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Research Article

Engaging Language Through Explicit Instructions to Slow Learner Students to Learn Better Mathematics

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Abstract: The purpose of this study is to develop learning methods for students who are slow learners in learning mathematics in terms of values and places. The study used a single-subject approach to the A-B-A design (baseline 1, invention, and baseline 2). The study was conducted in an inclusive inclusion elementary school, with research subjects totaling three students who were classified as slow to learn. Learning involves children's language in the form of explicit instruction. The results showed that all three subjects experienced a good understanding of the concepts of values and place. Involving children's language makes them happy to learn mathematics. Explicit instruction helps to overcome the child's weaknesses, doing math tasks.

Keywords: Children's language, explicit instructions, values , and places, slow learner

1. Introduction

At the level of basic education up to the level of education in mathematics is a subject that must be taught (Saryantono, 2013). Mathematics allows humans to think, record, and interpret ideas about composition and quantity (Abdurrahman, 2010). Someone has the possibility of having difficulty learning mathematics characterized by the inability to understand mathematical concepts or symbols contained in them (Arisandi, 2014). Students are slow to learn, especially mathematics subjects can not gain a deep understanding of mathematics, both conceptually and procedurally (Fuchs, 2005). Slow learners learning in mathematics have problems in instruction, working memory processing, and attention. They have the difficult characteristics of communicating language symbols, thus making numeracy skills low (Masroza, 2013). One of the objectives of teaching mathematics contained in the curriculum for elementary mathematics education unit level is to develop and improve the ability to count (with numbers) in daily activities. In arithmetic, understanding of values and places is very important. The concept of place values is a basic concept that must be mastered by students in elementary schools (Yusri, 2017). For the material values and places, students are slow to learn mathematics generally make mistakes in mentioning (reading) and writing multi-digit numbers (Chan et al., 2014). Students are often wrong in writing the symbol of numbers and name numbers, mistakes occur when students determine place values and numeric values, and errors in writing symbol numbers based on place values (Matitaputty et al., 2013). With some of the characteristics already mentioned, of course, they have problems when studying mathematics and achieving learning goals (Lastaria&Istiqlaliyah, 2019).

Teacher strategies in teaching mathematics are needed so that students more easily understand the lesson and follow the instructions delivered during the learning process. The federal law (IDEA 2004) calls on teachers to provide high-quality mathematics instruction to students who experience mathematical difficulties (Yell et al., 2006). Explicit instruction involving children's language serves as a method for increasing the number of slow learning opportunities for children learning mathematics (Baker et al., 2010). Explicit instruction involving children's language is a strategy designed to develop the way students learn by using activities in stages, step by step with the aim that students can master the material optimally (Hasibuan et al., 2019). Involving children's language with explicit instruction provides a format to facilitate high-quality instructional interactions for teacher actions to students who are slow to learn (Doabler&Fien, 2013).

A study shows that by using explicit instruction can improve mathematics learning outcomes in kindergarten schools, research results reveal explicit instruction can play an important role of teachers in instructing the class (Doabler et al., 2012). Research conducted by Rajiv Satsangi using virtual manipulative balance paired with explicit instruction can improve the ability of children with mathematical difficulties in the concept of linear equations. Using explicit instruction has proven to be effective in teaching mathematics to children who have difficulty learning mathematics (MLD) especially on the concepts of fractions, decimals, and algebraic equations (Satsangi&Bouck, 2015). Recent quasi-experimental studies, documenting the importance of language

involvement in mathematics instruction for students who experience mathematical difficulties (Sood& Jitendra, 2013). Recent research has begun to document the importance of involving language through mathematical instruction to significantly improve the understanding of mathematical concepts. Based on previous research, researchers are interested in using the method of involving children's language through explicit instruction in the learning of mathematics, the concept of values , and places where students experience slow learning. The research hope is that they will be helped to learn mathematics better, accompanied by high motivation and pleasant feelings.

2. Explicit Instruction Logical Framework

Involving children's language by explicit instruction serves as a method for increasing the number of learning opportunities, bearing in mind that learners who are at risk of slow learning experience difficulties in mathematics (Baker, Fien, & Baker, 2010). Archer & Hughes, 2010 in (Gersten, Chard, et al., 2009) argues explicit instruction is an evidence-based practice that supports elementary school teachers with a practical and workable framework to provide effective and systematic instruction.

According to Christian T. Doabler, 2018 there are three components of explicit mathematical instruction namely the first explicit mathematical instruction targeted in this study is teacher demonstration, second practice guidance, and thirdly academic feedback (Doabler&Fien, 2013). The teacher's role is very important in building concepts and procedural knowledge of students. The teacher becomes the center or center in the class by demonstrating clearly and giving clear explanations of mathematical concepts, skills, procedures, and vocabulary. The second component of explicit mathematical instruction focused on current studies is practical guidance for individuals or groups. Providing opportunities for students to practice the knowledge they have is very important to support the development of mathematical skills to target critical mathematical concepts. The third component is academic feedback or evaluation. Academic feedback is used by teachers to actively monitor students' interpretations of math assignments. Research shows that academic feedback is an effective method for expanding learning opportunities, overcoming students' mistakes, and helping them get out of ignorance and misunderstanding (Hattie & Timperley, 2007)

Explicit instruction is often referred to as direct instruction, although its meaning varies in a variety of research literature, it is mostly concluded that language involvement in the form of explicit mathematical instruction involves a series of teacher activities in teaching, as follows: (a) the teacher models new concepts or skills, (b) the teacher provides a guided practice opportunity, (c) the teacher checks student understanding, (d) the teacher provides academic feedback, and (e) students who are engaged in independent practice.

The following will describe the way teachers teach students, slow learners, to recognize place values from three-digit numbers, such as Serratus Seventeen (117). Because students require deep understanding and take a long time to learn about place values (Common Core State Standards Initiative, 2010, Walle, 2003), involving children's language in the form of explicit instruction is ideal for this type of instructional situation. At first glance, the teacher will complete the following explicit instructional behavior (Doabler&Fien, 2013). (1) The teacher will begin the instruction by explaining the purpose and objectives of the lesson. In this case, the teacher will explain to students that they will learn how to use the base-10 number system to name place values from three-digit numbers. (2) The teacher will then give students examples of several different three-digit numbers. For each three-digit number, the teacher will explicitly indicate and state how many hundreds, tens, and units (for example 117 has 1 hundred, 1 tens, and 7 units).(3) The teacher can enter the base-10 number system model in a demonstration to improve students' conceptual understanding and enter one or two 2-digit numbers to teach students how to recognize the difference in place values between multidigit numbers.(4) Next, the teacher will ask students (groups or individuals) to verbally identify the place value from a three-digit number.(5) For incorrect responses, the teacher will provide direct corrective feedback. It is important to overcome students 'misconceptions immediately and to provide follow-up reviews to assess students' accuracy in responding (Stein, Silbert, &Carnine, 2006).

3. Method

3.1. Research Subjects

This study uses a single subject research method with ABA design (A = baseline 1) and (B = intervention, then baseline 2 = A2). The research subjects consisted of three students who were suspected of having difficulty learning mathematics. They are elementary school students in Banjarmasin with the initials Ay, By, and Cy. To find out the participant's comprehensive ability profile, identification, and assessment of mathematical

difficulties must first be done, through tests and observations when students take lessons. Also, interviews were conducted with mathematics teachers who taught them to obtain information about the mathematical difficulties experienced by children.

Student IQ level data are obtained through documentation of test results. All data obtained is used to develop research instruments. All three students as subjects in this study have the same mathematics teacher. Students are selected according to the following criteria: (1) are currently registered as students who take learning values and place concepts (2) are identified as students who experience slow learning (slow learners) and they have difficulty learning mathematics (3) low mathematical performance as evidenced by math scores, individual learning plan goals (IEP) (4) have a score of 50% or lower in the pre-assessment grades and places managed by researchers (5) have never previously been taught using language involvement through explicit instruction with planned (6) student approved parents to participate as research subjects. Analysis of the ability of students of mathematical difficulties is simplified on a scale of scores from 1 to 6. A score scale of 1 is categorized (very bad), 2 (bad), 3 (good enough), 4 (good), 5 (very good), score 6 (superior)

3.2 .Data collection

Data were collected fourteen times. The first to the fourth meeting was held to look for basic data or baseline (A 1), the fifth to the tenth meeting was conducted an intervention (B), namely teaching mathematics the concept of values and places using language involvement through explicit instruction. Eleven to the fourteenth meeting, a post-test was conducted to find out the increase in the ability to understand the concept of values and places as the second baseline or referred to as A2. Data were analyzed by comparing values at baseline one (A1) with the intervention (B) as well as with baseline two (A2).

4. Research Results and Discussion

4.1. Demographic Data of Slow Learner Students

The initial step, getting the data as a baseline, firstly comprehends the participant's comprehensive capability profile. Suggestions (Widodo et al., 2020b) are first carried out identification and assessment of mathematical difficulties, through tests and observations to students when attending lessons. Also, interviews were conducted with mathematics teachers who taught them to obtain information about mathematical difficulties experienced by children (Pasani&Yulinda, 2020). Because the research subjects are students in the inclusive class, social relations with other students need to be considered as peers. Related to this (Amka&Mirnawati, 2020) suggested that inclusive practices will work well when there are social relations between them. The demographic data of the subjects of this study are listed in the following table:

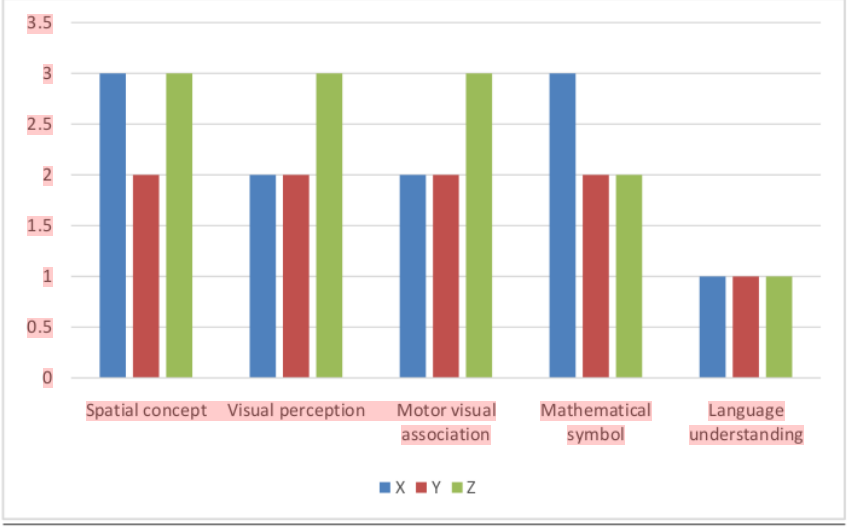

Figure 1. Demographic data of students slow learner

Figure 1 shows the data on the condition of students slow to learn mathematics. There are four pieces of information, which will be used to diagnose children's ability in mathematics, namely spatial disturbances, visual perception, motor visual association, symbol comprehension, language/information skills (Widodo et al., 2020a). Slow learners of mathematics have IQs like children in general, so in this study IQ factors will not be diagnosed. The results of the diagnosis of the mathematical difficulties of Ay, By and Cy subjects are elaborated as follows:

Ay students demonstrate ability in spatial concepts at level 3, these students are still quite good in the concept of space, for example being asked to draw body parts of a child can still position the body parts quite well. Ay's visual perception is at level 2 or bad. Children find it difficult to add up two groups of objects, children find it difficult to distinguish geometric shapes. Ay students also have difficulty in visual-motor associations they often have errors in counting objects in sequence or can be said to be at level 2. Ay students are quite good at understanding mathematical symbols (level 3). Ay, the student is very bad in understanding language, he is at level 1, this will greatly affect the completion of the story questions. By students show ability in spatial concepts at level 2, these students are bad at spatial concepts, children have difficulty when placing pictures of body parts, such as the neck where, nose, ears and so on, children find it difficult to place properly. Visual perception is at level 2 or bad. Children find it difficult to add up two groups of objects, children find it difficult to distinguish geometric shapes. By student also had difficulty in visual-motor associations he only memorized numbers but did not understand their meaning so that they were classified at level 2. Students were quite good at understanding mathematical symbols. My students are very bad or are at level 1 in understanding language.

Cy students demonstrate ability in spatial concepts at level 3, these students are quite good at the concept of space, children can still understand the distance between numbers on a number line or a ruler. Cy's visual perception is also at level 3 or good enough. Children can add up two groups of objects, children are also able to distinguish geometric shapes. Cy students also have a motor visual association at level 3 quite well, he can calculate the sequence of numbers well. Cy students are bad at understanding mathematical symbols (level 2), and are very bad or classified at level 1 in language understanding. Children have difficulty making math sentences on very simple story problems.The conclusion from the assessment results, about the ability of the subject, if classified from the highest level to the lowest level, the researchers concluded that the sequence is Cy, Ay students and the lowest is By. But it seems that all subjects have difficulty in language, they can mention numbers but do not understand the meaning of numbers. Of course, this will affect the ability of children to solve questions about grades and places. Mathematical problems are related to the ability of language to solve it.

4.2. Teaching Process

The phenomenon teaches the concept of values and places using language involvement in the form of explicit instructions. Demographic data provides a basic overview of students' ability to learn mathematics slowly. Explicit instruction can facilitate high-quality instructional interactions from teachers to students who are slow to learn (Doabler et al., 2012). Language involvement in the form of explicit instruction can be done to improve the success of learning in the classroom. The explicit instruction method can serve to increase the number of learning opportunities that bind to students the difficulty of learning mathematics through the instructions given (Baker et al., 2010). This method starts by giving examples and continuing students doing independently (Coal, 2018). Explicit mathematical instructions are often referred to as direct instructions.

According to research conducted (Gersten, Chard, et al., 2009), explicit instruction involves a series of teaching behaviors including:

- the teacher modeling new concepts or skills
- the teacher helps students practice
- the teacher identifies the level of student ability
- The teacher gives feedback to students who are given the freedom to practice independently.

Explicit instruction in evidence-based practice that supports providing primary school teachers with a practical and workable framework to provide effective and systematic instruction (Gersten, Chard, et al., 2009). The explicit instructional learning process on the concepts of values and places results as follows:

- The initial meeting of learning is done by conventional methods (lecture method). Visible students are not interested and often turn attention to other objects.
- When implementing the initial explicit instruction, students begin to be introduced to interesting instructions or directions. Student attention began to be focused and seemed enthusiastic learning from students.

- When learning to use experimental instruction methods, students seem to be able to participate in learning very well, students can pay attention to the full concentration of the flow of each learning, even students are also willing to be active in learning.
- The results showed that the IQ level of intelligence was not the only factor determining student understanding. Appropriate learning methods can also improve students' understanding of learning difficulties mathematics.

Learning to students certainly requires a special model so that students can be motivated and focused on learning activities. The researcher uses the method of involving explicit language instruction to develop an understanding of students, especially in mathematics subject matter to the concepts of values and places. To find out the level of understanding of students, researchers provide five questions about the concept of value and place. In the table below. The researcher intends to compare students' understanding of conventional teaching conditions (Wo) with teaching using the explicit instruction method (W).

Table 1. Comparative outlets of comparative results

Problem grid	Comparison Results					
	Ay		By		Cy	
	Wo	W	Wo	W	Wo	W
Mention place values	2	3	2	3	2	4
Write down place values	1	3	1	3	1	4
Count groups of numbers	1	3	2	1	2	3
Explain the difference in values and numbers	1	4	2	3	2	3
Calculate using media	1	3	1	2	2	3

Based on the data in the table above, it shows that the use of explicit instruction language involvement methods in learning mathematics is more effective than conventional methods that have been used by teachers. The three research subjects have higher values, after obtaining the learning treatment as designed by the researcher using explicit instruction language involvement. Even what happened with Cy students experienced a significant change in the value of mentioning understanding, writing grades and places, counting groups of numbers, and counting numbers using media.

To test the effectiveness of the method of involving explicit instruction languages, researchers conducted material and value concept testing. Tests were carried out four times. Every test data is taken about the understanding of students with the results as illustrated in the line diagram below:

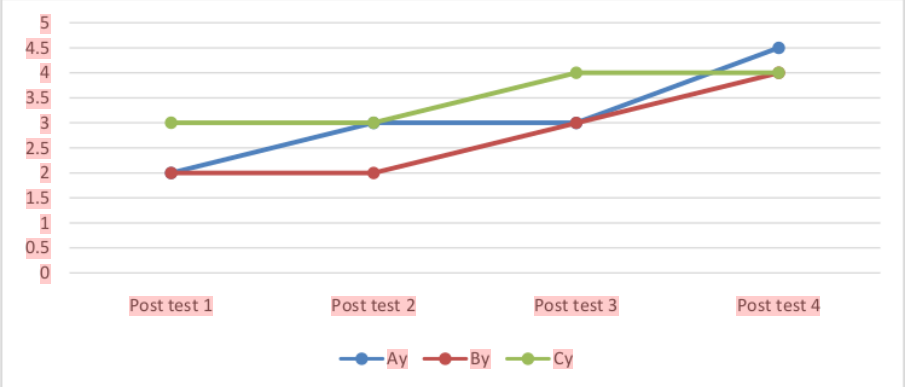

Figure 2. Post Test Result Data

At the time of the first post-test, Ay students have a level of understanding at level 2 or are categorized as poor. Then in the second and third post-test Ay increased the level of understanding, namely at level 3 or it can be said that Ay's understanding was good enough. In the fourth or final post-test, Ay's understanding increased

by 1 level above the previous level, which was at level 4, which is the category of good understanding. Furthermore, the level of understanding of students is also almost the same as Ay students. It's just that in the first and second post-test, By students are at the same level of understanding, that is at level 2 or still in the poor understanding category. But in the third and fourth or final post-test, By students experienced a good level of understanding increase, namely the third post-test was good enough and in the fourth post-test, the By students' understanding was in a good category. Then the results shown by Cy students were slightly different, Cy students experienced a fairly good understanding of the first and second posttests, while the third and fourth posttests of Cy students' understanding increased 1 level above that, namely the good understanding category. All three subjects showed a level of understanding that improved from the first post-test to the last. So that in this study shows that the involvement of explicit instruction language can affect the level of slow learner student understanding of subject matter, especially the material concepts of values and places.

5. Discussion

Using language involving explicit instruction forms in mathematics learning makes students slower learners (slow learners) easily understand the lessons being taught. Based on observations on the three subjects it can be seen that they can more easily accept learning material. This is in line with the opinion (Doabler et al., 2012) which says explicit instruction can increase the success of learning in the classroom. The teacher can interact directly so that he can easily explain the material and provide direction to students with mathematical difficulties. In line with the opinions (Kusumawati et al., 2017) that describe explicit instruction as a strong classification, a strong frame and very clearly define the boundaries of science, skills, and direct interaction of teachers. In the learning process, the teacher's position in the class as the main guide or as the center of attention. As stated by (Luke, 2014) explicit instruction is centered on the instructor, body language can be seen clearly and directly to the goals and results.

The ability to comprehend the mathematical symbols of Cy subjects is still low or bad, this is in line with the statement of LDAAmerica, 2013 (Adhim, 2019), which states that students with difficulty in mathematical have a low ability to understand numbers, mathematical symbols, difficulty in memorizing and arranging numbers, having difficulty in determining time, or difficulty in calculating. All three subjects can be concluded to have a fairly good ability in spatial concepts, but visual perception, visual-motor associations, and understanding of mathematical language tend to be low which affects arithmetic skills. As the Department of Education and Skills (DfES) argues (Butterworth, 2003), that slow learning of mathematics is a condition that affects the ability to acquire arithmetic skills. Subjects Ay, By, and Cy seems to have difficulty understanding language, they can name numbers but do not understand the meaning of these numbers. Research subjects have difficulty understanding simple things such as the concept of numbers, do not have an intuitive understanding of numbers, and have problems in learning the facts and procedures of numbers (Adhim, 2019).

Based on the results of the initial ability or ability when using conventional methods (Wo) before doing explicit instruction, it appears that the level of student understanding of some material points is low to very low. Important initial ability is measured as said by (Bano, 2012), the initial ability of students including important aspects in learning activities. So that this study can be seen as a comparison between the initial ability to use conventional methods (Wo) and the ability to use methods involving explicit instruction language (W) shows a significant difference. The level of student ability when using the explicit instruction method (W) is higher up to 1-2 levels above the level of student ability when using conventional methods (Wo). So that it can be said that explicit instruction gives positive results that can improve mathematical abilities.

Understanding the concepts of the three subject numbers Ay, By, and Cy is good. They have been able to understand the concept of numbers, seen in explaining the differences in values and numbers. This shows that involving explicit instruction language is very appropriate to be applied to the learning of values and place material. In this study, explicit instruction is described as a strong classification as a learning method. With the instructions given can encourage students to focus on learning activities so that students can think independently based on the direction of the educator.

Learning by involving explicit instruction language in this study also made all three subjects participate actively and full of concentration, in line with research (Hasibuan et al., 2019) which states that students are more active in listening to explanations after using explicit instruction strategies. Subjects Ay, By, and Cy appear to be able to follow the learning well after getting instruction from the instructor, such as research conducted by Dakun (2000) in (Wintergerst et al., 2003) ie they have found the fact that students tend to be more effectively taught with use the explicit instruction method, which is the teacher as the center or center in the class.

Ay and By students said that they had confidence and were motivated to follow learning using explicit instruction methods. Cy students feel they can follow the learning well because the language used by the teacher can be easily understood. It can be said this research shows the results that good instruction from educators can form a comfortable classroom atmosphere. Just like the results of the study (Yuwono et al., 2017) when students feel safe, comfortable, motivated, and confident will encourage their ability to learn independently. This study also shows that the three subjects have a high level of enthusiasm in learning, so researchers can draw that instruction can make students more focused. This agrees with the results of research from (Widodo et al., 2020a) which shows educators who use structured and concrete instructions make learners slow learning becomes more focused.

This research produces findings that involving explicit instruction or direct instruction in mathematics learning is the right choice and has benefits not only for students with mathematical difficulties. The benefits can be felt by students in general, seen when learning takes place they follow the learning very well. Just as Johnson (2009) said in (Marzban&Kamalian, 2013) that direct teaching is effectively applied in the classroom. Supported by research results (Jumaini, 2013) which shows the average student learning outcomes in the classroom increases for the better after using explicit instruction methods. Explicit instruction is also useful for educators who can help educators to identify each student when completing routine procedures and measure students' ability to take action following the stimulus provided (Prabawati, 2018). In line with research (Areepattamannil et al., 2020), instructions directed by educators are deemed more appropriate to develop and maintain teacher mastery. Other findings in this study are explicit instructions that can be applied by every educator, both general education teachers, special education teachers, also a mathematics education teacher. In line with the opinion that all key education personnel is responsible for providing support for explicit mathematical instruction, explicit mathematics instruction regularly is very likely to make students with mathematical difficulties able to continue struggling to learn mathematics successfully (Gersten, Beckmann, et al., 2009).

6. Conclusion

The results showed that the understanding ability of the three research subjects increased after educators involved explicit instruction language in mathematics learning. Mathematics learning material values and places using explicit instructions have a structured and concrete direction to make students more focused on the following learning. Involving children's language makes student learning activities and fun. Research subjects as students are slow to learn mathematics, helped to do better learning. Teachers in inclusive classes felt helped by the findings of this study. So that it can be said to involve language in the form of explicit instruction has a positive impact and is an appropriate method for learning mathematics for students who are slow to learn. Mathematical skills are very important for students' success in school and their daily life experiences. Although each student's interest and ability improvement is different, educators can always support the development of all students' mathematical skills. Researchers suggest that attention should be paid to each student's needs in obtaining lessons, especially for students who are slow to learn. Try to involve the child's language in learning. The use of explicit instruction can strengthen efforts to develop student understanding.

References

1. Abdurrahman, M. (2010). Pendidikan Bagi Anak Berkesulitan Belajar. In *Pusat Perbukuan Departemen Pendidikan dan Kebudayaan*. https://doi.org/10.1017/CBO9781107415324.004
2. Adhim, J. B. (2019). Identifikasi Anak Kesulitan Belajar Matematika (Diskalkulia) di Sekolah Dasar. In *Universitas Negeri Surabaya*. Universitas Negeri Surabaya.
3. Amka, & Mirnawati. (2020). Social participation of deaf students within inclusive higher education. *International Journal of Innovation, Creativity and Change*.
4. Areepattamannil, S., Cairns, D., & Dickson, M. (2020). Teacher-Directed Versus Inquiry-Based Science Instruction: Investigating Links to Adolescent Students' Science Dispositions Across 66 Countries. *Journal of Science Teacher Education*, *00*(00), 1–30. https://doi.org/10.1080/1046560X.2020.1753309
5. Arisandi, E. (2014). Meningkatkan Kemampuan Operasi Perkalian Untuk Anak Diskalkulia Melalui Metode Garismatika. *Jurnal Ilmiah Pendidikan Khusus*, *3*(September), 478–488.
6. Baker, S. K., Fien, H., & Baker, D. L. (2010). Robust Reading Instruction in the Early Grades: Conceptual and Practical Issues in the Integration and Evaluation of Tier 1 and Tier 2 Instructional Supports. *Focuson Exceptional Children*, *42*(3).
7. Bano, E. (2012). Ekaningsih Bano, 2012 Peningkatan Kemampuan Pemahaman Dan Penalaran Matematis Siswa SMA Melalui Pendekatan Metakognitif Berbantuan Autograph. In *Universitas Pendidikan Indonesia* (Issue 2007).

8. Batubara, R. (2018). penerapan metode demostrasi pada mata pelajaran ipa untuk meningkatkan prestasi belajar siswa sdn 054875 sei limbat kelas i tahun 2014/ 2015. *tabularasa*, *13*(2). https://doi.org/10.24114/jt.v13i2.4567
9. Butterworth, B. (2003). *Dyscalculia screener*. 74.
10. Chan, W. W. L., Au, T. K., & Tang, J. (2014). Strategic counting: A novel assessment of place-value understanding. *Learning and Instruction*, *29*, 78–94. https://doi.org/10.1016/j.learninstruc.2013.09.001
11. Doabler, C. T., Cary, M. S., Jungjohann, K., Clarke, B., Fien, H., Baker, S., Smolkowski, K., & Chard, D. (2012). Enhancing Core Mathematics Instruction for Students at Risk for Mathematics Disabilities. *TEACHING Exceptional Children*, *44*(4), 48–57. https://doi.org/10.1177/004005991204400405
12. Doabler, C. T., & Fien, H. (2013). Explicit Mathematics Instruction: What Teachers Can Do for Teaching Students With Mathematics Difficulties. *Intervention in School and Clinic*, *48*(5), 276–285. https://doi.org/10.1177/1053451212473151
13. Fuchs, L. S. (2005). Prevention research in mathematics: Improving outcomes, building identification models, and understanding disability. *Journal of Learning Disabilities*, *38*(4), 350–352. https://doi.org/10.1177/00222194050380041201
14. Gersten, R., Beckmann, S., Clarke, B., Foegen, A., Marsh, L., Star, J. R., & Witzel, B. (2009). Assisting Students Struggling with Mathematics:Response to Intervention (RtI) for elementary and middle schools. In *U.S Department of Education*. https://doi.org/10.1016/j.jhazmat.2011.04.026
15. Gersten, R., Chard, D. J., Jayanthi, M., Baker, S. K., Morphy, P., & Flojo, J. (2009). Mathematics instruction for students with learning disabilities: A meta-analysis of instructional components. *Review of Educational Research*, *79*(3), 1202–1242. https://doi.org/10.3102/0034654309334431
16. Hasibuan, M., Nelda, & Pricilia, G. M. (2019). *The effect of using explicit in struction strategy on students' listening comprehension of procedure text (a Study at the Eleventh Grade Students of SMK Negeri 1 Angkola Timur)*. *2*(1), 11–21.
17. Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, *77*(1), 81–112. https://doi.org/10.3102/003465430298487
18. Kusumawati, E., Elektronika, P., Surabaya, N., Kesehatan, P., & Malang, K. (2017). *instructions , comic strips and esp reading*. *September*, 141–151.
19. Lastaria, & Istiqlaliyah. (2019). Problematika Guru dalam Pembelajaran Matematika pada Pendidikan Inklusi. *Jurnal Hadratul Madaniyah*, *6*(I), 10–23.
20. Luke, A. (2014). On Explicit and Direct Instruction. *Australian Literacy Educator's Association*, 1–4.
21. Marzban, A., & Kamalian, K. (2013). Effects of Implicit Versus Explicit Vocabulary Instruction on Intermediate EFL Learners ' Vocabulary Knowledge ELT Voices – India. *ELT Voices*, *3*(6), 84–95.
22. Masroza, F. (2013). Prevalensi anak berkesulitan belajar di sekolah dasar se Kecamatan Pauh Padang. *Jurnal Ilmiah Pendidikan Khusus*, *1*(1), 215–227.
23. Matitaputty, C., Putri, R. I. I., & Hartono, Y. (2013). Pembelajaran Nilai Tempat Menggunakan Kegiatan Bertukar Biota Laut Di Kelas II Sekolah Dasar. *EDUMAT Jurnal Edukasi Matematika*, *7*(4).
24. Pasani, C. F., & Yulinda, R. (2020). Description of student characters in science learning. *International Journal of Psychosocial Rehabilitation*. https://doi.org/10.37200/IJPR/V24I5/PR201734
25. Prabawati, M. N. (2018). Analisis Kemampuan Literasi Matematik Mahasiswa Calon Guru Matematika. *Mosharafa: Jurnal Pendidikan Matematika*, *7*(1), 113–120. https://doi.org/10.31980/mosharafa.v7i1.347
26. Saryantono, B. (2013). Meningkatkan Kemampuan Pemecahan Masalah Matematis Peserta didik Kelas X SMA Adiguna Bandar Lampung Melalui Model Pembelajaran Investigasi Kelompok. *Prosiding FMIPA Universitas Lampung*, *22*, 61–67.
27. Satsangi, R., & Bouck, E. C. (2015). Using virtual manipulative instruction to teach the concepts of area and perimeter to secondary students with learning disabilities. *Learning Disability Quarterly*, *38*(3), 174–186. https://doi.org/10.1177/0731948714550101
28. Sood, S., & Jitendra, A. K. (2013). An Exploratory Study of a Number Sense Program to Develop Kindergarten Students' Number Proficiency. *Journal of Learning Disabilities*, *46*(4), 328–346. https://doi.org/10.1177/0022219411422380
29. Walle, J. A. Van De. (2003). *Elementary & Middle School Mathematics*.
30. Widodo, A. P. A., Hufad, A., Sunardi, & Nandiyanto, A. B. D. (2020a). Collaborative Teaching in Heat Transfer. *Journal of Engineering Science and Technology*, *special is*(the 4 AASEC 2019), 11–21.
31. Widodo, A. P. A., Hufad, A., Sunardi, & Nandiyanto, A. B. D. (2020b). Collaborative teaching in magnetic field lesson for students with deaf and hard of hearing (DHH). *International Journal of Psychosocial Rehabilitation*. https://doi.org/10.37200/IJPR/V24I8/PR280384
32. Wintergerst, A. C., DeCapua, A., & Verna, M. A. (2003). Conceptualizing learning style modalities for ESL/EFL students. *System*, *31*(1), 85–106. https://doi.org/10.1016/S0346-251X(02)00075-1

33. Yell, M. L., Shriner, J. G., & Katsiyannis, A. (2006). Individuals with disabilities education improvement act of 2004 and IDEA regulations of 2006: Implications for educators, administrators, and teacher trainers. *Focus on Exceptional Children*, *39*(1), 1–24. https://doi.org/10.17161/foec.v39i1.6824
34. Yusri, A. Y. (2017). Profil Pemahaman Konsep Nilai Tempat Ditinjau Dari Kemampuan Awal Matematika Pada Siswa Kelas III SDN 133 Takalala Soppeng Mathematical Skills In III Class Of 133 Thprimary School Of Takalala. *Jurnal Pendidikan Matematika*, *6*(1), 141–152.
35. Yuwono, I., Kamil, M., Rahardja, D., & Abdu, J. W. (2017). The Effect Of Guidance and Counseling Program on The Learning Processes of Visually Impaired High School Student. *International Journal Of Special Education*, *32*, 878.

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