

THE EFFORT TO IMPROVE THE MOVEMENT OF RHYTHMS OF STUDENT WITH HEARING IMPAIRMENT THROUGH BKPBI LEARNING

(Sound and Rhythm Perception Communication)

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Abstract— The background of this study is the lack of rhythmic movements of students with hearing impairment in BKPBI learning. The purpose of the study was to see the increase in rhythmic movements of students with hearing impairment at Prima Mulia Bhakti Special School B through BKPBI learning. By using Experimental method with one group pretest- posttest design, the study was conducted in Prima Bhakti Mulia Special School B Cimahi with 7 students as the samples. This study used a treatment in each meeting. The students were taught rhythmic movements based on their abilities. The SPSS 22 was used to analyse the data. The result shows that there is improvement in pretest score and post-test score which indicates the improvements of students' rhythmic movements. It concludes that there is an improvement on the students' rhythm movement through BKPBI learning.

Keywords—Rhythmic Movements, Students with hearing impairment, BKPBI Learning (Development of Communication Sound and Rhythm Perception)

1. Introduction

The lack of rhythmic motion in students with hearing impairment in BKPBI learning causes the lack of rhythmic movements. In BKPBI learning, it is difficult to include rhythmic learning. Therefore, the movement of rhythm is very important in BKPBI learning so that they can maximize their hearing and it can also deny the movement of the rhythm of them. The purpose of this study is to see an increase in the rhythmic movements of students with hearing impairment in BKPBI learning. From the results of this study, it is expected that in the future, rhythmic learning can be used so that the movements of the deaf students can increase.

The research conducted by Weni Winarti at Special School B, Garut Regency was about the application of Sound and Rhythm Perception Communication to the ability to pronounce the "Ng" phenom in children with hearing impairments. Winarti (2017) stated that "The lack of exercise and habituation of children in oral conversations has an impact in the ability to pronounce specifically on the phenom "Ng" which can always be pronounced "n". This phenom can be attributed to this research with the purpose is to know how the effect of PKPBI towards the pronunciation of the phenom "Ng" in children with hearing difficulties.

Deaf is a heterogeneous condition with far-reaching effects on social, emotional, and cognitive development (Fellinger, Holzinger, & Pollard, 2012). The term "deaf" comes from a pathological view of deafness, therefore designating people whose status as "deaf" is determined solely by their inability to listen (Perlmutter, 1991). Somantri (2007) states that "deafness can be interpreted as a state of hearing loss that results in a person which unable to capture various stimuli, especially through his sense of hearing".

Somantri Sutjihati (in Andreas Dwidjosumarto, 1990) states that someone who is not or less able to hear voices is said to be deaf ". Deaf is divided into two categories, namely deafness (deaf) and hard of hearing (hearing). Deaf children in this study were the children whose sense of hearing is severely damaged so that their hearing do not function anymore. Whereas, hard of hearing is attributed to children who is hearing senses are damaged, but can still function to hear, both with and without using hearing aids.

Deaf students have communication and learning problems that are strengthened when they attend higher education institutions that do not have facilities that meet their needs (DeWitt, Alias, Ibrahim, Shing, & Rashid, 2015). Deaf children as an individual, as well as social beings like children in general, are certainly faced with various problems and problems in everyday life. The problem faced by deaf children is the

obstruction of communication with the environment. For children with normal hearing, since childhood they are able to learn languages or speak by imitating words from the results of listening skills in the environment. While deaf children are not able to hear or capture other people words or talks through their hearing.

It challenges deaf views as a pathological condition to be treated or corrected and concentrate on the community with its own language, tradition, and culture (Perlumtter, 1991). Effendi (2008) states that the hearing process is categorized as normal, if the sound source near the ear emits sound vibrations and seizes into any direction can be caught and enters the ear to make the auditory drum vibrate.

The child is only able to comprehend the conversation of other people or the person speaking through their lips. The inability of deaf children to hear causes them to experience obstacles in language development and speech. Sign language is the most important way of communication between people with hearing loss and normal people (Vinay Kumar, Goudar, & Desai, 2015). Deaf children experience obstacles in language development and talk as a result of damage or malfunction of some or all of the hearing instruments, causing deficiencies or loss of hearing ability. Even though children are deaf or lack the ability to hear, they still have hearing remnants that can still be utilized.

If speaking verbally, in general deaf students are less able to control the intonation of sound and speech rhythms tend to be flat or monotonous (Svirky et al., 2000). The rest of the child's hearing needs to be trained so that they can be familiar with sounds, words, or language. Lack of hearing ability will have an impact on children's speech skills. To practice not low hearing and speaking skills in deaf children, an intensive and carried out Sound and Rhythm Perception Communication (BKPBI) exercise is needed earlier.

There are some classification of deaf children: (1) 0db indicates optimal hearing, (2) 0-26db indicates optimal hearing, (3) 27-40db indicates optimal hearing, (4) 41-55db indicates optimal hearing, (5) 56-70db indicates optimal hearing, (6) 71-90db can only hear sounds that are very close, sometimes deaf, requiring intensive special education requires hearing aids and speech training specifically (weight), (7) 91db perhaps aware of the sound or sound and vibration, much depends on the vision of on hearing for the process of receiving information and the person concerned is deaf (very heavy).

Communication, perception, sound and rhythm (BKPBI) is one of the special programs given to deaf children. Developing communication, perceptions, sounds and rhythms is not just an exercise in speaking and listening. BKPBI is a coaching or training in understanding sounds that are performed spontaneously or programmed so that the remnants of hearing and the feeling of vibration (vibration) possessed by deaf children can be maximized as well as possible to interact or socialize with the surrounding environment. The stages in conducting BKPBI learning are as follows; (1) Sound detection stage, (2) Sound discrimination stage, (3) Sound identification stage, (4) Compensation stage. Awareness of the sound needs to be given as early as possible to the child. Therefore BKPBI

training must be given as early as possible so that children are accustomed to recognizing a sound until the child's ability to move rhythms can be maximized. (Implementation, Communication, Sound, Rhythm, & Utari, 2014).

According to Mahendra (2017), Movement Education is a learning model in physical education that determines the teaching of concepts and components of motion.

Rhythmic movements present various forms of activities that can be systematically integrated into learning activities, including children who have learning difficulties. Rhythmic motion is a science in which there are elements of rhythmic motion patterns. Rhythmic science is applied science that is used by teachers to compile or design learning programs both inside and outside the classroom.

Delphie (2006) states that rhythmic motion is a separate science as a social science that requires trials in the field in the form of application practices (skills) until finally someone who has done enough field activities and is much having solution for expected problems will find themselves as "capable" teachers and this means that they have "arts".

For the teachers who perform the application of rhythmic movements in their learning activities, they will face various problems of students who need a solution immediately. These problems include boring in learning, learning difficulties and factors related to students' behavior, mental, physical, or intelligence.

Delphie (2006) states that "this rhythmic motion will be applied to all types and levels of abnormalities, although in particular there are differences in perception: understanding, creativity and abstraction of each ALB". Motion and rhythm as a tool in the field of teaching have the following functions: (a) Increasing physical growth and development, (b) increasing physical and health awareness, (c) increasing movement skills, (d) increasing mental reasoning and intelligence, (e) growing a creative, reactive, and social life. The application of motion and rhythm to them is expected to use an approach in the form of: (a) It is expected that every educator has the expertise of expression because the imagination of the teacher is needed when conveying exercises through strong facial expressions, for example: when the teacher wants a hard or soft movement. (b) When teaching takes place, it should be accompanied by reasonable speaking and face to face, so that students who are deaf, can see the teacher's lips while speaking. (c) Making a team game pattern or involve other friends to jointly do programmed moves. This is necessary for the development of its socialization. (d) It is necessary to show this student an atmosphere of joy and a good sense of friendship. (e) Every changing in situation should be expressed by starting expressions that are clear and easily understood by them, as well as for the movements taught to them. (f) When conveying a certain pattern of motion, accompanied by a motion solution which is a problem for him. For example, they have to make certain movements if they are given a picture: a snake.

2. Methodology

The type of research that will be used in this study is Pre-experimental One-group pre-test-post-test design. In this case,

the populations are 28 students with hearing impairment. The samples are chosen by the researcher with characteristics: lack of cognitive, lack of affective, and high emotional.

The samples in this study were 7 deaf children of 5th grade at Special School B of Prima Bhakti Mulia Cimahi. In this study, instruments in the form of questions we made by researcher to achieve research objectives which is to improve rhythmic motion.

The data validity test technique used in this study was the content validity test. Susetyo (2015) states that "Content validity is validity that will check the compatibility between the items of the test made with indicators, material or objectives among the items of the test made with indicators, material or predetermined learning objectives".

$$\text{Percentage} = \frac{f}{\sum f} \times 100\%$$

Susetyo (2015, pp. 116)

Information:

P = Percentage

f = frequency matches according to the appraiser

$\sum f$ = number of assessors

The researcher analyzed the data by using the Wilcoxon test. The Wilcoxon test is a statistical method that is used to test the difference in two data pairs, so the number of data samples is always the same. In parametric statistics, this test has similarities with the test of the difference in the two correlated population averages. The positive and negative signs of the difference in the data pairs are then ranked. These are the main elements used in the analysis. Besides that, it can also be used to test one sample using a certain median which will be tested as a standard or benchmark. The use of one sample in this test is based on the median score as a deduction from the data.

By using Wilcoxon whether with two samples or one sample, the original data is not directly analyzed but using the difference between the two scores and then ranks. This is the basis for the Wilcoxon test as not included in parametric statistics that synthesize certain distributions. After being calculated with the help of the SPSS 22 application, it can be seen the validity of the instrument of the non-parametric test with the Wilcoxon test given as follows:

4. Result and Discussion

From the research analysis, the result obtained are presented in the table below:

Table 1

Ranks	N	Mean Rank	Sum of Ranks
Posttest – Pretest	0 ^a	.00	.00
Negative Ranks	7 ^b	4.00	28.00
Positive Ranks			
Ties Total	0 ^c		
	7		

Posttest < Pretest

a. Posttest > Pretest

b. Posttest = Pretest

From the output obtained:

Negative Ranks or difference (negative) rhythm movements through BKPBI learning for Pretest and Posttest are 0, both in value (N), (Mean Rank), and (Sum Rank). This value of 0 indicates that there was no decrease in reduction from the pretest value to the posttest value. Positive or difference (positive) rhythm movements through BKPBI learning for Pretest and Posttest. There are 7 positive data (N), which means that the 7 students who were sampled experienced an increase in rhythmic motion through BKPBI learning from the Pretest and Posttest scores. Mean Rank or the average increase is 4.00 while the number of positive ranks / sum of ranks is 28.00. Ties is the similarity of the value of the pretest and posttest. In this study the value of ties is 0. So it can be said that there is no similar value between the pretest and posttest.

Table 2

Test Statistics ^a	Posttest - Pretest
Z	-2.456 ^b
Asymp. Sig. (2-tailed)	.014

From the results above, there are differences in the values of pretest and posttest. It means that there is an increase in rhythmic movements of student hearing impairment through BKPBI learning (Sound and Rhythm Perception Communication Development) at Special School B of Prima Bhakti Mulia Cimahi.

Based on the output of the "Statistical Test" it is known that Asymp. Sig (2-tailed) is 0.014 greater than <0.05. It can be concluded that "Hypothesis is accepted". It means there is an increase in the rhythm of deaf students through BKPBI learning for the pretest and posttest values.

"There is an increase in the movement of the rhythm of deaf students through BKPBI learning".

Deaf is a heterogeneous condition with far reaching effects on social, emotional, and cognitive development (Fellinger et al., 2012). As a result of the lack of functioning of the child's hearing, students with hearing impairment experience obstacles in communicating with the ir surroundings. Hearing of optimization of hearing deaf children is necessary for everyday life, especially for socialization with the environment around children. This also results in the lack of psychomotor aspects of children. Students with hearing impairment are usually more passive and less responsive in responding to things, especially in response to sound. Rhythmic motion is one way that should be done to improve the psychomotor aspects of students with hearing impairment. Here are exercise for students with hearing impairment to responds the sounds through gestures, in other words deaf children express the sounds that we introduce. One program that is able to maximize the hearing function of students with hearing impairment is the BKPBI program (learning communication for sound perception and rhythm).

The communication of sound perception and rhythm is an exercise in understanding sounds made by students with hearing impairment so that the remaining hearing can be maximized. Then, the development of language and speech of children can be increased and can socialize with the wider community. Learning to develop communication of sound perception and rhythm can also be combined with rhythmic learning. In addition, to language and speaking skills, deaf children also have good psychomotor aspects so they become active and are trained to convey sound through motion.

The researchers conducted the study to determine whether or not there was an increase in the movement of rhythms of students with hearing impairment at Special School B of Prima Bhakti Cimahi through BKPBI learning. Researcher tried to apply rhythmic movements in BKPBI learning by starting with the pretest to find out what to improve from student with hearing impairment. Then the treatment, where the researchers applied rhythm in BKPBI learning during 12 meetings with students with hearing impairment at Special School B of Prima Bhakti Mulia Cimahi. After that, the researchers conducted a posttest as a measure to determine whether or not there was an increase in rhythmic movements from student with hearing impairment.

From the results of data processing and analysis that researchers have done and based on all explanations and supporting theories related to motion test rhythm of deaf students, it is obtained several interesting things to be discussed related to testing efforts to improve the movement of rhythms of students with hearing impairment through learning BKPBI (Development of Perception Communication Sound and Rhythm).

The researchers conducted a Test Statistics to find out whether the hypothesis that the researchers stated was accepted or rejected. From these calculations obtained "Test Statistic"

output known as Asymp. Sig (2-tailed) 0.014 smaller than <0.05 . It can be concluded that "Hypothesis is accepted". It means that there is an increase in the movement of deaf students through BKPBI learning for pretest and posttest. The results explained that there was an increase in the rhythm of movement of students with hearing impairment at SLB B Prima Bhakti Mulia Cimahi.

5. Conclusion

Based on the results of data processing and data analysis, the conclusions from this study are BKPBI learning has an effect on improving the movement of rhythms of students with hearing impairment at SLB B Prima Bhakti Mulia Cimahi.

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