Application of Phonetic Placement Method for Articulation Disorder in Children with Intelectual Disablities: A Single Case Study

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Abstract

Introduction: Speech intelligibility is an important factor in verbal communication. Children with intellectual disabilities with intellectual disabilities will face difficulties in communicating due to reduced speech intelligibility. This condition will affect social skills, mental mental state, and academics. Articulatory misplacement is one of the factor that makes difficulties in articulation accuracy.

Objective: The use of the phonetic placement method to improve the ability to produce /m/ in the initial position of words has not been effective for children with intellectual disabilities in this case.

Method: Using a single subject experiment, with a one group pretest-posttest design. The participant was a 7-year-old girl with articulation disorder /m/ in the initial position of the word and had never received speech therapy. Data collection was conducted through interviews with the client's parents, direct observation of the client, tests, and document studies. Speech therapy was conducted for 10 sessions with an emphasis on bilabial phonetic placement exercises. Perceptual assessment by comparing the ability to produce /m/ in the initial position of the word before and after therapy.

Results: In the evaluation assessment, there has been no improvement in the client's ability to produce /m/ in the initial position of the word.

Suggestion: It may be possible to increase the frequency of therapy to see more significant improvement, and adjust the therapy materials.

Keywords: articulation, intellectual disabilities, phonetic placement, speech intelligibility.

INTRODUCTION

Communication is the exchange of information from sender to receiver, through codes that are mutually understood by both (1). Communication is essential in human life. Communication is carried out to convey ideas, thoughts, needs, and needs and become an intermediary to form relationships or relationships between people. In people with intellectual disabilities, especially mild and moderate intellectual disabilities, verbal communication is the main communication (2).

However, people with intellectual disabilities often have problems with verbal communication due to impaired speech production and/or impaired hearing. Furthermore, these problems will lead to miscommunication and difficulties insocial interaction, and wider consequences such as behavioral problems and isolation (3). People with intellectual disabilities are very common to have problems with speech production. Even as people with intellectual disabilities grow older, disturbances in speechproduction that affect speech clarity will persist (3). According to Emerson, mentioning children with severe intellectual disabilities, as much as 80% find it difficult to develop effective speech skills (4).

Children withintellectual disabilities have more misinterpretation than children with disabilities. In people with intellectual disabilities, according to Robert and colleagues, documenting someone with Down syndrome has a reduction in cluster n consonants, deletions in final consonants, omissions in unstressed syllables, especially in multisyllable prefixes, and substitutions in consonants. Coppens-Hofman and colleagues say the difficulty in speaking is caused by gangs in speech motor planning or planning in the muscles to speak (3).

Speech therapy interventions are performed to improve a person's language and speech. The results of Alighieri et al's research, stated that articulatory placement errors, including how to produce sounds, require speech therapy intervention (5). As mentioned, people with intellectual disabilities have speech problems due to speech motor planning, which can be trained by speech therapy toreduce the severity of speech (2).

In this study, Therapist wanted to find out how effective speech therapy interventions are in children with intellectual disabilities, using the phonetic placement method, and target /m/ at the initial position of the word. Phonetic placement is known as the sensory-perceptual or motoric-based approach (6). This method aims to train articulation by instructing children in articulator placement to produce correct speech sounds (7). The target sound in this study was /m/ at the initial position of the word level with the vowel /a/. The choice of phonetic placement method in this study is because in several journal articles, phonetic placement is effective in increasing sound production ability in the bilabial sound collection (8) (9).

METHOD

This study used a quantitative approach with Single Subject Research (SSR). Single Subject Research (SSR) is an experimental study that aims to see and evaluate a certain intervention of the behavior of a single subject with repeated assessments for a certain time. Research with SSR aims to see the effect of an intervention given repeatedly to ensure behavior change of the study subjects (10). The sole subject in this study was a 7-year-old girl client in Kebon jeruk, West Jakarta. The experimental design used in this study was one group pretest-posttest design, which used one subject (single case) and measured ability before treatment or therapy (pretest) and after therapeutic treatment (posttest). The designcan be seen as follows:

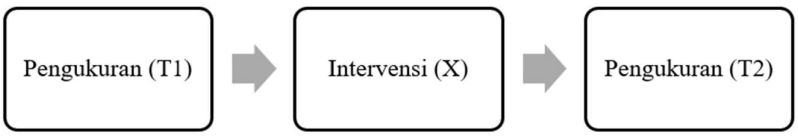

Figure 1. One Group Pretest-Posttest Design

Information:

T1 : Experimental Group before being given articulation training treatment (pretest)

X : Application of articulation exercises

T2 : Experimental group after being given articulation exercise treatment (posttest)

Research instruments in the form of tools selected and used by Therapist in collecting data so that research becomes systematic. Data collection techniques used in this study were interviews with clients' parents, observationof clients' speech, motor, and sensory skills, and various tests. Data collection techniques can be seen in Table 1 below:

Table 1. Data Collection Instruments

No	Data Collection Techniques	Instruments	Respond	Indicator
1	Interview	WaInterview Form and Inform Consent	Client's parents	Obtain data on: identity, prenatal, natal, postnatal data, communication skills, speech language development, motor, behavior, social relationships, and family medical history.
2	Observation	Observation Form	Client	Obtain data on: general condition, motor skills, sensory abilities, language skills, speech skills, voice abilities, rhythm abilities fluency, ability of speech organs, respiratory ability, ability to swallow, behavior, balance and impression of intelligence.
3	Auditory Language Examination Test (PBSA)	PBSA Test Form	Client	Obtain data on: word-level language comprehension skills through auditory stimuli
4	Articulation Tests	Articulation Test Form	Client	Obtain data on: the client's ability to articulate at the word level, and find out if there are articulation errors, namely substitution, omission, distortion, and addition (SODA)
5	Speech Tool Inspection Test (PAW)	PAW Test Form	Client	Obtain data on: knowing the structure of the serta function of the speech organ, and knowing whether or not there are problems in the client's speech organs both anatomically and functionally.
6	Document Study	Results of Doctor's Examination	Doctor	Obtain data on: supporting data needed by Therapist in strengthening the data obtained
7	Initial Test and Final Test	Initial Test Form and Final Test	Client	Knowing the success of therapy achieved

Data that has been collected through these instruments, then analyzed to conclude the diagnosis of the client's speech language disorder. The results of the diagnosis will then conclude the appropriate handling of the intervention, according to the modality or ability of the client. From the results of the analysis conducted by the researcher, the client intervened toreduce the articulation error /m/ at the initial position of the word using the phonetic placement method. Therapy will be carried out for 10 sessions with a duration of 45 minutes and 1 session is carried out to evaluate the client's ability after therapy.

Case Description

Based on data obtained from interviews with clients' parents, clients are 7-year-old girls. The client was the second of three children. The client was born at 24 weeks. When pregnant with the client, ibu client does not realize that the womb has two fetuses. When the gestational age reaches 20 weeks, the client's mother is unable to stand. The client was born at 6 months gestational age by sectio caesarean. The client's birth weight is 1800 grams and height is 43 cm. For 5 days the client gets treatment in the incubator.

In addition, during one day the client has also experienced a condition where bilirubin levels increase, and cause the client's skin to be kuning. The development of speech language is explained from interviews with the client's parents as follows: reflex vocalization that occurs until the client's age reaches 8 months, babbling at the age of 13 months, lalling at the age of 16 months, ekolalia stage at the age of 18 bulan, and reaches the stage of true speech at the age of 20 months. The client's parents also explained that the client still has many articulation errors at the age of 7 years.

Intervention

1. Therapeutic Goals

The intervention given to the client aims to enable the client to improve the articulation ability of /m/ at the initial position of the word by imitation, without any articulation errors such as substitution, omission, distortion, and addition, as many as five items, namely cook, rose, enter, eat, and tiger.

2. Therapy Materials

Therapy is selected based on the client's ability or modality. The results of the assessment stated that the client had a modality to purse his lips. In the tests that have been performed, the client experiences articulation problems in the consonant /m/. From the analysis dida pat, the researcher's target is to improve the client's articulation ability in producing /m/ at the initial position of the word level with the vowel /a/, as many as 5 items, namely eating, entering, roses, and tigers.

3. Therapy Methods

Phonetic placement is a method that improvesthe placement of speech devices, modifies the airway, and speech when speaking. The main purpose of this method is to provide as many instructions as possible for the placement of speech instruments and how to place the airflow emitted when phoning a sound (7). In addition, Phonetic placement is useful for clients who have difficulty in placing articulators in a variety of different speech sounds (8)

4. Therapeutic Steps

This therapeutic step comes from Hegde. This therapeutic step is usedfor problems with the placement of articulators in the voiced nasal bilabial consonant /m/ (11). Here are the therapeutic steps:

a. Exemplify sound production several times; direct attention to the position of articulation; emphasize nasal resonance; Ask the client to feel the nasal vibrations.
b. Instruct the child to continue buzzing (hum), and while opening his mouth, this will produce /ma/ di where the client can form /m/.
c. Alternatively, teach the child to take a deep breath through the nose, shut his mouth,and let air escape through the nose while saying "ah" this may produce /m/.
d. The /m/ form of this manipulation.

Judging Criteria

1. Pre test and post test will be done before and after the intervention or therapy is carried out. The client's success rate will be measured by comparing the client's abilities before and after therapy.

The improvement of client ability is measured based on the formula described by Moh. Nazir, asfollows:

Table 2. Moh.Nazir Theory Formula

Pre Test	Treatment	Pos Test
T0	X	T1

Information:

T0 : initial test

X : Implementation of therapy

T1 : final test

2. At each point in the pre-test and post-test will be assessed with certain criteria. These criteria are:
   a. Point 0: the client is unable to pronounce sounds without substitution, omission, distortion and addition (SODA)
   b. Point 1: the client is able to produce the target sound without SODA
   c. The success rate is determined by comparing the values of the pre test and post test. Therapist will declare success in cases with the following criteria: a) successful (points 7 – 10), b) quite successful (points 3 – 6), and c) unsuccessful (poin 0 – 2).

RESULT AND DISCUSSION

The results of interviews with the client's parents obtained information that the client was born prematurely through cesarean section at 24 weeks of gestation. The client's body weight is 1800 grams, with a length of 43 cm. The client undergoes intensive treatment in the incubator for five days. Clients have also experienced conditions in which bilirubin levels in the blood exceed normal limits for a day. Preterm birth and very low birth weight can be the cause of children born with intellectual disabilities. In a journal written by Iqbal and friends, explain that babies born very low can cause intellectual disability in infants (12).

In addition, a study conducted in Norway, children born at less than 32 weeks gestational age, had a 6.9 times higher risk of having intellectual disability compared to babies born normally. In the same study, Therapist also stated that babies born prematurely weighing between 1500 grams and 2400 grams, had a 2.3 times higher risk of having intellectual disabilities compared to children born with normal weight (13).

The client was born at 24 weeks, where the gestational age in the third trimester is a crucial time in the baby's brain development. Karyadi said that, the second and third trimesters of pregnancy are closely related to the development of intelligence, because at 15 to 20 weeks gestation the brain experiences rapid growth. The brain experiences rapid growth (brain growth support) for the first time during the third trimester of pregnancy (14). Where in this trimester neuron cells in the cerebrum divide and divide rapidly.

Fetal development that stops at the age of 24 weeks can be a major factor in the client's brain development being inhibited, and cause the client to have intellectual disability. The client also experienced jaundice also called jaundice, a condition in which bilirubin increases the baby's blood circulation. Jaundice can cause damage to the brain, and can be a trigger for deafness, cerebral palsy, and intellectual disability (15). According to RSUP dr. Soeradji Tirtonegoro (RSST), the presence of hyperbilirubin is a sign of deafness, speech disorders or intellectual disabilities in infants (16).

Based on data obtained from document studies, clients have taken IQ tests at Pelni Hospital West Jakarta on July 23, 2018, the client obtained a total IQ of an estimated ≤ of 65 on the Wechsler Scale, included in the classification of intellectual disabilitiesktual (17). The classification of IQ according to the Wechsler Scale can be seen as follows:

Table 3. IQ Classification According to The Wechsler Scale

Classification	**IQ**
Very Superior	> 130
Superior	120 - 129
High Average	110 - 119
Average	90 - 109

Low Average	80 - 89
Borderline	70 - 79
Intellectual Disability	< 69

Language Skills

The results of the Auditory Language Comprehension (PBSA) ability examination obtained information that the client did not understand adjectives, clues, pronouns of people, time descriptions, morphology, grammar and syntax so that the client was difficult to answer PBSA correctly. In the PBSA assessment standard, the ability to understand the language of klien is equivalent to the age of <3 years where the age is 7 years. According to Paul, children with intellectual disabilities have difficulty discriminating against tasks because they pay less attention to the dimensions of stimuli than theyneed to distinguish them (18). According to Kenneth, ages 6 -7 years, children can understand the concept of time and can use morphology as an appropriate marker (19).

Articulation Ability

Based on the results of interviews with the client's mother, the client has not been able to produce the sounds /e/, /s/, /t/, /r/, /n/, and /d/. Then, based on the results of an articulation test conducted on 69 word items, the client was able to imitate normal word-level speech on 27 of the 69 items tested. However, the client experienced 29 omission articulation errors, namely in the consonant sounds /p-/, /b-/, /m-/, /-m-/, /-m-, /-m/, /-t-/,/-t/,/-d/,/n-/,/-n/,/-l-/,/-l/,/g-/,/-ŋ-/,/-ŋ/,/tʃ-/,/dʒ-/, /-dʒ/, /v-/, /s-/, /-s-/,/-h-/,/-r-/,/-r/,/-w/,/j-/,/-j/, /br-/ and /dw-/. In addition, the client also has articulation errors in the form of substitutions of 12 phonemes, namely in the consonant sounds /-p/, /-f/, /z-/, /r-/, /r-/, /fr/, /gr/, /kl/, /sk/, /sp/, /st/, and /sw/.

The choice of /m/ in this study isbecause /m/ is one of the first sounds that can be produced by children, namely at the age of 2-3 years (19). While the vowel /a/ is a vowel that is low, back, and not round. The position of the tongue when producing the /a/ sanga t sound is low and the lower jaw is very open. The speaker's lips are open and not round (7). Therapist have carried out therapy where

Therapist intervene in speech therapy as many as 10 therapy sessions. The responses from the results of therapy in klien can be seen in the following table 4:

Table 4. Implementation of Therapy

Meeting	Stimulus	Response
1 and 2	Opener: 1). Therapist asks the client to sit opposite each other 2). Therapist asks the client to pray first 3). Therapist break the ice to provide a sense of comfort, such as having a conversation first or Therapist invite to play Core activities 1). Therapist describes the activities to be carried out 2). The researcher provides a picture 3). Therapist asked about the card 'what is this going on?' 4). Therapist gives an example of how to produce /m/ 5). Therapist asks the client to feel nasal vibrations. 6). Therapist asks the client to buzz (hum), if the client is unable to buzz then Therapist tries to close the client's mouth. 7). Ask the client to open his mouth and teach /ma/ 8). Therapist asks the client to teach the word /cook/ Cover: 1). After finishing today's therapy, Therapist ask the client to pray	Opener: 1). The client is cooperative, can be conditioned and sit opposite the researcher 2). Clients can follow asked to pray 3). Clients become happier and more relaxed when Therapist play Core activities : 1). The client is willing to listen when Therapist explains 2). The client notices some of the images Therapist provides 3). The client did not answer the researcher's questions 4). The client pays attention and is willing to follow the researcher's instructions when producing /m/ 5). The client wants to feel the nasal vibration when Therapist points the client's hand to the client's or researcher's nose 6). The client follows the researcher's instructions to buzz, with the researcher's hand holding the client's lips 7). The client buzzes and Therapist open the client's mouth, then the client says /ma/ 8). The client has not been able to produce /ma/ when Therapist asks to teach the word /cook/ Cover: 1). The client is willing to follow when Therapist asks the client to pray
3 and 4	Opener: 1). Therapist asks the client to sit opposite each other 2). Therapist asks the client to pray first 3). Therapist break the ice to provide a sense of comfort, such as having a conversation first or Therapist invite to play	Opener: 1). The client is cooperative, conditionable and sits opposite the researcher 2). Clients can follow asked to pray 3). Clients become happier and more relaxed when Therapist play Core activities :

	Core Points: 1). Therapist describes the activities to be carried out 2). The researcher provides a picture 3). Therapist asked about the card 'what is this going on?' 4). Therapist gives an example of how to produce /m/ 5). Therapist asks the client to feel the nasal vibration. 6). Therapist asks the client to buzz (hum), if the client is unable to buzz then Therapist tries to close the client's mouth. 7). Ask the client to open his mouth and teach /ma/ 8). Therapist asks the client to teach the word /in/ Cover: 1). After finishing today's therapy, Therapist ask the client to pray	1). The client is willing to listen when Therapist explains 2). The client notices some of the images Therapist provides 3). The client did not answer the researcher's questions 4). The client needs toobey and is willing to follow the researcher's instructions when producing /m/ 5). The client wants to feel the nasal vibration when Therapist points the client's hand to the client's or researcher's nose 6). The client follows the researcher's instructions to buzz, with the researcher's handon the client's lips 7). The client buzzes and Therapist open the client's mouth, then the client says /ma/ 8). The client has not been able to produce /ma/ when Therapist asks to teach the word /in/ Cover: 1). The client wants to follow when Therapist asks the client to pray
5 and 6	Opener: 1). Therapist asks the client to sit opposite each other 2). Therapist asks the client to pray first 3). Therapist break the ice to provide a sense of comfort, such as having a conversation first or Therapist invite to play Core activities : 1). Therapist describes the activities to be carried out 2). The researcher provides a picture 3). Therapist asked about the card 'what is this picture?' 4). Therapist gives an example of how to produce /m/ 5). Peneliti asks the client to feel the nasal vibration. 6). Therapist asks the client to buzz (hum), if the client is unable to buzz then Therapist tries to close the client's mouth.	Opener: 1). The client is cooperative, can be conditioned and sit opposite the researcher 2). Clients can follow asked to pray 3). Clients become happier and more relaxed when Therapist play Core activities : 1). The client is willing to listen when Therapist explains 2). The client pays attention to some of the images that Therapist provides 3). The client did not answer the researcher's questions 4). The client pays attention and is willing to follow the researcher's instructions when producing /m/ 5). The client wants to feel the nasal vibration when Therapist points the client's hand to the client's or researcher's nose 6). The client follows the researcher's instructions to buzz, with the researcher's hand holding the client's lips

	7). Ask the client to open his mouth and teach /ma/ 8). Therapist asks the client to imitate the word /rose/ 9). Therapist asks the client to teach the word /rose/ Cover: 1). After finishing today's therapy, Therapist ask the client to pray	7). The client buzzes and Therapist open the client's mouth, then the client says /ma/ 8). The client has not been able to produce /ma/ word levels when Therapist asks to imitate the word /rose/ 9). The client has not been able to produce /ma/ when Therapist asks to teach the word /rose/ Cover: 1). The client is willing to follow when Therapist asks the client to pray
7 and 8	Opener: 1). Therapist asks the client to sit opposite each other 2). Therapist asks the client to pray first 3). Therapist break the ice to provide a sense of comfort, such as having a conversation first or Therapist invite to play Core activities : 1). Researcheri explain the activities to be carried out 2). The researcher provides a picture 3). Therapist asked about the card 'what is this going on?' 4). Therapist gives an example of how to produce /m/ 5). Therapist asks the client to feel nasal vibrations. 6). Therapist asks the client to buzz (hum), if the client is unable to buzz then Therapist tries to close the client's mouth. 7). Ask the client to open his mouth and teach /ma/ 8). Therapist asked the client to imitate the word /eat/ 9). Therapist asks the client to teach the word /eat/ Cover: 1). After finishing today's therapy, Therapist ask the client to pray	Opener: 1). The client is cooperative, can be conditioned and sit opposite the researcher 2). Clients can follow asked to pray 3). Clients become happier and more relaxed when Therapist play Core activities : 1). The client is willing to listen when Therapist explains 2). The client notices some of the images Therapist provides 3). The client did not answer the researcher's questions 4). The client pays attention and is willing to follow the researcher's instructions when producing /m/ 5). The client wants to feel the nasal vibration when Therapist points the client's hand to the client's or researcher's nose 6). The client follows the researcher's instructionsto buzz, with the researcher's hand holding the client's lips 7). The client buzzes and Therapist open the client's mouth, then the client says /ma/ 8). The client has not been able to imitate the speech given by the researcher, but when Therapist provides correction the client canproduce a target sound /ma/ in the word /eat/ 9). The client has not been able to produce the target sound /ma/ when Therapist asks to teach the word /eat/, but if corrected the client is able to produce the target sound /ma/ in the word /eat/

		Cover: 1). Klien will follow when Therapist asks the client to pray
9 and 10	Opener: 1). Therapist asks the client to sit opposite each other 2). Therapist asks the client to pray first 3). Therapist break the ice to provide a sense of comfort, such as having a conversation first or Therapist invite to play Core activities 1). Therapist describes the activities to be carried out 2). The researcher provides a picture 3). Therapist asked about the card 'what animal is this?' 4). Therapist give examples of how to produce /m/ 5). Therapist asks the client to feel nasal vibrations. 6). Therapist asks the client to buzz (hum), if the client is unable to buzz then Therapist tries to close the client's mouth. 7). Ask klien to open your mouth and teach /ma/ 8). Therapist asks the client to imitate the word /tiger/ 9). Therapist asks the client to teach the word /tiger/ Cover: 1). After finishing today's therapy, Therapist ask the client to pray	Opener: 1). The client is cooperative, can be conditioned and sit opposite the researcher 2). Clients can follow asked to pray 3). Clients become happier and more relaxed when Therapist invite them to play Core activities : 1). The client is willing to listen when Therapist explains 2). The client notices some of the images Therapist provides 3). The client did not answer the researcher's questions 4). The client pays attention and is willing to follow the researcher's instructions when producing /m/ 5). The client wants to feel the nasal vibration when Therapist points the client's hand to the client's or researcher's nose 6). The client follows the researcher's instructions to buzz, with the researcher's hand holding the client's lips 7). The client buzzes and Therapist open the client's mouth, then the client says /ma/ 8). The client cannot imitate the speech that Therapist gives, but if corrected the client is able to produce the target sound /ma/ in the word /tiger/ 9). The client has not been able to produce /ma/ when Therapist asks to teach the word /tiger/, but if the correction researcher isable to produce the target sound /ma/ in the word /tiger/ Cover: 1). The client is willing to follow when Therapist asks the client to pray
11	Evaluation	Initial Test and Final Test

The client followed the therapy for 10 sessions, but the client's articulation ability in producing /m/ at the initial position of the word has not improved. All five items are imitated by the client with the /m/ omission at the initial position of the word. Comparison of the results of the initial testevalua and the client's final test can be seen in table 5.

Table 5. Evaluation Results

No	Initial Test					Final Test			
	Stimulus	Chance 1		Chance 2		Chance 1		Chance 2	
		Response	Shoes	Response	Shoes	Response	Shoes	Response	Shoes
1	Cook	See also	0	See also	0	See also	0	See also	0
2	Enter	Atu	0	Atu	0	Grandpa	0	Atu	0
3	Rose	Awa	0	Awa	0	Awa	0	Awa	0
4	Eat	See also	0	Aka	0	See also	0	See also	0
5	Tiger	Aca	0	Aca	0	Aca	0	Aca	0
Total Score									0

The client has an error articulating the /m/ emission at the initial position of the word at the beginning of the test or the final test that has been performed. According to Paul and Courtenay, people with intellectual disabilities have more frequent articulation errors than normal children and are inconsistent, and the most common articulation error is the removal of consonants (20). As research has been conducted by Yulidar and Agustina, states that articulation errors that often occur in children with intellectual disabilities are emissions, followed by substitutions, and distortions (21).

The phonetic placement method itself has been reported several times to be successful in overcoming articulation errors in bilital consonants such as /m/. Research conducted on cleft lip children whohave been operated on using the phonetic placement method was successfully carried out with the POA (place of articulation) group or the same articulator placement, namely in the bilabial consonant sound group. In this study, the duration of therapy was 16 sessions with a frequency of therapy 2 sessions a week for 2 months with therapy time per session of 45 minutes.

The percentage of clarity of client articulation increased from 5% to 25% after the phonetic placement therapy (8). In addition, there is a study conducted by Hayati and Iswari, using the same

method on the bilabial consonant sound group for clients of deaf children, with the aim of improving clarity in bilabial consonants. The percentage showed that the client improved to articulation ability in bilabial consonants by the percentage from 0% to 66.67% in 11 sessions. Both studies show that the phonetic placement method can be effective and successful at meetings of more than 10 sessions. From this explanation, the frequency of therapy affects the success of using the phonetic placement method on the target of bilabial consonant sounds (9).

Failure of therapeutic interventions may also be due to the client's ability to absorb information. People withintellectual intellectual disabilities are most likely to have problems with short term memory (STM) skills. Children who have STM disorders in producing long words (22). Other sources say, children with poor STM, easier to remember words that are short like (pet, glass) than long words like (Friday, harpoon). In addition, children who have problems with STM have limitations in retaining information, approximately 5 to 8 items, but can also vary more depending on thecharacteristics of the targeted item (23). While in this study, the stimulus provided has a KVKVK pattern that is difficult for clients to follow.

CONCLUSION

This study used the phonetic placement method on a 7-year-old girl client who had an intellectual disability with a target /m/ at the initial position of the word declared unsuccessful. The need for repetition (drill) and reinforcement is needed in children with intellectual disabilities.

SUGGESTION

The therapy material shouldstart from a word with one syllable to make it easier for the client to produce the targeted sound. The need for repetition and reinforcement in the implementation of therapy. The increase in the frequency of therapy given affects the successn in therapy. The ice used by Therapist should use a medium that the client can see so that the client can know the image of the

word. Further research is needed to determine the effectiveness of the Phonetic Placement method on intellectual disabilities to increase references to research in the field of Speech Therapy.

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BIBLIOGRAPHY

1. Gillam RB, Marquardt TP. Communication Sciences and Disorders: From Science to Clinical Practice: From Science to Clinical Practice [Internet]. 2nd ed. Gillam RB, Marquardt TP, Martin FN, editor. London: Jones & Bartlett Publishers; 2010. 420 hlm.
2. Terband H, Coppens-Hofman MC, Reffeltrath M, Maassen BAM. Effectiveness of speech therapy in adults with intellectual disabilities. Journal of Applied Research in Intellectual Disabilities. 2017; 31(2):236–48.
3. Coppens-Hofman MC, Terband H, Snik AFM, Maassen BAM. Speech Characteristics and Intelligibility in Adults with Mild and Moderate Intellectual Disabilities. Folia Phoniatrica et Logopaedica. 2016; 68(4):175–82.
4. Boardman L, Bernal J, Hollins S. Communicating with people with intellectual disabilities: A guide for general psychiatrists. Advances in Psychiatric Treatment. 2014; 20(1):27–36.
5. Alighieri C, Bettens K, Bruneel L, Sseremba D, Musasizi D, Ojok I, dkk. Comparison of motor-phonetic versus phonetic-phonological speech therapy approaches in patients with a cleft (lip and) palate: a study in Uganda. Int J Pediatr Otorhinolaryngol [Internet]. 2020;131:109849.
6. Roth FP, Worthington CK. Treatment Resource Manual for Speech-Language Pathology Sixth Edition [Internet]. Sixth Edit. San Diego: Plural Publishing; 2021. 1–566 hlm.
7. Secord WA, Boyce SE, Fox RA, Donohue JS, Shine RE. Eliciting Sounds Techniques and Strategies. 2007. 1–195 hlm.

8. Korah BSc, MSc SLP RM. Phonetic Placement Approach for Individuals with Repaired Cleft Lip and Palate: A Case Study. Language in India [Internet]. 2018; 18(6):192.

9. Hayati D, Iswari M. The Effectiveness of Phonetic Placement Method in Improving Bilabial Letter Articulation Ability for Deaf Children. Journal of Basic Education Studies. 2021; 4(1):527–36.

10. Rully Charitas Indra Prahmana. Single Subject Research (Theory and Implementation: An Introduction) [Internet]. Yogyakarta: UAD Press; 2021. 0–50 pp.

11. Mahabalagiri N. Hegde. Hegde's PocketGuide to Treatment in Speech-Language Pathology. 2nd ed. San Diego: Singular; 2001. 1–576 hlm.

12. Iqbal1 M, Baig M, Bhinder M, Zahoor M. Factors Causing Mental Retardation. Asian Journal of Natural & Applied Sciences. 2016; 5(3):28–37.

13. Behrman RE, Butler AS. Preterm birth: Causes, Consequences, and prevention. Preterm Birth: Causes, Consequences, and Prevention. 2007. 1–772 hlm.

14. Darwanty J, Antini A. Contribution of Folic Acid andHaemoglobin Levels in Pregnant Women to Fetal Brain Growth in Karawang Regency in 2011. Journal of Reproductive Health [Internet]. 2012; 3(2):82–90.

15. Adebami OJ. Factors associated with the incidence of acute bilirubin encephalopathy in Nigerian population. Journal of Pediatric Neurology. 2011; 9(3):347–53.

16. Health Promotion and Marketing Installation RSUP dr. Soeradi. How is Jaundice Treatment in Babies? [Internet]. 2023.

17. Roopesh BN. Review Article: Binet Kamat Test of Intelligence: Administration, Scoring and Interpretation- An In - Depth Appraisal. Indian Journal of Mental Health [Internet]. 2020; 7(3):180.

18. Paul R. Language Disorders from Infancy Through Adolescence: Assessement & Intervention. Falk K, editor. Language Disorders from Infancy Through Adolescence: Assessement & Intervention. St. Louis: Elsevier - Health Sciences Division; 2007. 1–800 hlm.

19. Shipley KG, McAfee JG. Assessment Pathology in Speech-Language Pathology, A Resource Manual Sixth Edition. 2021. 1–713 hlm.

20. Paul R, Norbury C, Gosse C. Language Disorders from Infancy through Adolescence: Listening, Speaking, Reading, Writing, and Communicating. Language Disorders from Infancy through Adolescence: Listening, Speaking, Reading, Writing, and Communicating. 2017; 1–812.

21. Yulidar, Agustina. The Most Types of Articulation Disorders Occurring in Mental Retarded Dyslogia Children. Jurnal Terapi Wicara. 2023; 1(1).

22. Jarrold C, Brock J. Short-term Memory and Working Memory in Mental Retardation. The Oxford Handbook of Intellectual Disability and Development. 2012; (January 2019):1–30.

23. Vicari S, Costanzo F, Menghini D. Memory and Learning in Intellectual Disability [Internet]. Vol. 50, International Review of Research in Developmental Disabilities. Elsevier Ltd; 2016. 119–148 hlm.