Vol.1, No.1, 2026, pp. 001-010
DOI: xxxxx

Indonesian Journal of Special Educational Needs (I-Joursen)
ISSN: xxxx (Print) ISSN: xxxx (Electronic)

Journal homepage: https://journal.uml.ac.id/index.php/IJ/index
Email: ijoursenjurnal@gmail.com / ijoursen@uml.ac.id

The Ability to Recognize Vowel Letters through the Pocket Media among Grade II Students with Autism at SLB IT Baitul Jannah Bandar Lampung

Eko Wahyudi[1], Ratna Tri Utami[2]
[1,2]Prodi Pendidikan Luar Biasa, Universitas Muhammadiyah Lampung, Indonesia
Email: [1]ekowahyudi1702@gmail.com, [2]ratnatriutami020690@gmail.com

ARTICLE INFO

Article history:

Received: October 2, 2025
Revised: December 12, 2025
Accepted: January 26,2026

Keywords:

Autism
Autistic Children
Pocket Media
Students Autism
Vowel Letters

ABSTRACT

This study aimed to improve the ability to recognize vowel letter through letter bag media for autistic students in grade II at SLBIT Baitul Jannah Bandar Lampung. This study used a Single Subject esearch (SSR) or research with a single subject. This Study used an A-B-A research design namely Baseline-I (AI), Intervention(B), and Baseline -2 (A2). The subjects in this study were autistic students in greade II who attended SLBIT Baitul Jannah Bandar Lampung who and experienced cognitive impairment. Researchers collected data using observation and partical tests. Data analysis techniques of the study were carried out through in and between condition. Tables and graphs are used in presenting the research results. The results of the research that have been carried out have proven the latter bag media can improve the abilityto recognize vowel for autistic student in grade II. This is evidenced by the increase in the mean level obtained baseline-1(A1) OF 20,95% which was obtained by intervation 61.32%, then the obtained baseline 2(A2) of 63,99% this prove that there is an incereasein the abilityto recognize vowel before and after the intervtion. In addition, the perecentage of overlapping data between the baseline-1 (A1) and intervention phase was 0%. Overall the letterbag media has a positive effect and can be used to improve the ablity to recognize vowel for autistic studens in grade II at Baitul Jannah Bandar Lampung.

This is an open access article distributed under the Creative Commons Attribution -ShareAlike 4.0 International License (CC BY SA) license (https://creativecommons.org/licenses/by-sa/4.0/), This license lets others remix, tweak, and build upon your work even for commercial purposes, as long as they credit you and license their new creations under the identical terms ©2026 Indonesian Journal of Special Educational Needs (I-JOURSEN). Published By Universitas Muhammadiyah Lampung. p-ISSN xxxx-xxxx | e-ISSN xxxx-xxxx.

Corresponding Author:

Eko Wahyudi
Prodi Pendidikan Luar Biasa, Universitas Muhammadiyah Lampung, Indonesia
ekowahyudi1702@gmail.com

INTRODUCTION

Autistic children are children with special needs who experience disorders in brain development. These disorders are characterized by impairments in social interaction, communication, and behavior (Jamaris, 2015). The challenges experienced by autistic children not only make it difficult for them to adapt to their environment but also hinder their academic achievement. Therefore, learning for children with special needs, particularly children with autism, must be adjusted to their physical, emotional, social, mental, intellectual conditions, and special talents. Desiningrum (2016) states that children with special needs, including those with autism, require special treatment in all aspects due to the developmental disorders and abnormalities they experience.

Researchers identified academic problems among autistic students at a school, specifically in Grade IX of Baitul Jannah Special Junior High School. Based on information obtained from the Grade IX teacher, during mathematics lessons the students appeared unenthusiastic and experienced difficulties in recognizing numbers. Number recognition is a fundamental skill in learning mathematics. According to Gandana, Pranata, and Danti (2017), the ability to recognize numbers is essential in daily life, such as identifying house numbers and understanding calendars. Christie et al. (2011) state that children with autism have diverse abilities; some excel academically, while others demonstrate strengths in the arts.

The problem of identifying numbers 10–20 among autistic students, as described above, was identified through preliminary observations conducted at SLB IT Baitul Jannah Bandar Lampung. The researchers found that an autistic student with the initials AMM, although already enrolled in Grade IX of SMPLB, still had a low ability to identify numbers 10–20. For example, when the teacher assigned tasks requiring the student to identify and sequence numbers from 10 to 20, the student often hesitated and was unable to complete the tasks correctly. The student frequently lacked confidence, postponed completing assignments, and sometimes avoided participating in learning activities.

During the observation, AMM was unable to meet the basic competencies and indicators outlined in the learning materials prepared by the teacher. While ninth-grade students are expected to be able to perform basic addition and subtraction operations, the student was unable to do so. Even when asked to write numbers from 10 to 20, the student could not write them correctly. These difficulties resulted in mathematics scores that remained below the minimum passing grade of 65.

Based on field observations, problems were also found in the way learning was delivered by educators. During instruction, teachers did not use effective learning media or varied teaching strategies. Teachers often relied solely on worksheets containing numbers. Considering that autistic children have difficulty generalizing abstract information, while numbers are abstract mathematical concepts (Runtukahu & Kandou, 2016), learning should utilize concrete learning media to help autistic students understand numerical concepts and increase their motivation to learn.

Learning media for autistic children must be modified or adapted to their conditions and needs to provide opportunities for them to develop their potential optimally (Sartika, 2013). One learning medium that can help students understand abstract numerical concepts is the number train (Adiningsih, 2008). In addition to using instructional media, learning activities should also be designed to be enjoyable, such as learning through play. When students begin to feel bored, teachers can invite them to play with the number train while integrating number recognition activities involving numbers 10–20. This approach creates a positive and enjoyable learning experience.

Several previous studies support the use of concrete and visual media in learning. Puspita et al. (2019) demonstrated the effectiveness of visual media in teaching English to autistic children by making abstract concepts more concrete. Similarly, Antania and Sulthoni (2015) found that the use of number train media improved counting skills and geometric shape recognition among fourth-grade deaf students. Furthermore, Triandini and Atiyyah (2020) reported that playing with number trains improved counting abilities in kindergarten students. These findings strengthen the rationale for using number train media in this study. In this research, the number train was modified so that each carriage could be detached and reattached using hooks, allowing flexible use according to learning needs.

This study aims to determine the role of number train media in improving the ability to identify numbers 10–20 among autistic students in Grade IX of SMPLB at SLB IT Baitul Jannah. Accordingly, the research question is **"**What is the role of number train media in improving the

ability to identify numbers 10–20 among autistic students in Grade IX of SMPLB at SLB IT Baitul Jannah?"

METHOD

This study employed an experimental approach using a single-subject research (SSR) design with an ABA structure. The research was conducted over a two-month period, from the third week of April to the second week of June 2021. This duration was determined due to scheduling constraints related to the student's examinations and school holidays. The study was carried out at SLB IT Baitul Jannah Bandar Lampung, located on Jalan Pramuka No. 43, Kemiling District, Bandar Lampung City.

The research subject was an autistic student enrolled in Grade IX of SMPLB at SLB IT Baitul Jannah Bandar Lampung who experienced difficulties in identifying numbers 10–20. Data were collected through observation and written tests. Observations were conducted concurrently with the administration of written tests. The written tests were used to assess the development of the student's ability to identify numbers 10–20, while observation sheets were completed by the researchers to record the student's performance during each session.The observation instrument used in this study was a checklist. Both written worksheets and observation instruments were applied in each research phase, namely baseline-1 (A1), intervention (B), and baseline-2 (A2).

Furthermore, the research instruments and instructional media used in this study were validated by several experts. The validation results indicated that the instruments and media were appropriate for use, with several recommendations for improvement.

Figure 1. Media before (left) and after (right) validation of the number train media

Several suggestions were noted in the comments section of the number train media validation sheet. Ratna Tri Utami, M.Pd., as a learning media expert, suggested that the size of the numbers on the number train should be enlarged and that brighter colors should be used on the number carriages. A similar opinion was expressed by Dwi Desmayanasari, M.Pd., as a mathematics expert. Meanwhile, Yulvia Sani, M.Pd., as an autism expert, advised that health protocols should always be observed when implementing the number train media with children. Dewi Wulan, A.Md., as the homeroom teacher, stated that the number train media was suitable for use. Figure 1 presents the revised version of the number train media based on the validators' suggestions.

Regarding the research instrument, of the four validators, only Yulvia Sani, M.Pd., recommended adding a pointing aspect to the assessment of children's ability to identify numbers 10–20. The other three validators considered the instrument appropriate for use.

The research procedures were divided into three phases, as described below.

1. Baseline-1 (A1)

   Activities in this phase were conducted to determine the child's initial ability to identify numbers 10–20 before the implementation of the number train media. Baseline-1 activities were carried out using observation techniques and a written test administered simultaneously. The written test consisted of a student worksheet containing 11 questions.
2. Intervention (B)

   Activities in this phase involved providing treatment in the form of number train media to assist the child in identifying numbers 10–20 through activities such as recognizing, writing, and pointing to numbers. The intervention procedures were as follows:
   a. Opening Activities
      1) The researcher prepared the number train media and arranged the learning environment
      2) The researcher invited the child to pray together
      3) The researcher motivated the child and initiated the learning activity
   b. Core Activities
      1) The researcher prepared and explained numbers 10–20 to be attached to the train carriages
      2) The researcher pronounced the numbers 10–20, and the child was asked to repeat them.
      3) The child was asked to help find and attach the correct numbers to the appropriate carriages
      4) After matching the numbers on each carriage, the child was encouraged to observe the attached numbers carefully
      5) The child was then instructed to pay attention to the questions and complete the tasks using the number train media.
   c. Closing Activities
      1) The researcher asked the child to repeat the activity without using the number train media to assess the development of the child's ability
      2) The researcher invited the child to pray together before concluding the lesson.
   3. Baseline-2 (A2)

      Activities in the Baseline-2 phase involved administering a written test without using the number train media, as conducted during the intervention phase. Observations were also carried out to determine whether there was an improvement in the child's ability to identify numbers 10–20. This phase aimed to assess the effectiveness of the intervention provided.

      After all procedures were completed, the data were analyzed using descriptive statistical techniques and presented in the form of tables and graphs. Data obtained from tests and observations were analyzed using visual analysis both within and between conditions.

RESULT AND DISCUSSION

RESULT

This study employed a single-subject experimental design with an ABA structure. The data presented represent the results of 20 sessions, consisting of 5 sessions in Baseline-1 (A1), 10 sessions in the Intervention phase (B), and 5 sessions in Baseline-2 (A2). Each session across all phases lasted 60 minutes. The research findings are described as follows.

1. Results of the Baseline-1 Phase (A1)

   Activities in the Baseline-1 phase focused on collecting initial data on the child's ability to identify numbers 10–20 prior to the intervention. During this phase, the child was asked to complete worksheets containing tasks related to recognizing, bolding, and writing numbers 10–

20. Observations were conducted simultaneously while the child worked on the worksheets. The results of the five observation sessions in the Baseline-1 phase are presented in Table 1.

Table 1. Ability to Identify Numbers 10–20 during the Baseline-1 Phase (A1)

Session	Day, Date (Time)	Amount Mark	Category
1	Saturday, April 17, 2021 (09:00 – 10:00)	20	Enough
2	Saturday, April 17, 2021 (10:00 – 11:00)	23	Enough
3	Monday, April 19, 2021 (09:00 – 10:00)	21	Enough
4	Tuesday, 20 April 2021 (09:00 – 10:00)	22	Enough
5	Tuesday, 20 April 2021 (10:00 – 11:00)	22	Enough

Based on the observations conducted during the Baseline-1 (A1) phase, which assessed the child's ability to identify numbers 10–20, the results indicated a slight increase in scores. However, this improvement was minimal, suggesting that the child's ability to identify numbers 10–20 remained relatively low during this phase. The observation data from the Baseline-1 sessions are illustrated in Figure 2 to clarify the child's initial level of number identification ability.

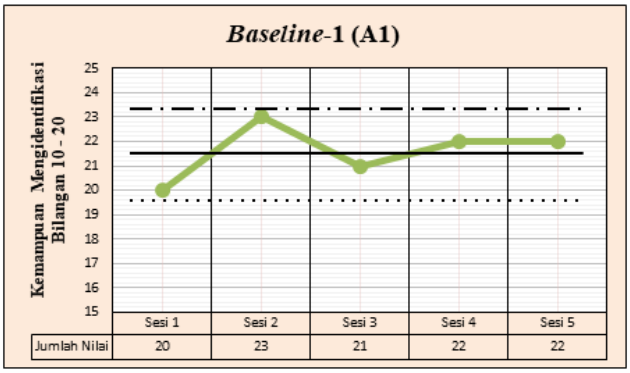

Figure 2. Explains that the Child Experienced a Slight Improvement

Figure 2 shows that the child experienced a slight improvement; however, the level of achievement remained low, with an average score of 21.6. Based on the observations and written tests conducted, several factors were identified as contributing to the low score. These factors included the child's lack of interest in completing the tasks and the tendency to leave the classroom for extended periods, often with the excuse of going to the restroom.

2. Results of the Intervention Phase (B)

The intervention phase (B) began with the researcher preparing worksheets, observation instruments, stationery, number train media, and hand sanitizer. The researcher then greeted the child and invited the child to pray before the learning activities commenced. During the intervention phase, participant observation was conducted while the child received treatment in the form of number train media and completed the prepared worksheets. The results of the measurements obtained from ten sessions during the intervention phase are presented in Table 2.

Table 2. Ability to Identify Numbers 10–20 during the Intervention Phase (B)

Session	Day, Date (Time)	Amount Mark	Category
1	Thursday, April 22, 2021 (09:00 –10:00)	25	Enough
2	Friday, April 23, 2021 (09:00 –10:00)	25	Enough
3	Saturday, April 24, 2021 (09:00 –10:00)	26	Enough

4	Monday, April 26, 2021 (09:00 –10:00)	25	Enough
5	Wednesday, April 28, 2021 (09:00 –10:00)	28	Good
6	Thursday, April 29, 2021 (09:00 –10:00)	26	Enough
7	Friday, April 30, 2021 (09:00 –10:00)	27	Enough
8	Monday, May 3, 2021 (09:00 –10:00)	33	Good
9	Tuesday,May 4, 2021 (09:00 –10:00)	29	Good
10	Tuesday,May 4, 2021 (09:00 –10:00)	29	Good

Table 2 indicates an improvement in the child's ability to identify numbers 10–20 following the intervention using number train media. The scores obtained during the intervention phase were higher than those recorded in the initial baseline phase.

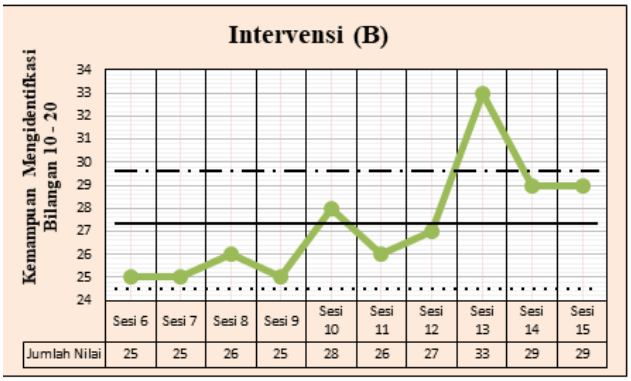

Figure 3. Total Score of Ability to Identify Numbers 10-20 in the Intervention Phase (B)

Based on Figure 3, the scores for identifying numbers 10–20 showed an overall increase, although some fluctuations were observed. Despite these fluctuations, the scores tended to remain stable, with an average score of 27.3.

Results of the Baseline-2 Phase (A2)

During the Baseline-2 phase, the number train media were no longer used. This phase aimed to determine whether the learning media provided during the Intervention phase had a sustained effect on the child's ability to identify numbers 10–20. Data collected during the Baseline-2 phase further supported the effectiveness of the number train media as a learning tool for improving number identification skills.

Table 3. Ability to Identify Numbers 10–20 during the Baseline-2 Phase (A2)

Session	Day, Date (Time)	Amount Mark	Category
1	Wednesday, June 2, 2021 (09:00 – 10:00)	25	Enough
2	Thursday, June 3, 2021 (10:00 – 11:00)	25	Enough
3	Friday, June 4, 2021 (10:00 – 11:00)	28	Good
4	Saturday, June 5, 2021 (09:00 – 10:00)	28	Good
5	Monday, June 7, 2021 (09:00 – 10:00)	28	Good

Activities conducted during the Baseline-2 phase were the same as those implemented in the Baseline-1 phase. Data collection in the Baseline-2 phase was carried out using observation techniques accompanied by the completion of a checklist-based observation sheet, consistent

with the procedures used in the Baseline-1 and Intervention phases. The measurement results obtained during the Baseline-2 phase are presented in Table 3.

Table 3 indicates an improvement in the child's ability to identify numbers 10–20, as reflected by a higher average score compared to the Baseline-1 phase, with an average score of 26.8. The scores obtained during the Baseline-2 phase were relatively stable and comparable to those achieved in the final session of the Intervention phase. Although a slight decrease was observed at the beginning of the Baseline-2 phase, the child's ability to identify numbers 10–20 gradually increased over subsequent sessions.

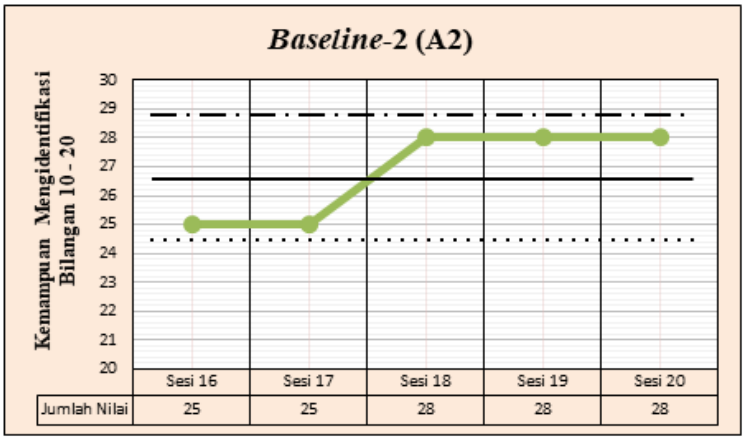

Figure 4. Total Score of Ability to Identify Numbers 10-20 Baseline-2

Figure 4 shows that the scores for the ability to identify numbers 10–20 increased and remained stable. This indicates that the child experienced an improvement in number identification ability after receiving the intervention using number train media.

Data Analysis

1. Within-Condition Analysis

The components of the within-condition analysis include condition length, estimation of trend direction, stability trend, data path, level of stability and range, and level changes. A summary of the within-condition analysis results is presented in Table 4.

Table 4. Summary of Within-Condition Analysis Results

No	Condition	Baseline-1 (A1)	Intervention (B)	Baseline-2 (A2)
1.	Condition Length	5	10	5
2.	Trend Direction Estimation	(–)	(+)	(+)
3.	Stability Trend	Stable	Stable	Stable
4.	Data Path	(–)	(+)	(+)
5.	Stability Level and Range	Stable (19.8–23.3)	Stable (24.8–29.6)	Stable (24.7–28.9)
6.	Level Change	22–20 (+2)	29–25 (+4)	28–25 (+3)

These results indicate an improvement in the ability to identify numbers 10–20, as reflected by an increase in the scores obtained. This finding is further supported by the stability of the data in the Baseline-2 phase, which demonstrates that the child's ability to identify numbers 10–20 improved after receiving the treatment in the form of number train media.

2. Between-Condition Analysis

The components of the between-condition analysis include the number of variables changed, changes in trend direction and their effects, changes in stability, level changes, and data overlap. A summary of the between-condition analysis results is presented in Table 5.

Table 5. Summary of Between-Condition Analysis Results

No	Condition	B / A1	A2 / B
1	Number of Variables Changed	1	1
2	Changes in Trend Direction and Effect	(+) Positive (–)	(+) Positive (+)
3	Changes in Stability	Stable to Stable	Stable to Stable
4	Level Change	(22–25) +3	(25–29) +4
5	Data Overlap	0%	100%

During the intervention using number train media, the effect of the treatment remained evident in the Baseline-2 phase, as indicated by an increase in the scores obtained by the child.

DISCUSSION

The results of this study indicate that number train media are effective in improving the ability of autistic children to identify numbers 10–20. The effectiveness of the number train media is reflected in the increasing scores across each research phase. An improvement was observed from the Baseline-1 (A1) phase to the Intervention (B) phase, and although there was a slight decline at the beginning of the Baseline-2 (A2) phase, the scores increased again toward the end of this phase. As demonstrated in the data analysis, the child's ability to identify numbers 10–20 showed better performance after receiving the intervention using number train media. These findings confirm that the number train media effectively support autistic children who experience difficulties in identifying numbers 10–20, thus supporting the hypothesis proposed in this study.

Learning media should be modified to accommodate children's learning needs (Sartika, 2013). The number train media used in this study were adapted to the child's needs and validated prior to implementation, ensuring that the media met the objectives, functions, and requirements of effective instructional tools. The use of number train media was expected to improve the child's ability to identify numbers 10–20, including the ability to write and point to the numbers accurately and correctly.

The Baseline-1 phase was conducted to assess the child's initial ability to identify numbers 10–20. During this phase, learning activities were carried out without the use of number train media, resulting in a relatively low average score of 21.6. Prior to the intervention, the child easily became bored, showed low interest in learning, and was reluctant to complete tasks related to number recognition. This condition reflects the limited ability to identify numbers 10–20 during the Baseline-1 phase. Autistic children often experience difficulties in understanding abstract concepts, while numbers are inherently abstract mathematical concepts (Runtukahu & Kandou, 2016). Therefore, autistic children require more visual learning support, such as media that present images or symbols to represent abstract information (Dodd, 2000). Number train media serve as a concrete visual learning tool that helps children understand abstract numerical concepts (Adiningsih, 2008), making them suitable for improving number identification skills.

Following the Baseline-1 phase, the intervention was implemented using number train media. Before the learning activities began, the researcher explained how to use the number train media. At each session, the researcher prepared the media and encouraged the child to focus on the

learning activities. After the intervention was introduced, an improvement in the child's ability to identify numbers 10–20 was observed, as indicated by an average score of 27.3. The child showed notable progress, particularly in writing numbers more accurately, although some inconsistencies in writing remained.

The Baseline-2 phase was conducted to examine the sustainability of the intervention's effects. During this phase, learning activities were conducted without the use of number train media, similar to the Baseline-1 phase. Over five sessions, the child achieved an average score of 26.8, which was significantly higher than the Baseline-1 average score. This finding indicates that the effects of the intervention persisted even after the media were withdrawn. Additionally, the child's interest and motivation in learning increased after the intervention. Learning numbers through enjoyable activities, such as learning while playing, is recommended to maintain children's engagement (Adiningsih, 2008). The number train media allowed learning to occur in a playful and engaging manner, reducing boredom and avoidance behaviors. The provision of rewards also contributed to increased motivation and enthusiasm during learning activities.

The findings of this study are consistent with previous research. Puspita, Padmadewi, and Wahyuni (2019) found that visual media effectively support English learning for autistic children by making abstract concepts more concrete. Similarly, Antania and Sulthoni (2015) reported that number train media facilitated mathematics learning for deaf students, including counting and identifying geometric shapes. Triandini and Atiyyah (2020) also found that learning through play using number train media increased children's interest and counting ability. These studies support the conclusion that visual media, such as number train media, enhance abstract understanding and strengthen memory, thereby improving children's ability to identify numbers 10–20.

Based on the data analysis and discussion, it can be concluded that number train media are effective in improving the ability to identify numbers 10–20 in autistic children. This effectiveness is reinforced by findings from relevant studies involving different participants and dependent variables. The visual emphasis of the number train media, including appropriate color selection, helped the child maintain focus and understand numbers more easily. The learning-through-play approach increased enthusiasm and reduced avoidance behaviors, leading to fewer errors in writing and identifying numbers, although occasional difficulties in sequencing numbers 15–20 were still observed. Overall, the child's average scores increased across phases, from 21.6 in Baseline-1, to 27.3 during the Intervention phase, and remained high at 26.8 in Baseline-2.

In conclusion, number train media can be used as an effective strategy to address difficulties in identifying numbers 10–20 among ninth-grade autistic students at SMPLB Baitul Jannah in Bandar Lampung. However, this study has several limitations. Challenges arose in managing the child's learning behavior, as the child frequently sought excuses that reduced effective learning time. Additionally, the limited research duration, which coincided with the COVID-19 pandemic and school examination schedules, constrained the implementation of the intervention. These conditions required frequent coordination with teachers and parents and may have influenced the child's performance, particularly at the beginning of the intervention phase. Future researchers are encouraged to consider these limitations, especially in selecting an appropriate research timeline to ensure more optimal learning conditions.

CONCLUSION

Based on the description of data analysis and discussion, it can be concluded that the number train media is effective in improving the ability to identify numbers 10-20 in autistic children of grade IX of SMPLB at SLB IT Baitul Jannah Bandar Lampung. This is evidenced by an increase in the number of scores obtained by children and the results of the analysis that have shown an increase

in the number of scores obtained from observations when children work on the worksheet of the ability to identify numbers 10-20. The average number of scores obtained by children in the Baseline-1 phase is 21.6. Furthermore, children experienced an increase in the Intervention phase to 27.3. Then in the Baseline-2 phase as a reference for the final results of the ability to identify numbers 10-20 children after being given treatment or Intervention, namely getting 26.8.

This isn't just about the grades they earn, but also about their attitudes when working on the worksheets on identifying numbers 10-20. Children typically lack interest in learning about numbers in the tens and tens of thousands, but with the help of the number train, they appear more engaged and enthusiastic about learning.

ACKNOWLEDGMENTS

Deep appreciation is extended to Universitas Muhammadiyah Lampung for the academic support, facilities, and guidance provided during the research process. The researcher also thanks the principal, teachers, and staff of SLB IT Baitul Jannah Bandar Lampung for their cooperation and assistance, as well as the validators, experts, and all parties who contributed valuable input to improve the quality of this study. Special thanks are also given to the student and the student's family for their participation, and to family and colleagues for their continuous support and encouragement.

REFERENCES

Adiningsih, Neni Utami. (2008). *Permainan Kreatif Asah Kecerdasan Logis-Matematis Balita*. Bandung: Semesta.

Antania, Tia & Sulthoni. (2015). Efektivitas Media Kereta Api Tiga Dimensi terhadap Kemampuan Menyebutkan Bangun Ruang pada Siswa Tunarungu. *Jurnal Penelitian Dan Pengembangan Pendidikan Luar Biasa*, 2(1) 1-4.

Christie, Phil 7. (2011). *Langkah Awal Berinteraksi Dengan Anak Autis.* Jakarta: PT: Gramedia Pustaka Utama.

Desiningrum, Dinie Ratri. (2016). *Psikologi Anak Berkebutuhan Khusus*. Yogyakarta: Psikosain.

Gandana G, Oyon Haki P dan Tannie Yulia D. (2017). Peningkatan Kemampuan Mengenal Lambang Bilangan 1-10 Melalui Media Balok Cuisenaire Pada Anak Usia 4-5 Tahun di TK At-Toyyibah. *Jurnal PAUD Agapedia*, 1(1) 92-105. https://doi.org/10.17509/jpa.v1i1.7160

Jamaris, Martini.(2014). *Kesulitan Belajar*. Bogor: Ghalia Indonesia.

Puspita, A. Sari, Padmadewi & Eka Wahyuni. (2019). Instructional Teaching Media to Promote Autistic Stundent's Learning Engagement. *Journal of Educational Research and Evaluation,* 3(2) 58-65. https://doi.org/10.23887/jere.v3i2.20975

Runtukahu, Tombokan & Selpius Kandou. (2016). *Pembelajaran Matematika DasarAnak Berkesulitan Belajar*. Yogyakarta: AR-RUZZ MEDIA.

Sartika, Yopi. (2013*). Ragam Media Pembelajaran Adaptif Untuk Anak Berkebutuhan Khusus*. Yogyakarta: Familia.

Triandini, Yuli dan Sa'adatul Atiyyah. (2020). Penerapan Permainan Kereta Angka Untuk Meningkatkan Kemampuan Berhitung Anak Usia Dini. AL IHSAN: *Jurnal Pendidikan Anak Usia Dini.* 1(1) 44-54. http://ejournal.iaiibrahimy.ac.id/index.php/alihsan/article/view/374