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LEARNING APP FOR AUTISTIC CHILD

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ABSTRACT

Autistic is a neurological condition that affects the waged of human brain. The impartial of this study is to design a system that will care autistic children in their education. The system will be route on the Android platform, a mutual platform where too much number of smart phone device applications are run. Children identified with autism frequently are self-absorbed and appear to exist in a private world where they are incapable to successfully communicate and interact with others. Sometimes they have problems in emerging speaking skills and understanding what others say to them. Lack of confidence in the speech is one of the most frequently found difficulties with autistic children. This app seeks to solve the education problem for autistic child. The mobile learning application is a big step towards educational environment.

KEYWORDS: Autistic.

INTRODUCTION

ASD is not rare. It affects approximately 1 in every 165 persons. Children with autism have difficulty in developing appropriate relationship and they exhibit a variety of destructive behaviors, such as repetitive and self-abusive behaviors. Autistic child has following strength like concrete thinking, rote memory, visuo-spatial relationship. The use of pictographic and written cues can help autistic child to learn, communicate and self control. Autism is considered to the most mutual incapable growing problem. This is a neural syndrome that distresses multiple areas of growth like societal communication. People who is detected with autism they are poor in verbal and non verbal communication. In the early age of child the sign of autism can be found like in the age of three child spoken communication not developed as normal for a child of his/her stage.
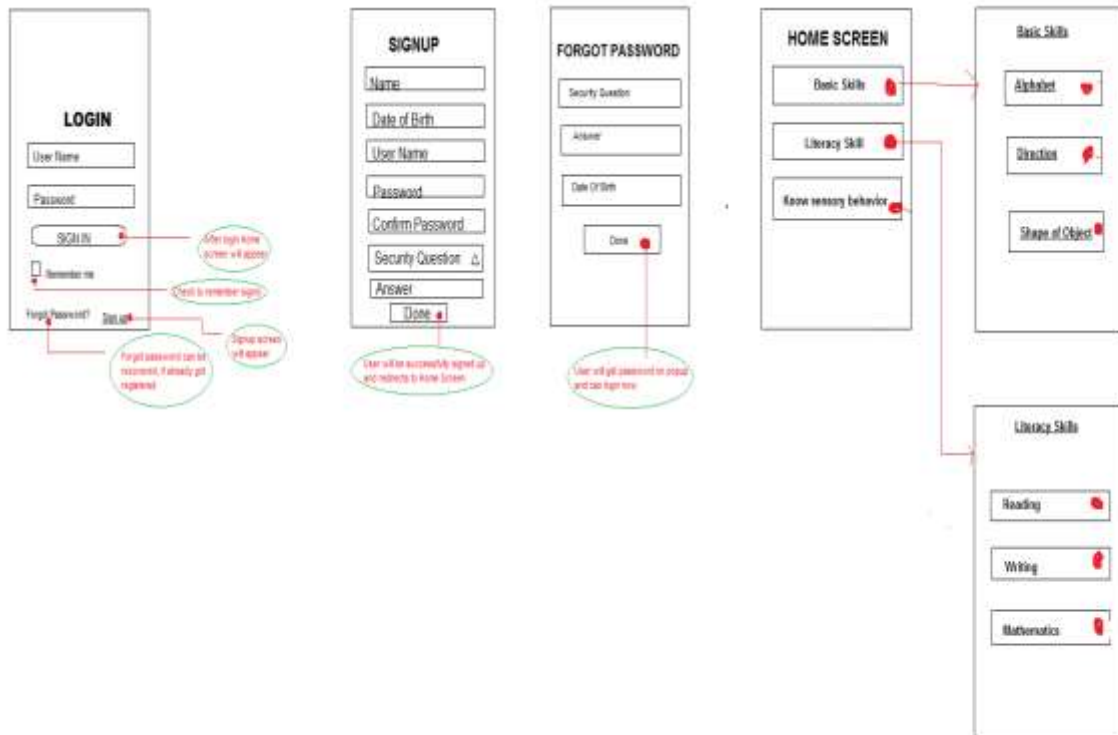
Diagnosis:

This disease can be found by doctor or clinical psychologist who is expert in this field. Valuation and analysis normally include a multidisciplinary team comprised of a pediatrician or psychiatrist, a psychologist, and a speech and language pathologist (SLP). The psychologist directs valuations to fold info on growing level and the SLP assesses talking, dialectal, and talkative actions. The medical assessment is lead to rule out another causes for the signs, as there are many characteristics which related with autism are also found in other disorders. A medical and development is taken after discuss with parents.
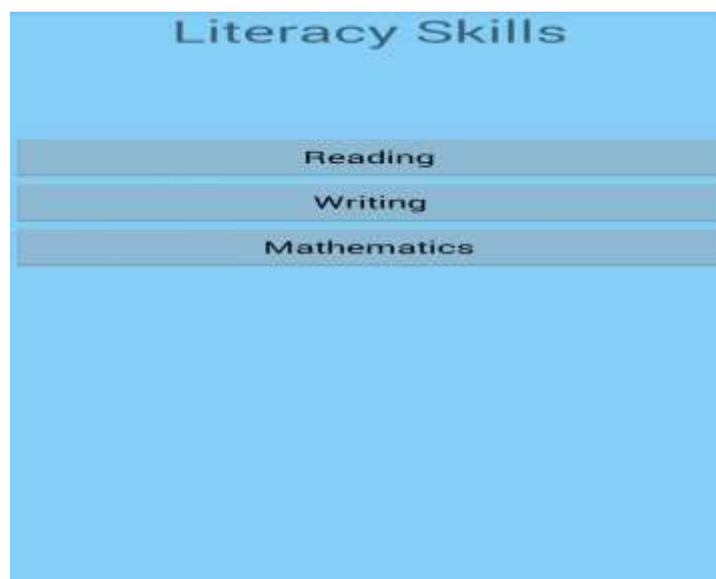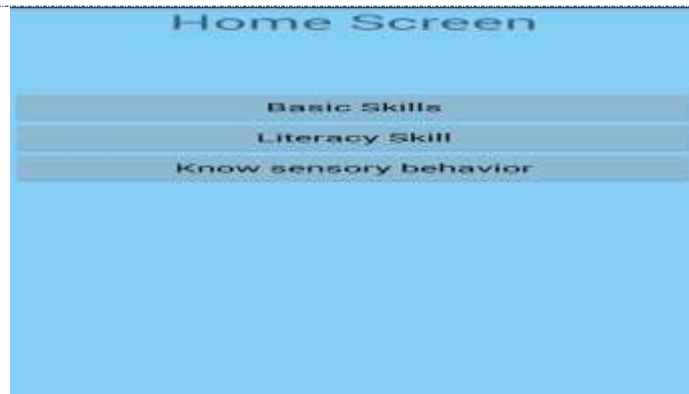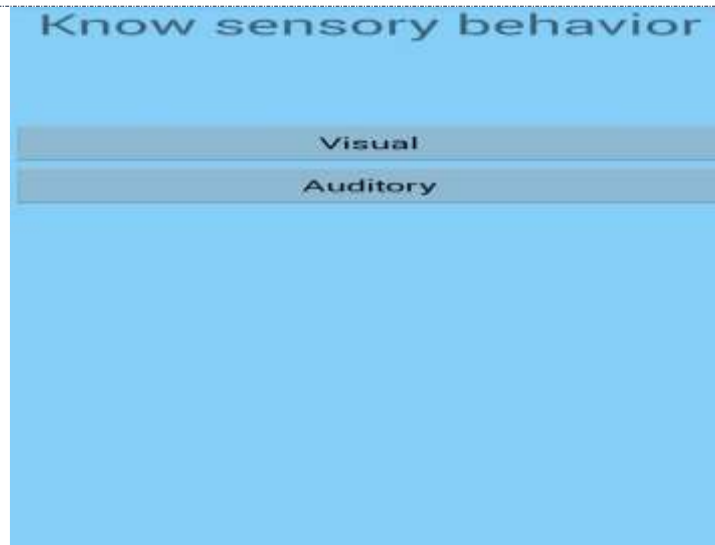
Autisms Characteristics:

1. Deficiency in communication.
2. Lack in nonverbal communication like changes in facial expression, use of gestures, eye contact and common attention.
3. Poor in social interaction.
4. Infrequent behavior and interest.
5. Child have difficulties in paying attention.
6. Cognitive Deficits and Cognitive Learning Styles.
7. Child may have trouble with understanding of oral and written information, such as following directions or difficulty with reading comprehension. While some child may establish a strength in certain aspects of speech and verbal, vocabulary, and knowledge simple grammatical structures child have difficulty in carrying on a conversation and using speech for societal and interactive purposes.
8. Sometime child who perform numerical calculation easily but be unable to solve the mathematics question.

PROPOSED SYSTEM

As shown in Figure after login page there is three module i.e. 1. Basic Technique 2. Know sensory behaviour 3. Literacy skill. In basic technique there is some techniques so that child can learn Alphabet, object shape and direction with image and with the use of video. In literature skill there is three parts: 1. Reading 2. Writing 3. Mathematics. In reading there is image through which they can know what to do when they travel in bus and which objects is there in class how they can use that. In writing there is some basic question about child so that by practicing they can learn how to answer that type of question. In mathematics there is a layout of numbers when they click on one button it will show image of that number. Sensory behavior is classified into two parts i.e. sensory or visual.

Home Screen

Basic Skills

Literacy Skill

Know sensory behavior

Basic Skills

Alphabet

Direction

Shape of Object

Literacy Skills

Reading

Writing

Mathematics

EXISTING METHODOLOGY
As we know autistic child have speech problem. According to[1] Md. Mustafizur Rahman, S. M. Ferdous, Syed Ishtiaque Ahmed they develop computer game which will help in increase intelligibility in speech demonstrated. This can be used as a therpy. The game consists of the following part. (a) Speech Engine at the back end for speech recognition. (b) XML grammar files containing the grammar of the specific words. (c) Graphical User Interface at the frontage end.

According to[2] Md. R. Rahman, Shujon Naha, Proteek C. Roy, Ishrat Ahmed, Samiha Samrose, Md. M. Rahman, S. I. Ahmed the growth of e-learning implies that future study will include more electronic device and computer. As we know computer aided teaching technique are more effective than traditional classrooms. So they provide a software that is a class which takes care of the diversity of tastes among the autistic children of a classroom.
According to[3] Anika Anwar, Md. Musta_zur Rahman, S. M. Ferdous, Samiul Alam Anik, Syed Ishtiaque Ahmed Sometimes child have difficulties in developing speaking skills and understanding what others say to them. Lack of smoothness in the speech is one of the most commonly found problems with autistic children. So they develop a computer based game that will improve the fluency in their speech.

According to[4] Andrs Meja Figueroa, Reyes Jurez-Ramrez For autistic persons that suffer from speech impairment, expressing themselves can be quite difficult. One of the ways for them to learn a language is by the use of PECS(PICTURE EXCHANGE COMMUNICATION SYSTEM). It is a six stage protocol.

According to[5] Wan Fatimah Wan Ahmad, Hidayatun Nafsah Binti Autistic child have problem in learning no so they provide a mobile application on learning the basic numbers autistic children and to evaluate the user acceptance on the developed mobile application. This application used to achieve the objectives is Rapid Application Development (RAD) using Eclipse Android Development Tool (ADT). An observation has been conducted to 5 autistic children who have different level of IQ

according to[6] Nassir Jabir Al-Khafaji Mohamed Adel Al-Shaher autistic child have problem in learning alphabets so they provide an application The process of this application is very easy. The child run the application, then a list of alphabets will be displayed. After that, the child will choose any letter he/she wants. The system will then display words that begin with the same letter that the child has chooses.

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[5] Number Skills Mobile Application for Down Syndrome Children by Wan Fatimah Wan Ahmad1, Hidayatun Na_sah Binti Isa Muddin.

[6] M-Learning Application for Autistic Children using Android Platform by Nassir Jabir Al-Khafaji Mohamed Adel Al-Shaher Ali Abdulhussian Hassan Mohammed Jaber Al-Khafaji.