

Competence of Autistic Children in the Able to Educate Group in Pronunciation of Basic Vocabulary

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Abstract

In interpersonal communication, language skills are important to improve. However, this is difficult to apply to children with special needs, such as autism. Therefore, the purpose of the study is that the author wants to know the extent to which autistic students are able to articulate phonetic sounds and basic words correctly. In addition, this study also aims to determine the ability of sufferers to understand a concept instructed by the teacher. For this research method, the approach used is a qualitative study. Data collection was carried out by observation, interviews, and documentation of autistic students' speech accompanied by their teachers. Furthermore, the collected data will be analyzed. Data analysis was carried out using a qualitative descriptive method with a psycholinguistic analysis knife of the theory of child language acquisition, production, and use. The results of the study showed that autistic students with the category of being able to learn have better language skills. They can pronounce similar bilabial sounds, such as /p/ and /b/, count, and recognize concepts with instructions although they are still imperfect. Of course, this is caused by the child's lack of focus because there are other things he wants.

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INTRODUCTION

Language disorders experienced by a person will cause communication to be hampered. People who experience language failure are identical to those with neurological disorders in the brain. This can occur while they are in the womb or during their development. One example of an identical language disorder is experienced by people with autism. Approximately 50 percent of individuals with autism fail to develop verbal communication. Even among those who are able to speak, there are significant communication disorders that are suffered throughout their lives (Cummings, 2013).

Autism is a developmental disorder that affects communication, social interaction, and behavior. People with autism are also referred to as having autism spectrum disorder (ASD). ASD is not just a social communication disorder, but a neurodevelopmental condition that affects higher-level cognitive functions (Mostek, 2022). ASD has different symptoms and varying degrees of severity. This can be seen in the way they speak and communicate with others. Behavioral characteristics of ASD include impaired social interaction, such as the inability to develop communicative relationships with peers. Additionally, there are significant speech impairments in the ability to initiate or maintain conversations with others. Students who experience such difficulties should receive special support and attention from their parents (Pratikno, 2021).

Language disorders that occur in people with autism are certainly influenced by their brain or neurological abilities. The interconnection between these two fields is called neurolinguistics. Neurolinguistics is the applied study of language concepts and theories in neuroscience, particularly in cases of language disorders (Aribowo, 1970). However, knowledge of how a person acquires and uses language will be further explored through psycholinguistic studies. Psycholinguistics is the study of language in relation to psychology. This means that language learning is not limited to the study of

linguistics, but must also include the study of mental processes, namely psychology (Ismail, 2013). Therefore, psycholinguistic studies are ideal for understanding the process of language acquisition and production in children with special needs.

The language barriers experienced by autistic children are complex because they include phonology, morphology and syntax, so they can be linked to cognitive and neurological processes (Alasmari et al., 2024). Based on this, the language inherent in autistic children is characterized by lower expressive and receptive abilities compared to normal children, not only due to cognitive factors but also to biological and social factors (Muès et al., 2024). (Finnegan et al., 2021) research shows significant differences between individuals with autism and their typically developing peers in pronoun use overall, as well as in the use of ambiguous, clitic, and reflexive pronouns, but not in the use of personal and possessive pronouns.

Thus, almost all autistic individuals show differences in contextual (pragmatic) language use, for example difficulty understanding irony, metaphors, idioms, and pronoun use (Schaeffer et al., 2023). Other studies show that the joint attention scores of autistic children are lower than those of non-autistic children, but higher than previous studies because the measurement context is more natural (Dumont et al., 2025). However, (Wolfer et al., 2024) research shows that autistic children have the potential for metalinguistic awareness, which can emerge when tasks are designed with low linguistic load and non-verbal responses. This opens up opportunities for developing more inclusive evaluation and intervention methods.

The etiology of ASD is still largely unknown. The causes may vary in each case. Several factors are believed to play a role in the development of autism spectrum disorders. Typically, genetic and environmental factors play a significant role in the development of autism (Gyawali & Patra, 2019). In addition, ASD is more common in boys than girls. Children with autism usually have good physical development and motor skills. Repetitive motor behaviors can

be observed when they spin their hands or fingers; make complex movements with their entire body, such as staring; and sometimes they constantly grind their upper and lower teeth together.

By performing these jaw movements, the patient's language skills will also be impaired in producing phonetic sounds. Thus, language disorders in people with autism vary greatly and can affect both verbal and nonverbal communication. Some of the more common language disorders experienced by people with ASD include speech delay, difficulty interacting socially, repetition, intonation instability, limited vocabulary, unstructured sentences, limited interest in topics of conversation, and difficulty understanding subject concepts. Background Language problems can have a negative impact on a child's behavior and adversely affect the development of relationships with peers (Helland & Helland, 2017).

Of all the common language disorders experienced by people with ASD, not all of them are present simultaneously. It is possible for a person with ASD to have only some of the language disorders mentioned above. This certainly depends on the severity of the disorder. Therefore, it is necessary to classify ASD patients as mild, moderate, or severe. The more severe the autism disorder suffered by the patient, the more complex the language disorder will be. Research related to language disorders in autistic patients has been studied by Khaeriyah (2023). The results of her research show that the phonological learning of 7-year-old autistic children is relatively slow, because the children are not yet able to produce language sounds clearly, especially phonemes at the beginning of words or even at the end of words (Khaeriyah & Rosidin, 2022).

Children with mild ASD can be guided in naming objects, although they may need several repetitions of instructions from their teachers. This was observed by the author during observations at the Cipaganti Special Needs School in Bandung. Students with autism belong to a group that is capable of being educated. This means that their IQs vary between 50 and 70. In addition, they have the ability to develop in

academic studies; adapt, socialize, and cooperate; adjust to a wider environment; be independent in the community; and be capable of performing semi-skilled and light work (Widiastuti & Winaya, 2019). Thus, their linguistic intuition is quite good, which influences their cognition (Pratikno, 2024).

The author has observed and assessed the language skills of autistic students with learning disabilities. These students are able to say the numbers 1-10 correctly and clearly, but still slowly. Even then, they must be instructed by their teacher because they feel comfortable and close to him. However, when asked to say other things, they are reluctant to do so because they lack concentration. For example, the patient was asked to recite the alphabet one letter at a time, but he refused and only uttered the first letter, which was Aaa... (rather long). However, it is unclear whether he truly understands the concept of the letter A or whether his utterance is a form of refusal. Thus, (Leslie & Frith, 1988) proposed that autistic children are specifically impaired in their meta-representational capacities, thereby hindering their construction of 'theory of mind'.

Based on this, the purpose of this study is to determine the extent to which students with mild autism are able to correctly articulate phonetic sounds and basic words. In addition, this study also aims to determine the ability of students with autism to understand concepts taught by teachers. This research was conducted by testing the language skills of students with ASD through a series of prepared vocabulary pronunciation instructions. The results will be tested using psycholinguistic theory.

METHODOLOGY

This study uses a qualitative descriptive approach to investigate and understand how many individuals or groups of people deal with social or humanitarian issues (Creswell, 2016). The approach used in this study was a case study of the respondent. The respondent was a boy with the initials MA who had a neurological disorder. The respondent's clinical history was autism with the category of educable. The respondent was

born in Bandung on July 24, 2016, and is now 8 years and 10 months old.

Data collection for this study was conducted through observation, interviews, and documentation of autistic students accompanied by their teachers. The observation was conducted on May 27-30, 2025, at SLB-C YPLB Cipaganti in Bandung. Meanwhile, the interviews took the form of instructional questions, such as verbs, nouns, numbers, pronouns, demonstrative pronouns, and interrogative pronouns. During the interviews, the author documented the students' responses by recording their utterances.

Next, the author listened to and categorized the recordings. The data collected consisted of speech sounds transcribed using Indonesian phonetic transcription. The collected data will be analyzed. Data analysis will be conducted using qualitative descriptive methods with psycholinguistic analysis based on theories of child language acquisition, production, and use.

RESULTS AND DISCUSSION

The findings based on interviews with school teachers revealed that an 8-year-old autistic student with the initials MA is classified as mildly hyperactive. He is a student who can be controlled during class activities and is even fairly easy to instruct. MA is currently in the first grade of SDLB. Based on interviews with his teacher, he said that MA is already able to recognize and pronounce letters. This is different from other students who are not yet fluent in pronouncing 4 letters, let alone syllables in a word. MA is not yet able to speak as well as other children his age. However, his vocabulary is quite extensive.

Not only that, MA students also have excellent motor skills. They are able to move all parts of their bodies normally and their strength is considered strong for their age. The proof is that when throwing a ball, they are able to lift and swing the ball until it reaches their friends. However, his throws are not accurate enough to reach the intended target, so his throwing movements need to be guided by his teacher to maintain focus. The following is documentation

of MA playing catch with his friends who have different neurological disorders. Despite this, they all appear to be close and enjoy the game.



Figure 1. Throwing and Catching Ball Sports.

From a language cognition perspective, MA already understands who he is. This can be seen when other people call his name; he immediately looks up, and when the teacher instructs him to come here, MA immediately approaches her. This means that the student already understands the concept of objects and is willing to respond to them. Sensory processing challenges have been known since the first clinical description of autism (Baum et al., 2015). However, once again he was not paying attention, so the teacher had to call him several times before he approached. The picture below shows the student responding to his teacher's call. After that, the author began conducting instructional interviews with the students and their teachers using several prepared vocabulary words.



Figure 2. Responding to Calls and Instructions.

When interested in ball games, MA immediately joins in without further ado, giving an introduction or telling his friends in advance that he will be playing. So, communication is not very important to him, but the most important thing is that he wants to participate. He does not take the initiative to greet others or say hello, unless instructed to do so. Additionally, MA's curiosity about things is very high, but he tries to do things on his own and does not ask for help from others.

In other words, MA has limitations in social communication. Social communication in autism is influenced not only by structural language but also by prosody and executive function so further research is needed to understand the complex interactions between vocabulary, prosody, and cognitive flexibility (Costescu et al., 2022). In addition, exploratory analysis showed a negative relationship between

alpha power and core symptoms of autism which include social communication difficulties and repetitive behavior (Cohenour et al., 2024).

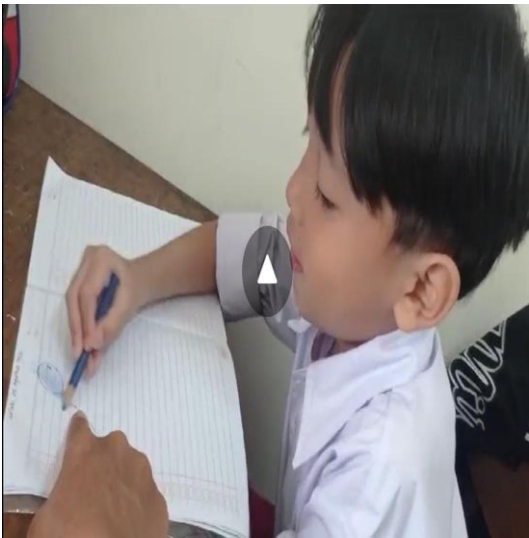


Figure 3. Vocabulary Pronunciation Instructions.

Despite social limitations, MA students are better in terms of cognition and verbal skills. The verbal pathway appears to be the primary mediator, so interventions targeting MA are likely to have a positive impact on language development and social adaptation (Harrison et al., 2016). This can be seen from the way they express themselves, even though they still need to be instructed repeatedly. The following are the results of the identification based on the teaching approach that has been transcribed into a table.

Table Language Pronunciation Competence

No.	Word Form	Pronunciation	Pronunciation Competence	Success
1.	<i>daun</i>	[da.un]	clear and correct	√
2.	<i>biru</i>	[bi.ru]	clear and correct	√
3.	<i>rumah</i>	[ru.mah]	clear and correct	√
4.	<i>lapar</i>	[la.par]	clear and correct	√
5.	<i>marah</i>	[ma.rah]	clear and correct	√
6.	<i>pola</i>	[po?a]	there is a faint sound in the middle /1/	v
7.	<i>bola</i>	[bo?a]	there is a faint sound in the middle /1/	v
8.	<i>foto</i>	[fo.to]	clear and correct	√

9.	<i>kanvas</i>	[kan.vas]	clear and correct	√
10.	<i>zebra</i>	[ze.b-a]	there is sound loss in the middle /r/	v
11.	<i>satu</i>	[saa.tu]	the first syllable is lengthened	v
12.	<i>dua</i>	[?u.a]	there is a faint sound at the beginning /d/	v
13.	<i>tiga</i>	[?i.ga]	there is a faint sound at the beginning /t/	v
14.	<i>mata</i>	[ma-ta]	rather fast and correct	√
15.	<i>hidung</i>	[hi.duŋ]	clear and correct	√
16.	<i>tangan</i>	[ta.ŋan]	slowly and correctly	√
17.	<i>kaki</i>	[ka.ki]	slowly and correctly	√
18.	<i>pipi</i>	[pi.pi]	slowly and correctly	√
19.	<i>makan</i>	[ma.kan]	clear and correct	√
20.	<i>kapal</i>	[ka.paʔ]	there is final sound deletion /l/	v
21.	<i>sandal</i>	[san.daʔ]	there is final sound deletion /l/	v
22.	<i>balon</i>	[ba.on]	there is sound loss in the middle /l/	v
23.	<i>kepala</i>	[ke.pa.a]	there is sound loss in the middle /l/	v
24.	<i>nyamuk</i>	[ŋa.moʔ]	there is sound loss in the middle /k/	v
25.	<i>monyet</i>	[mo.ɲət]	slowly and correctly	√
26.	<i>ngantuk</i>	[ŋan.tuʔ]	there is sound loss in the middle /k/	v
27.	<i>datang</i>	[da.taŋ]	slowly and correctly	√
28.	<i>sungai</i>	-	cannot say	x
29.	<i>bau</i>	[ba.o]	final sound changes occur	v
30.	<i>mau</i>	[ma.o]	final sound changes occur	v
31.	<i>aurat</i>	-	cannot say	x
32.	<i>mau makan</i>	[- ma.kan]	there is an omission of the first word	v
33.	<i>sudah makan</i>	[- ma.kan]	there is an omission of the first word	v
34.	<i>belajar</i>	[be.a.jar]	there is sound loss in the middle /l/	v
35.	<i>makanan</i>	[makan-]	there is an omission of the suffix /- an/	v
36.	<i>ini</i>	-	cannot say	x
37.	<i>itu</i>	-	cannot say	x
38.	<i>Mamah</i>	[Ma-]	there is omission of final syllables /-mah/	v
39.	<i>Ibu</i>	[-bu]	there is initial sound deletion /i-/	v

Notes:

√ = successfully spoken

v = there is a change in the sound of speech

x = failure of narration

When they first started school, MA students were already familiar with the alphabet. Then, after two semesters at school, they began to show improvement, such as being able to pronounce words with perfect syllables. For example, MA was able to say the word *balon* (balloon), but his pronunciation was still not perfect because he tended to omit the /l/ sound in the middle of the word. As a result, the word becomes *ba.on*. Meanwhile, MA students can easily pronounce words with two syllables, such as *daun*, perfectly. However, this must be instructed by the teacher and repeated by the student. Thus, MA students are able to pronounce a word clearly by combining several syllables.

In addition, MA already understands the concept of colors in front of him. He can perfectly pronounce colors with two syllables, namely *bi.ru*. The letter /r/ in the middle of the word is clearly audible. Furthermore, MA can pronounce the consonant /r/ at the beginning, middle, and end of words, such as *rumah* (house), *lapar* (hungry), and *marah* (angry). However, all of this requires instruction from the teacher with repeated practice. In addition, the language skills of children with autism can improve by applying image-based sound recognition techniques (ASTUTI & MULYANTO, 2023). After that, he became unfocused again with what was being discussed because his eyes were always wandering.

MA's inability to pronounce the phoneme /l/ in the middle position rather than /r/ is unique. This is because most children are able to pronounce /l/ before /r/. Both phonemes belong to the same group of sounds, namely apicoalveolar. The difference lies in the point of articulation, namely /l/ is lateral, while /r/ is trilled. Thus, /l/ should be easier to pronounce than /r/, except for people who are lisping. However, in the above case, there may be a problem with the motor planning system in the mouth area. This condition can also be called dyspraxia (Konstantopoulou & Trapali, 2023).

Despite this, some children's ability to pronounce /r/ before /l/ can be attributed to the elastic shape and position of their tongues.

Therefore, acoustic factors and tongue motor strategies contribute to some children, including MA, mastering /r/ more quickly than /l/. This has also been studied by several researchers, who have shown that /r/ can be pronounced earlier by some children (Idemaru & Holt, 2013); (Klein et al., 2013).

In line with these similar sounds, MA students can also distinguish between the sounds /p/ and /b/, as in the words *pola* and *bola*. In addition, they can pronounce the sounds /f/ and /v/, as in the words *foto* and *kanvas*. They can also pronounce the sound /z/, as in the word *zebra*. However, the letter /r/ is not pronounced, so they say *zeba* because of the adjacent consonants /b/ and /r/.

When it comes to spelling words, MA students are already starting to get the hang of it, but it does take them quite a while to process. Eventually, they can complete the pronunciation of a 1-syllable word with a sequence of 2 letters written on paper. The sounds are *do..* (rather long and slow); *di..* (short and fast); *ba..* (long and slow); *de..* (short and fast). However, they still need to be guided slowly by their teacher. The following is documentary evidence.

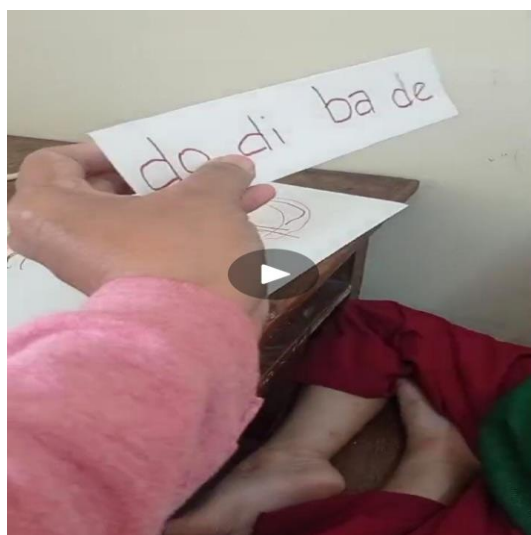


Figure 4. Instructions for Pronouncing Words through Writing.

In addition to being able to say words with one or two syllables, MA can already count from 1 to 3. Even though the numbers are not written

down, MA already understands the concept of numbers and has memorized their sequence. MA can say the number 1 perfectly, which is “saa.tu” (a bit slowly). However, the tone changes too quickly for numbers 2 and 3 (between two and three, it's said together, which is “?ua.?iga”), so only the last part of the word is spoken. After that, MA loses focus and even yells, making it uncomfortable to give instructions.

MA students also always clench their upper teeth with their lower teeth as if they were chewing when they no longer want to communicate. However, when relaxed, they are willing to count again, even numbers 1-10 are spoken casually. It sounds fairly clear, but slow (because he feels comfortable with his teacher). After that, MA was asked to recite the alphabet in order, but he refused and only said the first letter, A. However, it is unclear whether he truly understands the concept of the letter A or if it is a form of refusal.

It is known that when asked to say something different (another topic), MA refuses because he lacks focus. To move on to a new topic, he needs a fairly long pause. When learning to spell vowels, he can pronounce them correctly. However, when someone passes by, he suddenly stops at the last letter he pronounces and may not finish saying the vowel, for example, only a, i, u. So, he does not finish the letters e and o. Not only vowel sounds, MA students can also pronounce several words.

When asked to name known body parts, MA remained silent. Therefore, to begin with, he still had to be instructed by his teacher, and he tended to repeat what his teacher said. When pointed at and asked, “What is this called?”, he did not answer immediately. However, when the teacher asked again while helping him to say the first syllable, “ma-”, he was able to answer correctly, “mata” (rather quickly).

The second object pointed out by the teacher with the same question, MA was able to answer immediately and clearly, namely hidung. When asked and pointed to other body parts, he began to answer slowly but correctly, such as mata, tangan, kaki, and pipi. This meant that he was focused on the topic. However, this did not

last long because MA began to get bored and lose concentration. This means that MA is easily distracted by new and more interesting things, so his communication is simply abandoned.

Uniquely, even though MA can already say two syllables, such as ma.kan, if the last syllable contains a consonant, he cannot pronounce it, as in the word ka.pal, where the /l/ sound does not appear, so it is pronounced ka.pa? san.da?. This is evident in the pronunciation of the word balon, which becomes ba.on. Thus, the /l/ sound becomes a glottal stop. During this period, MA is being trained to pronounce slightly longer root words so that he can pronounce three syllables, but the last syllable does not contain a consonant sound, as in the word ke.pa.la.

When tested with double consonants, such as kr and pr, MA students cannot pronounce them at all. However, they can pronounce ny and ng, whether at the beginning, middle, or end of a word, such as nyamuk (mosquito) and monyet (monkey). In addition, MA can also pronounce the words ngantuk and datang, which contain the double consonant [ng], quite well. This means that for people with autism, the letter /r/ accompanied by a consonant is more difficult to pronounce than /n/. However, in the word nyamuk, the final letter /k/ also produces a glottal sound.

The same thing happens with double vowels, whether they are diphthongs or not. MA students are unable to pronounce diphthongs at the end of words, such as in the word *su.ngai. Meanwhile, the words bau and mau are pronounced as ba.o and ma.o. This can happen because the vowel /a/ is closer to /o/, namely the vowel sound [a] is at a low tongue position and the vowel sound [o] is at a middle tongue position, while [u] is high. However, if the diphthong is at the beginning, MA students can pronounce it correctly, such as in the word au.rat.

At a higher language level, MA is not yet able to say two or more words that form a clause, such as mau makan (want to eat). In addition, when using the aspect of time in certain conditions, such as *sudah makan (have eaten), the bold part is not pronounced. So, when asked about eating, he only says makan (eat) or he only

says mau (want). In essence, he can only say one word, whether about objects or requests. Even so, MA students have been introduced to affixes, such as in the word belajar (to learn). They are also able to imitate them well, except when the affix is at the end of the word, such as *makanan (food). So, they only say makan without the suffix -an. In fact, without the suffix -an, the meaning will be different (Pratikno, 2022).

There are many aspects of vocabulary categorization that MA students have not yet mastered. They are not familiar with interrogative forms or question words, so when asking questions, they often simply repeat their teacher's instructions. They also cannot use demonstrative pronouns properly, but they do understand the concept of demonstrative pronouns, such as "where are your sandals?" so they can express demonstrative pronouns such as ini/itu (that and this) which is far and which is near.

The advantage is that MA students are already able to express pronouns or greetings properly, such as Mamah becoming Ma; and Ibu becoming Bu. This means that they have mastered the theory of word shortening. In addition, MA students can refer to themselves by name rather than using first-person pronouns. Furthermore, they can also use words of negation/refusal properly. For example, when they are teased by their opponents, they will say the word tidak (no).

During the adjective assessment, MA was not yet familiar with adjectives, such as the concepts of long and short, big and small, and so on. He knew about balls, but did not understand the concept of size, whether a ball was big or small, and did not even understand that a ball was circular in shape. In addition, MA does not recognize monetary denominations, such as one thousand, two thousand, five thousand, etc. However, once again, if he is engaged in conversation for too long, he always bites his teeth until it can be heard by those around him. Such a habit will certainly affect his language skills.

CONCLUSION

Students with autism who are classified as educable have improved language skills. They can pronounce similar bilabial sounds, such as /p/ and /b/, apicoalveolar */l/ and /r/; count from 1 to 10; and recognize concepts when instructed, although not yet perfectly. Although he can pronounce the consonants, when someone passes by, he suddenly stops at the last letter he pronounces and may not finish saying the vowels, for example, only a, i, u. So, he does not finish the letters e and o. Of course, this is caused by the child's lack of focus due to other things that interest him.

At a higher language level, MA is not yet able to say two or more words that form a clause, such as mau makan (want to eat). In addition, when using the aspect of time in certain conditions, such as *sudah makan (already eaten), the bolded part is not spoken. When asking for food and when eating, he only says makan (eat) or he only says mau (want). Therefore, he can only say one word, whether it is about an object or a request. In addition, there are still many categories of words that he has not mastered, such as adjectives, interrogatives, currency values, and word endings.

Based on this, teachers need to implement the most effective repetitive instruction method in special schools. One such method is structured repetition, spoken slowly. This way, children will find it easier to follow. Furthermore, teachers must be more creative in language learning, always linking it to children's social activities, so they will be more interested and enthusiastic because of the added incentives, such as storytelling and singing.

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