



## NEED ANALYSIS OF INSTRUCTIONAL MEDIA FOR DEAF AND MENTALLY RETARDED AT SLBN LENGAYANG

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### Abstract

*This study aims to analyze students need in the first class at SLBN students in development of learning media on the material for the theme of myself with sub-theme of part of body. This research is descriptive qualitative. Needs analysis is done based on the results of interviews, questionnaire and direct observation. The purpose of this study is to analyze the need for multimedia-based learning media software in the form of applications on android. The application is used to assist teachers in delivering learning materials for the introduction of part of body in the first class at SLBN Lengayang consisting of deaf and mentally retarded students. To collect the data, the researchers used questionnaires, interviews and observations. The results of the needs analysis obtained are: 1) The learning media used is still a presentation media 2) There is still a lack of attractiveness and student activity in teaching and learning activities.*

*Keywords: Needs analysis, instructional media, deaf, mentally retarded*

### INTRODUCTION

Mentally retarded children have intellectual abilities below the average of children their age. Children who have abnormalities due to deviation, both in terms of physical, mental, intellectual, emotions, attitudes and social behavior significantly[1]. It was caused by the damage in the central nervous system network causes the nervous system to malfunction so that the work process does not run well. Character of mentally retarded children who have weaknesses in thinking and mental limitations[2].

Then, Gearhart in Hendra Nasution given definition of deaf “A deaf person is one

whose hearing disability is so great that he or she cannot understand speech through the use of the ear alone, with or without a hearing aid”[3].

On the other hand, while children with hearing impairment have hearing loss. The term deafness is taken from the word “tuna” and “deaf”, tuna means less and deaf means hearing. Somebody is said to be deaf when he can not hear or are unable to hear voice[4]. Deafness can be defined as a state of hearing loss which results in a person not being able to perceive various stimuli, especially through the sense of hearing[5].





In addition, Indonesian people generally call deaf people are deaf, mute, dumb, and deaf[6]. They said that deafness is divided into two categories, namely deaf (deaf) or less hear (hard of hearing). Deaf is a child who his sense of hearing is damaged in a severe level so that his hearing is not working again. While not hearing is children whose sense of hearing has damage, but can still function for hear, both with and without using hearing aids. Moreover, children who have the same opportunities as other children regardless of their shortcomings, but we focus on their strengths [8]. So, it can be concluded deafness is concluded that a person who is deaf can not hear very well.

The background of this research, based on the fact of the diverse abilities of students, so that interesting instructional media are needed and the interest of students with special needs of the deaf class in the teaching and learning process. It rather difficult because they have to use sign language, sometimes students find it difficult to understand the lesson. Moreover, the students in the first class, they need more attention because that age can't take long to learn. So that, the purpose of design learning application with multimedia-based technology is to turn conventional learning into digital learning. The things that are prerequisite conditions include[9]. Especially those related to the use of the internet, namely: 1) Teachers and students must have easy access to technological devices including Internet connections, 2) digital content is

available. (teaching materials) that are easy for teachers and students to understand, 3) Teachers must have knowledge and skills in using technology, and 4) resources to help students achieve academic standards

Therefore, development of the technology requires us to be able to adapt to follow its development technological developments can be used as solutions and innovations in the field of learning, especially the creation or development of learning media to increase the interest of students with special needs [10]. One of them is in the use of multimedia technology in the field of Special School (SLB) education. In the field of education, special schools are in dire need of instructional media as a means of supporting to further assist students with special needs in the learning process. Media is anything that can be used to transmit messages from sender to receiver recipient so that it can stimulate thoughts, feelings, attention and interest and attention students in such a way that the learning process occurs. In conclusion, media is learning tool used in teaching learning activities. Interactive multimedia is media that can present a learning, objects and processes that complex, abstract and technical in class so that students will interested, easy to understand and don't feel bored[11].

Based on an interview and questionnaire with a teacher who teaches in class 1 SLBN 1 Lengayang, it shown that teaching and learning activities have not used





multimedia as a means of teaching and learning. Though, there are some computers and tablets in the school. Currently, the learning media used by the teacher at SLBN 1 Lengayang are pictures. How to deliver the material taught using image media in the form of prints from image printing equipment.

Consequently, most students are less attention and less active in participating teaching and learning process. Especially, in the theme of "Myself" about introduction of part of body, most students with special needs have not been able to know the names of their own body parts. This is because of the limitations they have. For example, in introducing the name of one of the limbs, the teacher must practice by raising his hand, repeating it over and over again, and doing sign language movements. Characteristics of deaf children have difficulty communicating, while mentally retarded children have low intellectual abilities. This condition makes it difficult for them to understand the learning material concretely[12].

Constraints in teaching and learning activities become obstacles for students in understanding the subject matter. Media is a vehicle for channeling learning information or distributor message. Therefore, the researchers made this study with the title "analysis of the learning media needs of the deaf and grahita students of SLBN 1 Lengayang"[13].

## METHODS

This study uses a qualitative descriptive approach. This approach is intended to determine the use of media in the teaching and learning process at SLBN 1 Lengayang which consists of 66 students with 13 teachers and headmaster. The sample of this research are 1st grade students consisting of mentally retarded and deaf.

Meanwhile, the population is the object of research that is used as a source of research data. In this study, the population is teachers at SLBN 1 Lengayang and the sample is part of the study population. In this study, the samples were a teachers at the first class SLBN 1 Lengayang[14].

The research methodology used in this research is data collection method and system development method, including:

### 1. Data Collection Method

The data collection techniques used are divided into two types, namely primary data collection and secondary data collection. The primary data collection using interview techniques and the secondary data using library research techniques.

### 2. System Development

In the development of the system used multimedia development methodology according to Luther in that indicators of the use of learning media include planning, implementation and assessment of learning outcomes[15].



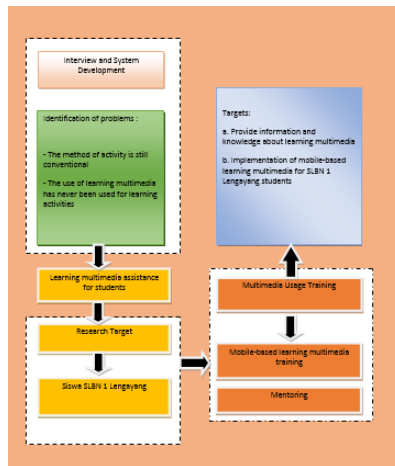


Figure 1. Schematic of Research Activities

## RESULTS AND DISCUSSION

### Ongoing System Analysis

Based on observations, researchers were found that the teachers only use pictures as learning media at SLBN Lengayang, Pesisir Selatan Regency. So that students who are deaf and mentally retarded often do not understand the subject matter, and teachers also often feel overwhelmed in delivering material such as sub-themes of body parts. This is due to the small number of students so that one class is filled by deaf and mentally retarded students. Therefore, special need such as Mentally retarded children need services learning that refers to needs special because it has the ability or learning limitations and social adaptation is below the average child's ability in general (Johanes, Sukoco, 2016). In addition, the strength analysis are of the high sense curiosity of deaf children towards something. The use of the sense of sight, making it more sensitive than the senses of

hearing and the senses of the speaker and they have agile and active motor movements. (Fajriati, Kusuma, 2018).

In addition, the teacher is still minimal in the use of learning media, such as in the introduction of body parts so that students cannot understand their body parts properly and correctly. Although, they have several computers and tablets in the school but the technology is not used maximally.

Based on the result of the interviews who teach mentally retarded and deaf at class I SLBN Lengayang, it can be concluded currently the teacher only use pictures as media in teaching learning process, and she hope can use other media more attractive and visual for her students.

### Future Develop System Analysis

Today's, technology of computer is very helpful for activities in various ways, in the household, in the office, the manufacturing sector and the world of education. Especially, in the education, starting from designing lesson materials, delivering learning, to reporting learning assessments (Harison, Busran, Putra, 2015).

In this research, the method will be developed is an android-based learning multimedia, as a learning media designed to help deaf and mentally retarded students understand material with sub-themes of part of body.

Through this multimedia, it also directly helps teachers provide material to students





at SLBN 1 Lengayang more easily and interestingly.

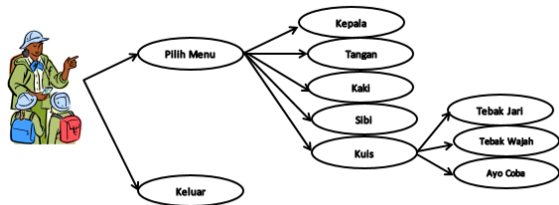


Figure 2. The system will be develop

In the use case figure above, it is a description of the scenario and the interaction between the user and the system. The use case diagrams describes of relationship between users and activities that can be carried out in the application. In the picture, it is explained that the actor is a student and the use case itself is a system, which consists of menus and exits. The menu system consists of head, hands, feet, sibi, quiz, which use case quiz consists of guessing fingers, guessing faces and let's try, that is the analysis of making this application will be develop.



Figure 3. Application Demo

## CONCLUSION

Before starting research on development, need analysis is the first step to find out the situation that occurs in the field. The conclusion that can be obtained from the analysis that it is very necessary for making a learning aid for deaf and mentally retarded students especially using technology at SLBN 1 Lengayang

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