.
- That module mainly focuses to student's pronunciation to improve.
- There are question papers to every lesson to examine their improvements.
- The module target to cover every spoken lessons of their English pupil book.
- If any student wants some additional lessons to improve their spoken ability because her / his ability level in low level then module decide it and continue.
- This module is more suitable to every student who low level knowledge and ability in between grade 6 and grade 9 of both rural and urban schools but this mainly target to rural province students.
- Finally generate a report using recorded data of examination results and activity results.

3.2. SPECIFIC OBJECTIVES

- Specially targeted to rural province student's spoken ability to improve. Sometime they haven't quantitative facilities. Therefore we will target to give this system at least use from their school computer lab because nowadays have many projects that donate computers to rural province schools.

4. METHODOLOGY

In this spoken English component mainly use speech recognition. It is a software invention that allows the user to interact with their mobile devices through speech. It is simply an application that enables a machine to single out words or phrases in a spoken language, thereafter it converts them to a machine-readable format. So we target to improve their spoken English ability and pronunciation through this technology. Apart from that this module use machine learning to decide additional lessons to students according to their knowledge. Finally get recorded data of activity results and question paper results then will generate report using that data and visualize all things on the mobile phone, computer and tablet screen using visualization technics.



4.1. Figure: methodology chart of spoken English module

5. TOOLS AND TECHNOLOGIES

1. Outlook for Android
2. Java
3. Python

6. REFERENCE

- [1] D. o. C. a. Statistics, "Computer Literacy Statistics – 2018 (First six months)," 2018.
- [2] 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.
- [3] 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.
- [4] L. F. d. S. ., L. ., d. P. G. Valéria Farinazzo Martins, "Uso do reconhecimento e sintetização de voz para auxiliar a prática da pronúncia da língua inglesa Using the recognition and speech synthesis to assist the practice of English pronunciation," in *Faculdade de Computação e Informática Universidade Presbiteriana Mackenzie* .
- [5] Y. Ono, "Construction of a Voice-based Asynchronous Communication System Utilizing Speech Recognition and Its Potential for EFL Learners' Speaking Ability: A Pilot Study," in *Center for Education of Global Communication* .
- [6] S. Sengupta, "Impact of Voice-based Interaction on Learning Practices and Behavior of Children," in *School of Information Studies*.