A MOBILE-ASSISTED LEARNING APPLICATION OF MOTHER TONGUE FOR GRADE 3

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Abstract. This study proposes A Mobile-Assisted Learning Application of Mother Tongue for Grade 3. This mobile application adopted the content of the mother tongue books and curriculum guide in 3rd grading period that will act as supplement material in Bolosan-Caingal Elementary School for Grade 3. It is interactive and has a feature such as dictionary, flashcards, lesson and quiz. This feature will help the pupils to widen their vocabulary in mother tongue, and enhance their skills in pronouncing Pangasinan term. Thus, it also has a quiz to test their knowledge. This mobile application is an Android-based.

Keywords. Mother Tongue, mobile assisted learning application, Grade 3 Mother Tongue, Pangasinan language

1 Introduction

According to DepEd, starting school year (SY 2012-2013) the Mother Tongue-Based-Multilingual Education (MTB-MLE) will be implemented in public schools especially in Kindergarten, Grades 1, 2 and 3 as part of K-12 Basic Education Program. There are twelve (12) major dialects used in the Philippines. These are Tagalog, Pangasinan,Kapampangan, Ilokano, Bikolano, Cebuano, Hiligaynon, Waray, Tausug, Maguindanao, Maranao and Chabacano. Yet, there is not enough resources and materials like books that can be found or bought to learn these major dialects.

2 Review of Related Literature

There are 8 major languages or Lingua Franca recommended to be taught in the provinces. These are Tagalog, Pangasinan, Kapampangan, Ilokano, Bikolano, Cebuano, Hiligaynon, Waray, Tausug, Maguindanao, Maranao and Chabacano. Valerio, Ma Theresa B. 1 says that many of the grade school pupils in the Philippines do not know how to speak their own mother tongue language so the Department of Education implemented the Mother Tongue-Based Multilingual Education (MTB-MLE) since 2012 under the K to 12 curriculums.

According to Espino (Governor in Pangasinan), at present time, aside from teaching Pangasinan as language, teacher is also teaching Ilokano in some towns in the province populated and dominated by the Ilocanos. The governors' aim is to save the Pangasinan language from dying or from being forgotten by the next generations of Pangasinans. The dialect of Pangasinan is Pangasinan not pangalatok, not pangalatot, pangalatik, pangalatit and pangalato. It is very said that even some Pangasinans call themselves with these words. Some journalists or news reporters use Pangalatok. This misconception is due to the fact that Pangasinan was not being used. Therefore, with the help of this application, Pangasinan will be made known to others especially those who are not natives of Pangasinan.

However, there is a scarcity of teaching materials related to teaching these dialects which poses as one of the challenges in the delivery of mother tongue. This problem was stated in the study of Cabansag, John N., et.al. 2 His

study reveals that some major problems encountered by the teachers are difficulties in translating the major dialects and lack of instructional materials.

Findings in the study of Cruz, Nora T.[3] revealed that Grade I pupils in public elementary schools in Pangasinan attains average percentage level performance in the mother tongue as a subject, particularly in areas that target the vocabulary and concept development, grammar analysis, and reading comprehension.

Lartec et.al.[4] said that aside from lack of teaching resources and materials like books, hitch encountered by the teachers in implementing mother tongue-based instruction include lack of vocabulary and lack of teacher-training. Costley, Kevin C.[5] presented a paper on how the technology becomes more vital to students and teachers. In his study, he found out that teachers are having a hard time in teaching the pupils because of lack of teaching resources and materials like books.

The proponents are positive about the development of the mobile application that would help teach students and teachers alike on the local dialect. The mobile application would be effective and helpful in teacher, parents, and pupils because this mobile application is easy to use and easy to understand. Using this mobile application, student could learn their local dialect and enhance their pronunciation skills easily. It will help teachers lessen their works in teaching the students because it would act as supplement to the usual teaching materials used and students would be familiarized with their dialect using the proposed mobile application. Moreover, parents would save money because they do not need to buy new textbooks for their children.

3 Project Design and Methodology

The proponents prepared an operational framework that served as the foundation of the study shown in Figure 1.
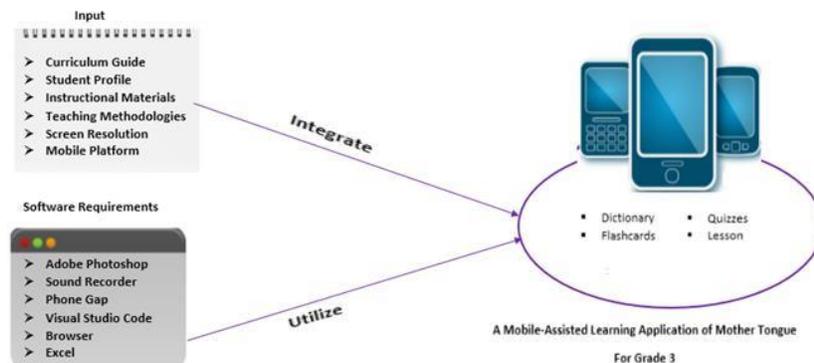

Figure. 1. Operational Framework of the Proposed Study

In order to create a mobile application, The proponents need to gather all the data and requirements needed for the proposed study. First, there is a need to know the situation of the Grade 3 of Bolosan-Caingal Elementary School in their Mother Tongue Language performance. DepEd's Curriculum was used as reference for the content of the proposed mobile application. The current instructional materials that is being utilized by Bolosan-Caingal Elementary School, obtained as a content of proposed application. The proponents used the teaching methodology that is used by the teachers to support the learning of students with the methodologies for a successful mobile learning application.
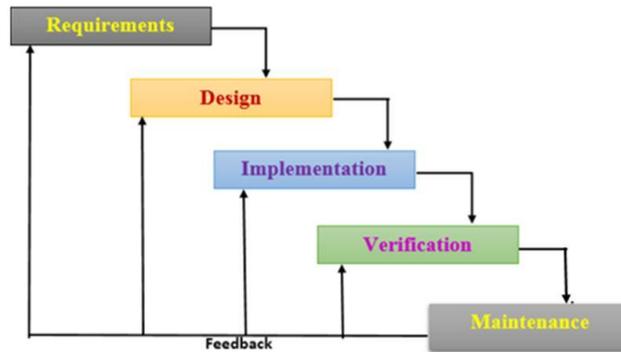
Figure. 2. Modified Waterfall Model

The modified waterfall model was chosen as a methodology in order to develop the mobile application and to solve the identified problems of the proposed study. This incorporates different development phases that happen in the life of project starting right from the project plan is made.

4 Presentation, Analysis and Interpretation of Data

Software Development Life Cycle (SDLC) is a step-by-step process that describes how to design and maintain the specific software requirements that is needed in developing the mobile application. The purpose of the Software Development Life Cycle (SDLC) is to develop a good quality and effectiveness of a mobile application and to ensure that the functional and non-functional requirements, goals and objectives are met

In this stage, interview were conducted to collect and analyze all the needed information in Bolosan-Caingal Elementary School regarding the subject mother tongue in order to provide the solution. The principal of Bolosan-Caingal Elementary School was interviewed as well as the teachers of Grade 3. School profile was gathered, the pupil's performance and grades on mother tongue subject, existing resources materials and the curriculum guide.

The design of the proposed mobile application was created after identifying all the objectives of the project. In this phase the user interface and the application logic were designed. In order to describe and represent the user's interface with the application.

Figure. 3. Mobile Application Home Screen

Figure 3 shows the home screen. The header of the home screen contains the title of the mobile application, help button and the menu bar. The title "Mother Tongue" is clickable that directs to the welcome screen. There are four clickable buttons, which includes dictionary, flashcard, lesson, and quiz.

Figure. 4. Proponent Testing while the Application

Figure 4 shows that there is a need make some test regarding all the needed requirements and specifications in developing the mobile application wherein stage was analyzed. To make sure that the mobile application will perform well, the proponents test it first by installing the mobile application in their android phone. While using it, the proponent does not encounter any problem, the mobile application performs well.

This phase is about evaluating the mobile application. If it complies with a regulation, requirements and specification. It also deals in verifying the mobile application to ensure that
the application meets the needed design and specification. Furthermore, verification includes performing test in an actual mobile application.

After introducing the mobile application, survey form were given to the pupils to find out if the application is useful and met their standards. In figure 20 shows the pupils answering the survey form that will serve as a proof that the mobile application is excellent.

Figure. 5. Pupils testing the application and answering the survey

5 Conclusion and Recommendation

The implementation of the project will not only reduce the risk of the motorcycle being stolen, but this can also help the motorist free of carrying a key that can be lost or tend to break. With the use of the keyless ignition, the motorist was able to start the engine with ease. The results of the testing show that the proponents were able to successfully implement the system without any runtime errors. This system may reduce the risk of fraudulent activities on the motorcycle such that only registered fingerprint user can use the motorcycle. During the development of the project, the proponents found out that several motorcycle brands use similar types of the ignition key.

Overall, the project earned a high percentage of "yes" in the conducted evaluation. All 16 question has an average of 99.69% or 319 out of the 320 of the answers is "yes". While 0.31% of the evaluators disagreed at one of the evaluation questions.

The project is designed and implemented on a motorcycle with a utility box. In the future, the proponents should consider adding a design and enclosure specifically for a motorcycle that has no utility box. Since implementing the proposed system to the motorcycle is a bit complicated and some motorists are not happy dismantling motorcycle covers, the proponents recommend that a convenient connector is placed on a conspicuous area for easy implementation. The proponents recommend that the fingerprint module is mounted on a place where it will not be vulnerable to rain and sunlight because it can trigger the scanning function of the module.

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