

An Android App for Teaching & Training Special Children

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ABSTRACT

This Project is based on the development of mobile application that can teach and train speech and hearing disability children to learn basic concepts like Animals, Fruits & Vegetables. Disabled children will be provided with multimedia interactive interface in which each Animals, Fruits & Vegetables. will be taught using different objects and required description. In multimedia instructional environments, learners are exposed to material in verbal (such as on-screen text or narration) as well as pictorial form (including static materials such as photos or illustrations, and dynamic materials such as video or animation). Analysis modules will be developed through which test can be taken by the disabled and analysis will be carried out. Which Increase the interest of learning, fostering motivation, self-efficacy and impacting handicapped peoples' attitude to study.

I. INTRODUCTION

There is a remarkable growth trends in mobile applications (apps) and smart phones marketplaces currently. An app generally describes to a software application or program that is designed to run on smart phone platform. This project introduces a mobile application (app) for teaching basic concepts to speech and hearing disability children. Speech and hearing disability children are acknowledged to have problems for learning. Addressing the problems of teaching speech and hearing disability children needs to take the advantages from the recent advanced mobile technology, such as mobile app.

In this project a design model is proposed for the development of mobile application that can teach and train speech and hearing disability children to learn basic concepts like Animals, Fruits & Vegetables. Disabled children will be provided with multimedia interactive interface in which each concept will be taught using different objects and required description. Multimedia instructional

environments are widely recognized to hold great potential for improving the way that people learn. In multimedia instructional environments, learners are exposed to material in verbal (such as on-screen text or narration) as well as pictorial form (including static materials such as photos or illustrations, and dynamic materials such as video or animation). Test module and analysis modules will be developed through which test can be taken by the disabled and analysis will be carried out. Increasing interest of learning, fostering motivation, self-efficacy and impacting disabled peoples' attitude to study.

A systemic research is required to determine how to optimize the promising marketing potential of mobile apps, particularly in healthcare field. Hence, we propose to design and develop a mobile apps to train and teach basic concepts to the hearing and talking disabled children. It can be concluded that graphic, text, multimedia, animation interpreter are among mostly required features to be included in their mobile application to ensure the applications are usable for this community.

II. METHODS AND MATERIAL

- Identify the target users (the speech and hearing disabled children) for the mobile apps game in the research market and user study.
- Data collection via surveys.
- Development of methods to create object, description and animations using interfaces and integrate it.
- The entire process that transforming the design concepts into mobile apps prototyping is iterative as the mobile apps will be improved in several cycles throughout the implementation process.
- Test module and analysis modules will be developed through which test can be taken by the disabled and analysis will be carried out.
- Performance evaluation: Conduct an evaluation to ensure the usability and functionality of the app match with user requirement. The effectiveness of the mobile apps also will be evaluated to prove the significance of the study.
- Improving proposed method by adding more visual forms of presentation with animations. Research articles and report writing.

III. RESULTS AND DISCUSSION

This project will be delivered to speech and hearing institutions & speech and hearing disability students, also for the teachers who are involved in the teaching and training of speech and hearing disability children.

This project will also be delivered to parents of speech and hearing disabled children that helps as a useful and powerful tool to guide their disabled children in teaching the basic concepts.



Figure 1. Initial Page (Loading)

This tool allows uneducated specially abled people to learn about Animas, Fruits & Vegetables by providing interactive and attractive multimedia interface which includes Animation Fig 1 shows the welcome page & loading screen of the application.



Figure 2. Menu page

Whereas Figure 2 depicts the main menu where the user can choose to learn from any of the module like Animals, Fruits & Vegetables Where everything is

presented along with audio in the background when any transition takes place, on a click action gives transition to submenu from the Main Menu.

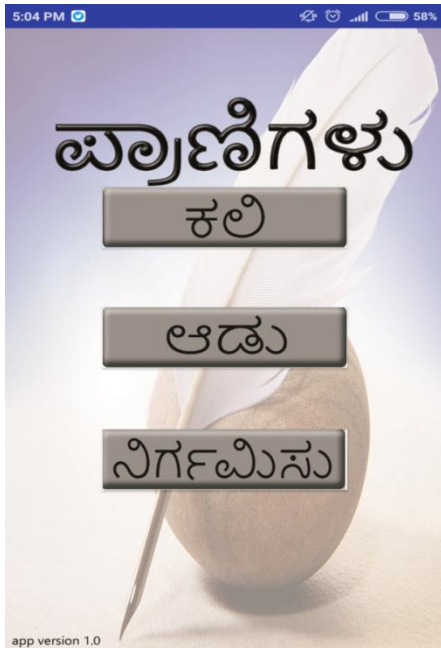


Figure 3. Sub-Menu with Learn, Play & Exit

Figure 3 represents the Sub Menu where user is presented with option to either learn or go with the play where the user can test his skills of what is learnt in the learning module. And one more menu option to exit.



Figure 4. Description page

In Sub Menu on choosing the learn module the description page is opened which contains animation of the learning object or and the play button is used

to give audio based description of the leaning object. Wherein the animal module the audio of the animal sound is added for more interactive learning where on user clicking on the animal the sound made by the animal is played in background.



Figure 5. Test Module

After the learning module the user can go with the test module where the user can take test, the test module contains MCQ type question where the user can select the right option based on the question given, the score is then calculated based on the no of right and wrong options chosen by the user. Post the Quiz module the result will be displayed based on the scores with motivating animations and sounds in the background as shown in Fig 6



Figure 6. Result Page

IV. CONCLUSION

The research outcome will be delivered to speech and hearing institution, who are involved in the teaching and training of speech and hearing disability children.

The research outcome will be delivered to parents of speech and hearing disabled children that helps as a useful and powerful tool to guide their disabled children in teaching the basic concepts.

The same will be published in national and international journals/ conferences for reference by other researchers.

Industrial companies and product designers could use this as guidelines for further product development activities.

Researchers could use this for further optimization studies.

V. REFERENCES

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