



Program for Learning the Pronunciation of Phonemes for Children with Hearing Impairment at SLBN Cileunyi

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Abstrak

Berdasarkan observasi pendahuluan di SLBN Cileunyi, ditemukan kesalahan pengucapan bunyi bahasa pada anak dengan hambatan pendengaran kelas 3 SD. Hal ini terjadi karena dampak dari kehilangan pendengaran yang dialami mereka. Sekolah telah mengupayakan latihan pengucapan bunyi bahasa yang terintegrasi dalam kegiatan pembelajaran, namun dalam perencanaan dan pelaksanaan pembelajarannya masih kurang optimal. Tujuan dari penelitian ini adalah untuk mengembangkan program pembelajaran pengucapan bunyi bahasa pada anak dengan hambatan pendengaran kelas 3 SD di SLBN. Penelitian ini menggunakan pendekatan kualitatif dengan desain penelitian studi kasus. Teknik pengumpulan data berupa wawancara, observasi, dan tes lisan. Program dikembangkan berdasarkan kajian secara empirik dan teoritik yang selanjutnya divalidasi oleh ahli. Program ini berisi ruang lingkup berupa latihan pemanasan organ artikulasi dan pernapasan, latihan pembentukan fonem, dan latihan perbaikan fonem. Penelitian ini menghasilkan sebuah program pembelajaran pengucapan bunyi bahasa yang dibuat berdasarkan kebutuhan anak dan kondisi objektif sekolah serta berdasarkan teori pendukungnya. Melalui program ini diharapkan guru dapat melaksanakan pembelajaran pengucapan bunyi bahasa dengan baik dan terencana berdasarkan kebutuhan anak.

Kata Kunci: Program pembelajaran, Pengucapan bunyi bahasa, Anak dengan hambatan pendengaran

Abstract

Based on preliminary observations at SLBN Cileunyi, the errors the pronunciation of phonemes were found in children with hearing impairments in grade 3 elementary school of SLBN Cileunyi. This happens because of the impact of hearing loss experienced by them. Schools have made efforts to practice the pronunciation of phonemes that are integrated into learning activities, but the planning and implementation of learning are still not optimal. The purpose of this study was to develop a program for learning the pronunciation of phonemes for children with hearing impairments at SLBN Cileunyi. This study uses a qualitative approach with a case study research design. The program was developed based on empirical and theoretical studies which were then validated by experts. This program contains the scope of warm-up exercises for articulation and respiratory organs, phoneme formation exercises, and phoneme improvement exercises. This research resulted in a program for learning the pronunciation of phonemes which was made based on the needs of children and the objective conditions of the school and based on the supporting theory. Through this program, it is hoped that teachers can carry out learning to pronounce phonemes well and in a planned manner based on the needs of the child.

Keywords: Learning program, Pronunciation of Phonemes, Children with hearing impairment

Introduction

Children with hearing impairments are unable to participate in spoken language properly, so their language does not develop optimally. Children with hearing impairments use their visual function to get language information that they cannot get through their hearing function, so it is very possible for them to mispronounce phonemes. According to Sadjah, (2013, p. 46) difficulty receiving sound stimuli in children with hearing impairments has an effect on the lack of language development. Furthermore, according to Asmoro (2016), understanding the perception of language sounds visually is not accurate enough, so children with hearing impairments are not able to move their articulation tools precisely even though their articulation tools are in normal conditions. The research results from Rosidah and Ika (2021) explained that there are errors in vocal and consonant sounds in children with hearing impairments. There is a change in sound caused by phonological and hearing disorders so they difficult to speak properly. Research from Asmoro (2016) who conducted research on the sound mastery of children with hearing impairments aged 10-12 years in minimal pair words, from 10 respondents, the significant average value obtained was 28-62%, if represented mostly in pronouncing words respondents omitted the phonemes /k/, /g/, /r/, /s/, /j/, /d/, and /ng/, besides that, there were also phoneme changes namely /a/-/e/, / b/-/p/, /t/-/d/, /r/-/l/, /r/-/h/, and /g/-/h/.

Children with hearing impairments are part of students with special needs based on Permendikbud number 157 of 2014 concerning Special Education Curriculum in Article 4 paragraph 1. Furthermore, in Article 10 paragraph 2 it is stated that special needs programs, especially for children with hearing impairments are the development of communication, perception, sound, and rhythm (PKPBI). Based on the Regulation of the Minister of Education, Culture, Research and Technology of the Republic of Indonesia No. 7 of 2022 concerning Content Standards in Early Childhood Education that one of the special materials for students with hearing impairments is the development of communication which includes: pronunciation

of phonemes, words, oral sentences, sign language, sign language, total communication, and direct communication.

The ability to communicate orally is important for children with hearing impairments to be able to meet their daily needs and communicate with the wider community. According to Hermanto (2008), children with hearing impairments and hearing people will certainly live side by side so awareness is needed between the two of them to understand each other's ways of communication between them. Mastering spoken language in addition to signing will make it easier for children with hearing impairments to communicate with the wider community. Articulation exercises and optimization of hearing function for children with Hearing impairments can develop their oral language skills, one of which is forming speech sound patterns (phonemes) according to the rules (Rusyani, 2012). In each SLB, especially for children with hearing impairments, there is a special program in the form of developing communication, perception, sound, and rhythm (PKPBI) which is the development of communication and appreciation of sound which is carried out intentionally or unintentionally, so that hearing and vibrational feelings are still owned by children with hearing impairments. hearing can be used optimally to integrate with the surrounding environment (DITPLK, 2014, p. 6).

The results of observations in the field found errors in the pronunciation of language sounds in children with hearing impairments in grade 3 elementary school. Children have difficulty distinguishing the pronunciation of the phonemes /p/, /b/, /m/, difficulty pronouncing the phonemes /g/, /k/, /c/, and other phonemes that need to be corrected. Errors in the pronunciation of language sounds have an impact on the child's lack of ability to develop oral communication, children are too dependent on signs and are used to saying meaningless words in communication. The cause of this mispronunciation of language sounds is due to limitations in receiving the correct sound information through hearing and articulation organs that are rarely trained to pronounce phonemes making it difficult to

pronounce phonemes correctly. Schools seek to practice pronunciation of language sounds or phonemes for children with hearing impairments that are integrated into learning activities. Ideally, the teacher conducts an assessment to find out the ability to pronounce language sounds in children before carrying out learning to practice pronunciation of language sounds, but in reality, in the field, the teacher has not carried out an in-depth assessment of the ability to pronounce language sounds in children and the implementation of pronunciation exercises is only carried out spontaneously during learning activities. The child only mastered the pronunciation of the easiest phonemes, namely vocal phonemes and several bilabial phonemes namely /b/, /p/, and /m/ and did not experience an increase in pronouncing other phonemes, because the phoneme exercises did not vary and learning was not planned. For this reason, it is necessary to develop a speech sound pronunciation program for this class, because it will make it easier for teachers to carry out learning sound pronunciation in a more planned manner and based on the needs of the child.

Based on the things described above, the authors are interested in conducting research on developing programs for learning the pronunciation of language sounds for children with hearing impairments in grade 3 SD at SLBN Cileunyi. Based on what has been described, the authors are interested in conducting research with the title "Sounds Pronunciation Program for Deaf Children in Class 3 SD at Cileunyi State SLB", namely by creating a speech sound pronunciation program based on an assessment of the ability to pronounce language sounds, which will be integrated into learning activities in deaf children in grade 3 elementary school at Cileunyi

State SLB, some of the previous studies that were reviewed in this study are as follows. Research from Tati Hernawati, Imas Diana Aprilia and Dudi Gunawan (2020) entitled "Development of Oral Language Skills in Children with Hearing Impairments through an Integrated Program". This study aims to determine the effectiveness of an oral language skills program for children with hearing impairments. This study both made

adjustments to existing programs based on the results of assessments in children with hearing impairments, but in this study, the effectiveness of the program was tested using experimental methods while in this study it only reached program development, the difference also lies in the specificity of the material in the program, namely in research by Hernawati, et al (2020), the material consisted of reading speech and speaking skills, while in this study the material being taught focused on the pronunciation of language sounds or phonemes. Furthermore, research from Riska Nurjanah, Toni Yudha Pratama, and Reza Febri Abadi (2020) entitled "Application of the Multisensory Method in Improving the Articulation Skills of Students with Hearing Impairments". This study applies a multisensory method to improve the articulation skills of children with hearing impairments in vocal and bilabial consonant phonemes. The application of the multisensory method used is one of the references for researchers to develop programs in this study. The research difference lies in the research methodology used. Research conducted by Nurjanah, et al. (2020) used an experimental method with an SSR approach while this study used a qualitative approach with a case study design. Furthermore, research from Winarti, et al (2019) entitled, "The Application of Uni Perception Communication Development and Rhythm to Improve the Ability to Pronounce Phonemes /NG/ in children with hearing impairments at SLBN B Garut Regency". This study examines the effect of implementing PKPBI to improve the ability to pronounce the phoneme /NG/ in children with hearing impairments. The similarities in this study are that both focus on communication development programs for children with hearing impairments. The difference in research lies in the methodology used and the phoneme material to be improved. In research from Winarti, et al (2020) the focus was on the phoneme /ng/ only, while this research contained material with several phonemes namely /t/, /d/, /c/, /j/, /k/ and /g/ based on the results of the phoneme pronunciation assessment. Furthermore, research from Hasan (2017) entitled "Implementation of Speech Development Through Individual Learning for Deaf Children at SLB Karya Tabing Padang.

This research describes the learning process of speech development carried out by the class teacher in the form of a learning plan, implementation, and evaluation activities. The learning process becomes an illustration for researchers to develop programs for pronouncing the phonemes. The same of this research uses a qualitative approach, but what differs is that this research aims to describe the process of learning speech construction while this research aims to develop a program for learning the pronunciation of phonemes based on the objective conditions of students' and class abilities.

Method

This study uses a qualitative approach with a case study research design. This research procedure went through four stages, namely as follows:

1. Collect empirical and theoretical data regarding learning the pronunciation of phonemes for children with hearing impairments.
2. Designing a program for learning the pronunciation of phonemes for children with hearing impairments in grade 3 SD at Cileunyi SLBN based on the data obtained in the first stage.
3. Test the validity of the program on experts in speech learning namely Lecturers, Teachers, and Speech Therapists.

The subjects in this study were children with hearing impairments in grade 3 at SD SLBN Cileunyi, namely DR and MA, both of whom had severe hearing loss with a hearing loss level of more than 90 dB and grade 3 teachers who taught DR and MA.

The data collection techniques used in this study were interviews, observations, and oral tests of the ability to pronounce phonemes in children. The data analysis techniques used in this study are data reduction, data presentation, and conclusions.

Testing the validity of the data used in this study is by technical triangulation. This is because researchers use a variety of data disclosure techniques that are carried out to data sources, namely through interviews with class teachers, and assessment of the ability to pronounce language sounds in children with

oral tests which are checked again with data obtained through observation.

Result and Discussion

A. The Pronunciation of Phonemes ability in Children with Hearing Impaired Class at SLBN Cileunyi

Children with hearing impairments experience barriers in terms of language, especially in the pronunciation of language sounds. According to Sadjah, (2013, p. 46) difficulty receiving sound stimuli in children with hearing impairments has an effect on the lack of language development. This is a factor that causes children with hearing impairments to have difficulty pronouncing phonemes. In the journal Asmoro (2016, p. 188), difficulties and mistakes in pronouncing language sounds occur because of the influence of health on hearing, which then changes the way the perception of language sounds becomes visual by looking at the movement of the speech apparatus which forms articulations that are less effective for children with hearing impairment to perceive, distinguish and process sounds appropriate. Thus it can be concluded that the impact of hearing loss experienced by children with hearing impairment affects their ability to pronounce language sounds, they have difficulty capturing language sounds correctly so they rely on their visual ability to see the movements of the speech apparatus to understand phonemes, but this less than optimal for children with hearing impairments to be able to move the speech apparatus properly in pronouncing language sounds.

The ability to master basic oral communication is important for children with hearing impairments in adapting to society in general, so there is a need for communication and speech development exercises, one of which is in phoneme pronunciation. In the journal Tati Hernawati, Imas Diana and Dudi Gunawan (2020, p. 362), that it is necessary to develop oral language skills in children with hearing impairments because everyone relates to others to communicate, ability in oral language skills is an important element in communicating so

that able to communicate orally with the environment people hear in general.

According to Sadjah (2013, p. 173), the implementation of an assessment of speaking ability is very necessary so that the implementation of speech training can run well. One of the objectives of conducting an assessment is to diagnose specific strengths and weaknesses so that more appropriate things can be sought in preparing a speech training program (M Hyde, 1991; Sadjah, 2013, p. 164). In the journal Gusman (2013), that before giving articulation exercises to children with hearing impairments, teachers need to identify children's abilities or words that may not be pronounced correctly, from the results of this identification it becomes a guide in compiling programs for children.

Based on the results of the study, it was found that abilities, weaknesses, and needs related to the pronunciation of language sounds in children with hearing impairments in grade 3 SD SLBN Cileunyi were obtained through assessment of phoneme pronunciation abilities, observations, and classroom teacher interviews.

The ability to pronounce language sounds in DR and MA subjects is still lacking, this is based on the results of an assessment of the pronunciation of language sounds, both of which are in the criteria of less than 75%, according to Sadjah (2013), in this criterion generally people will have difficulty understanding children. Based on the results of research, children are quite good at pronouncing vowel phonemes /a/, /e/, /i/, /o/, and /u/ and consonant phonemes such as /b/, /p/, /m/, /y/, /ny/, /ng/. Weaknesses in the pronunciation of phonemes experienced by children such as weakness in pronouncing the phonemes /w/, /f/, /n/, /t/, /d/, /r/ and some phonemes that are still not formed because they are omitted or replaced such as the phoneme /s/, /c/, /j/, /g/, /k/, and /h/. based on these weaknesses, the type of phoneme pronunciation errors experienced by children according to M.F. Berry and John Bisension (in Sadjah, 2013, p. 56) is a type of distortion, namely the change of speech sounds to other sounds such as the

phonemes /c/ and /j/ which are pronounced /ny/, and omission, namely the omission of mistakes one phoneme like the phoneme /s/ which is omitted in the word "one" becomes "awu".

Based on the research results, the level of hearing loss experienced by children is more than 90 dB, based on the classification of the level of hearing loss according to Merry Hyde (1993 in Sadjah, 2013, p. 47), at this level the child experiences hearing loss at a severe level (65- 95 dB), in which the child only slightly understands the conversation even by looking at the face of the loudspeaker, so it will be very difficult to catch everyday conversations, besides that the child does not experience abnormalities in his speech organs, so it can be determined that the cause of phoneme difficulties experienced by children apart from hearing loss they also experience speech organs that are not trained enough to pronounce these phonemes so that the child's need is in the form of practice in pronouncing the phonemes that still need to be formed and improved. According to Sadjah (2013) that the limitations in pronouncing phonemes in children with hearing impairments are generally not caused by damaged speech organs, but because the speech organs are not functioning so they become stiff.

B. Program for Learning The Pronunciation of Phonemes for Children with Hearing Impaired at SLBN Cileunyi

Before compiling a program for learning the pronunciation of language sounds, it is necessary to do an assessment of the child's speech ability first so that the implementation of the speech practice can go well (Sadjah, 2013, p. 173). According to DITPLK (2014, pp. 32-34), the first step that teachers can take in implementing a communication development program is to conduct an assessment that can be adjusted to the abilities they want to know. From the results of the study, it was found that the teacher's assessment of children's speaking abilities was in the form of observations during learning activities, but not in the standard assessment format or notes related

to the results of observations.

Based on the findings in the learning field, the pronunciation of language sounds in schools is not programmed specifically. The teacher does not make lesson plans or PPI based on the results of the assessment, because situational learning of pronunciation of language sounds is integrated into learning activities, namely when reading and counting activities the teacher also guides children to say words. Based on the type of approach according to Rusyani (2012, p. 53), this articulation learning is carried out informally, namely the type of articulation training approach that is not programmed specifically, but is integrated with the learning of other subjects and is carried out by class teachers or fields of study that correct speech. The teacher determines the material based on the phonemes that are easiest for the child to pronounce first and the words chosen are words that are familiar to the child. This is in accordance with Rusyani's opinion (2012, p.44) that articulation training material must be arranged from easy to difficult in pronunciation. In general, vocal phonemes are easier to pronounce than consonants. Likewise, the consonants that are trained must take into account the level of difficulty in pronouncing each of these consonants. From the results of the study, it was found that learning did not determine the achievement targets in pronouncing phonemes. This has an impact on the lack of reinforcement and correction when the child mispronounces the phoneme. Learning at this time is more focused so that children can read and count. Time constraints make the teacher less able to provide reinforcement for the wrong child's pronunciation, the words chosen are less varied, and phonemes that are trained are only easy phonemes so the child is not trained to pronounce other phonemes whose pronunciation is more difficult.

Based on these findings and considering the potential possessed by the school, the need is in the form of developing a language sound pronunciation learning program that is still carried out integrated into learning activities, but still based on the results of the assessment, so that it is

easier for teachers to carry out learning phonemes pronunciation consistently and according to the target determined, so as to strive for the development of the child's ability to pronounce phonemes more precisely.

C. Implementation of the Program for Learning Pronunciation of Language Sounds for Children with Hearing Impaired Class 3 SD at SLBN Cileunyi Currently

The implementation of learning the pronunciation of language sounds for children with hearing impairments in grade 3 SD at Cileunyi SLBN is carried out in a classical manner and is integrated into learning activities. In this class, learning is still focused on basic academic activities such as reading, beginning to write, and counting, learning the pronunciation of language sounds is done by justifying the pronunciation when children read words and count. Before the lesson is carried out, the teacher invites the children to say the basic vowels /a/, /i/, /u/, /e/, and /o/ several times. In line with Aprilia (2017, p.140). Step

classical speech training steps are:

1. The teacher conducts a warm-up speech exercise.
2. The teacher identifies phoneme errors in the words the child says.
3. The teacher gives an example of correct pronunciation, then the child imitates it classically.
4. The teacher asks the children to say the word in turn.
5. The teacher corrects the child's wrong pronunciation.

The method used by the teacher in learning the pronunciation of language sounds in this class is the multisensory method. In practice the teacher introduces words assisted by pictures on the blackboard, then the child says the word by looking at the teacher's lip movements, if the pronunciation is not correct, the teacher guides the child to feel the vibration and air output when pronouncing phonemes by holding your neck, nose or placing your hand in front of your mouth. In the Qoimudin journal (2016, p. 8), the results

of the study show that the VAKT approach can improve children's ability to pronounce phonemes, in this journal the phonemes /k/ and /ng/, children observe props for pronunciation models, listen to the teacher's pronunciation and then see precise lip movement and feel the tactile area of the vibration of the resonance area when pronouncing the phoneme. Based on the research results, in practice the use of this method is appropriate, but more optimized with a visual approach, while the tactile approach is not always applied.

According to Aprilia (2017, p. 135), the implementation of learning to speak will be effective if it is supported by equipment such as a PKPBI room equipped with a wide mirror, microphone, table, and speech recording equipment. Based on the results of the study, the facilities and infrastructure owned by schools support the implementation of the pronunciation of language sounds, namely mirrors, speakers, microphones, tables, chairs, blackboards, and picture cards. In practice, the media that is more often used is the blackboard or the child only sees the movement of the teacher's lips when pronouncing phonemes, mirror media is not so consistently used in justifying children's speech, auditive media such as speakers and microphones are rarely used and children do not have hearing aids. Facilities in the form of special articulation rooms are available in schools, but these rooms are also used by children with other disabilities for speech therapy, so teachers are more comfortable learning phoneme pronunciation in class with existing supporting media.

In carrying out the evaluation of learning the pronunciation of language sounds, the teacher carries it out during the learning process, to be precise when the child reads the designated word. This is the same as the evaluation of phoneme articulation learning carried out at SLBN B Pembinaan in Ramdhan's research (2021, p. 30), namely the teacher carries out evaluations during learning, for example when learning Indonesian the teacher observes vowels and consonants which the child cannot yet master. recorded in a special note. In contrast to the evaluation carried out at

SLBN 1 Padang in Gusman's research (2013, p. 51), which was carried out after articulation training was given by assessing the fluency of speech, the clarity of each letter spoken, and the sound made when pronouncing the requested word. Evaluation is really needed to determine the progress obtained, whether learning to pronounce language sounds can be successful for children or not, if it is not successful then how to handle it can be determined. According to Sadjah (2013, p. 164), one of the evaluation tools that can be used is in the form of a test, in the implementation of evaluating language pronunciation learning at Cileunyi SLBN the teacher conducts an oral test to test the child's pronunciation, but it is not included in the assessment format. The teacher does not have an assessment format in its implementation or records regarding the development of children's abilities in pronouncing language sounds. Evaluation becomes less than optimal in determining the efforts that must be made in the future whether the child should continue to practice the previous phoneme or can continue to practice other, more difficult phonemes.

Based on the explanation above, it is necessary to develop a language sound pronunciation learning program that helps teachers to optimize the use of multisensory methods and maximize the learning media that are already owned by schools, contained in more detailed learning steps and assist teachers in carrying out evaluations of learning pronunciation of language sounds as a whole. more structured and planned.

D. Development of Language Pronunciation Learning Program

The program that has been developed consists of program rationale, program objectives, program scope, program objectives, program design content, and program implementation steps. The program was developed based on findings in the field namely a. the ability to pronounce language sounds in, b. Program for learning the pronunciation of language sounds at school and b. implementation of

learning the pronunciation of language sounds and based on theoretical studies regarding learning the pronunciation of language sounds in children with hearing impairments

The contents of the program design are outlined in a table containing aspects to be studied, learning materials for pronunciation of speech sounds, learning objectives, indicators, methods and media for learning pronunciation of speech sounds, activities for learning pronunciation of speech sounds, time and evaluation of learning to pronounce language sounds. Its implementation is more specifically explained in the program implementation steps, with the scope of the exercise being warm-up exercises for articulation and breathing organs, phonemes formation, and repair exercises. The material being trained is in the form of phonemes /t/, /s/, /c/, /j/, /k/, and /g/. Besides the implementation steps of this program, there is also an assessment format for each material provided.

Programs for learning the pronunciation of phonemes are integrated into learning activities while still taking into account the needs of the child and the ability of the teacher and class to facilitate the learning of pronunciation of speech sounds. According to Rusyani (2012, p. 53), articulation learning is informally integrated into learning activities. Furthermore, according to the Directorate of Special Education and Special Services Development (2014), the learning of sound pronunciation is carried out in an integrated manner, that is, it is integrated into other subjects. In this program learning the pronunciation of phonemes is integrated into reading activities.

The program for learning the pronunciation of language sounds for children with hearing impairments that was developed was validated by three validators. One person is a Special Education Lecturer at Sultan Ageng Tirtayasa University, one class teacher at Cileunyi SLBN, and one speech therapist at Cileunyi SLBN. In general, the three validators stated that this program is

feasible to use in learning the pronunciation of language sounds. The suggestions given by several validators and used as material for program improvement are as follows:

1. Adding the child's identity in the form of age and degree of hearing loss.
2. Reconsider the use of auditive media in the form of loudspeakers, bearing in mind that children have severe hearing loss so this media is not very helpful and the preparation of this media also requires more time.
3. Learning activities are made more integrated into other learning activities, in this program, they will be more involved in reading activities.
4. More detailed time allocation in the contents of the program design and learning steps.
5. Make a special guidebook for learning steps containing pictures in the form of instructions and simpler language.

Programs that have been validated based on revision suggestions from the validator along with the program manual can be seen at the following link:



Figure 1.1 Program Draft After being validated
(<https://bit.ly/DRAFTPROGRAMVALID>)



Figure 1.2 Program Guidebook
(<https://bit.ly/BUKUPANDUANPROGRAM>)

Conclusion

This study aims to develop a program for learning the pronunciation of language sounds in children with hearing impairments in grade 3 SD at SLBN Cileunyi. It started with a problem in the form of difficulties in pronouncing language sounds in children with hearing impairments in grade 3 at this school. Schools have attempted to practice pronunciation of speech sounds for children which are carried out integrated into learning activities, but the program and its implementation are still not optimal, so it is necessary to develop a more ideal speech sound pronunciation learning program.

The program for learning the pronunciation of language sounds for children with hearing impairments is based on empirical and theoretical studies. Empirically the researcher looked for data in the field related to the child's ability to pronounce language sounds, the speech sound pronunciation learning programs that exist in schools and the implementation of language sound pronunciation learning that takes place at school. The researcher uses a qualitative approach with a case study design to find these data objectively and comprehensively. Furthermore,

theoretically, researchers use several theories and references regarding learning the pronunciation of language sounds, one of which is from Sadjah (2013). Based on the analysis of the findings in the field and theoretical studies, a program for learning the pronunciation of the phonemes was developed integrated into learning activities, the sounds of language or phonemes to be trained are the phonemes /t/, /s/, /c/, /j/, /k/, and /g/.

The language sound pronunciation learning program that has been compiled is then validated by three program validators. Suggestions from the validator are taken into consideration in the development and improvement of the program so that it becomes operational. These suggestions are in the form of adding the identity of the age and level of hearing loss for children to the basic part of the program's thinking, considering the use of learning media that is more suitable for children's needs, clarifying the allocation of time used, improving program steps to be more integrated with learning activities, and laying out the steps the program steps into the guidebook are equipped with simpler language and picture instructions so that it is easier to understand by class teachers who will carry out learning the pronunciation of language sounds. After being revised based on the validator's suggestions, the program became an operational program. The program is expected to help teachers and students in the implementation of speech learning, especially in phoneme pronunciation.

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Author profile

The author of this journal is named Lamina Amalia Putri, born in Alai Kundur on January 23, 2001. She is the first child of three siblings. The writer is Indonesian and Muslim.

As for the author's educational history, namely studying starting from early childhood education at Pertiwi Kindergarten in 2006, then continuing elementary school at SDN 013 Teluk Air in 2006-2012, then junior high school at SMPN 1 Karimun in 2012-2015, and so on senior high school at SMAN 1 Karimun in 2015-2018.

The author's organizational experience while being a student was becoming a membership bureau in the UPI PAI-SPAI Tutorial activity committee for the 2018-2021 period.

The author also has some experience working on the independent campus program including teaching at SDS Austine Karimun in the Teaching Campus activities during March-June 2021 and apprenticeship at YSIB Banten in the field of education in the Independent Internship Activities during August 2021-January 2022.