



Improving T-Shirt Folding Skills in Students with Intellectual Disabilities using Explicit Instruction

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Abstract

This study aims to evaluate the effectiveness of the Explicit Instruction method in improving the ability to fold clothes in students with disabilities in class V of SLB Negeri Pematang Siantar. This study uses the Classroom Action Research approach which is carried out in two cycles. Each cycle consists of four meetings that include the planning, action, observation, and reflection stages. The research subjects consisted of four students with mild disabilities who had difficulty folding clothes independently. Data were collected through initial capability tests, post-cycle tests I and II, as well as observation and documentation. The results showed that the use of the Explicit Instruction method succeeded in improving students' ability to fold clothes, with the average score increasing from 50% in the initial test to 72.5% in the post-cycle II test, exceeding the Minimum Completeness Criterion of 65%. The implication of this study is that Explicit Instruction can be applied effectively to teach practical life skills to students with disabilities, increasing their independence in daily life.

Keywords

Explicit Instruction; Intellectual Disability; Student Ability

INTRODUCTION

Children with intellectual disabilities experience delays in intellectual development, which results in difficulties in adapting to societal norms and rules (Koolen et al., 2020). This inhibits their ability to meet basic needs such as self-care, communication, and carry out daily activities independently (Ku & Sung, 2022). These challenges vary depending on the individual's cognitive abilities, underlying conditions, and the support provided by the

surrounding environment. Children with intellectual disabilities need special attention in developing basic skills that increase independence (Ku & Rhodes, 2020).

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One of the important skills that children with intellectual disabilities must acquire is the ability to fold clothes. Folding clothes is a household chore that everyone must do, including children with intellectual disabilities. These skills are not only related to personal hygiene and neatness but also play an important role in helping children learn to manage daily life independently (Rajaraman et al., 2023). Mastering practical life skills, such as folding clothes, fostering a sense of achievement and self-sufficiency, contributes to the child's overall development. However, many children with intellectual disabilities struggle to master these skills. These difficulties are exacerbated by teaching methods that may not effectively address these challenges (Orr et al., 2021).

Explicit teaching methods are teaching approaches that provide clear, direct, and step-by-step instruction, allowing students to follow each step with ease (Matthews, 2024). Through this method, students with intellectual disabilities can gradually learn how to fold clothes with simple and understandable guidance. Explicit instruction emphasizes modeling, guided exercise, and immediate feedback, which helps students correct mistakes and improve their skills progressively (McElroy et al., 2024). This approach is anticipated to help students overcome the challenges they face in mastering complex tasks such as folding clothes. By offering a structured and predictable learning environment, explicit instruction can provide a clear path to learning and independence.

Previous research has shown that explicit teaching methods are effective in teaching practical skills, not only for students with intellectual disabilities but also for other students with special needs (Lee et al., 2020; Omar, 2025; Sulu et al., 2023). However, there has been little research on the application of explicit instruction in teaching simple everyday living skills, such as folding clothes, to students with intellectual disabilities. This research

fills a gap in the existing literature by applying explicit teaching methods to the skill of folding clothes, a field that has not been widely explored in the context of special education for children with intellectual disabilities.

The purpose of this classroom action study is to apply an explicit teaching method in teaching T-shirt folding skills to grade V students with intellectual disabilities at SLB Negeri Pematang Siantar, and to assess whether this method can improve students' ability to perform tasks independently. This research aims to contribute to the development of self-sufficiency programs at SLB and provide practical guidance for teachers on how to teach daily life skills to students with intellectual disabilities by using explicit instructional teaching methods into the special education curriculum.

METHOD

Research Design

This study follows the Classroom Action Research approach to enhance t-shirt folding skills in class V students with intellectual disabilities at Pematang Siantar State Special School. The research design is based on the (Kemmis et al., 2013) model, which involves a cyclical process of planning, action, observation, and reflection. Each cycle in this study consists of four meetings, where the steps of planning, action, observation, and reflection are continuously repeated to evaluate and improve the teaching process. The iterative nature of this model ensures that the methods are refined at each cycle based on observations and feedback. Teachers are involved as active collaborators in this study, serving both as facilitators of the learning process and as active researchers. This collaborative approach allows for the identification of issues in real-time and the modification of strategies to improve the students' learning outcomes (Kemmis et al., 2013).

Participants

The subjects of this study were four students with mild intellectual disabilities, aged approximately 13 years, who were enrolled in class V. The sample consisted of two boys and two girls. All participants faced difficulties in performing basic daily tasks, including t-shirt folding. A purposive sampling method was used to select these students, considering their specific challenges in acquiring practical life skills. The decision to focus on students

with mild intellectual disabilities was based on the belief that they would benefit from the structured learning environment provided by the Explicit Instruction method. This approach also allowed for a detailed examination of how such an instructional method could address gaps in students' skill development.

Data Collection

Data collection in this study employed a combination of observation, interviews, tests, and documentation to ensure comprehensive coverage of the students' learning experiences. Observations were made during each meeting to track changes in the students' abilities and behaviors, particularly their progress in folding t-shirts. The observation focused on how well students followed the steps involved in t-shirt folding and their level of independence in performing the task. Interviews were conducted with the students, teachers, and their parents to gather insights into their perceptions of the Explicit Instruction method and the overall learning process. These interviews helped to provide a more holistic understanding of the students' experiences and any barriers they encountered.

Tests were an integral part of the data collection process, specifically designed to assess students' understanding of the t-shirt folding steps. Three types of tests were used: oral tests, written tests, and performance-based tests. The oral and written tests evaluated students' knowledge of the folding process, while the performance-based tests assessed their ability to carry out the steps correctly and independently. In addition, documentation such as lesson plans, student records, and assessment results were collected to provide a record of the teaching process and to track the students' progress over time.

Instruments

The study utilized several assessment tools to measure the students' progress in mastering t-shirt folding skills. Rubrics were designed to evaluate key components of the task, including accuracy, neatness, and the ability to follow the folding steps independently. The rubric included detailed criteria that allowed the teachers to assess the students' performance consistently across each cycle. Likert scales were also used in the study, particularly for self-assessment and teacher assessment of students' confidence and skill in performing the task. These scales provided a way to quantify students' perceived competence in folding t-shirts and their engagement with the learning process.

Additionally, indicators for successful folding were developed, focusing on criteria such as folding accuracy, the ability to perform the task without assistance, and the demonstration of step-by-step independence in the process.

Data Analysis

Data analysis in this study involved both qualitative and quantitative methods. Qualitative analysis was conducted on the narrative data obtained from observations and interviews. The data was analyzed thematically to identify common patterns, obstacles, and areas for improvement in the students' ability to fold t-shirts. Thematic analysis allowed for the identification of recurring themes such as difficulties with specific steps in the process, instructional clarity, and students' level of engagement.

Quantitative analysis was used to evaluate the test results. Each student's performance in the oral, written, and performance-based tests was measured and compared to the minimum completeness criteria, which was set at a score of 65. The minimum completeness criteria was determined based on curriculum standards and the expected level of competence for students with intellectual disabilities in practical life skills. The percentage improvement in each student's performance from the pre-test to the post-test was calculated using the following formula:

$$\text{Percentage Improvement} = \left(\frac{\text{Post-test Score} - \text{Pre-test Score}}{\text{Maximum Possible Score}} \right) \times 100\%$$

The results of the tests were compared across cycles to assess the effectiveness of the Explicit Instruction method in improving t-shirt folding skills. By combining both qualitative and quantitative data, the study provides a comprehensive evaluation of the instructional method and its impact on students' skill development.

Validity and Reliability of Instruments

To ensure the validity and reliability of the assessment instruments, the following steps were taken: content validity was ensured by having experts in special education review the rubrics and assessment tools to confirm that they accurately measured the skills required for folding t-shirts. Construct validity was addressed by designing tests that reflect the essential skills involved in the t-shirt folding process. Reliability was assured through

the use of inter-rater reliability, where multiple teachers used the rubric to assess student performance, ensuring consistency in scoring. Additionally, test-retest reliability was evaluated by piloting the instruments before the study, ensuring that results remained stable over time.

RESULT

Based on the results of the research that has been conducted, the researcher described the observation data to see the effect of giving actions using the Explicit Instruction method on improving the ability to self-develop Folding T-shirts for students with disabilities in class V at Pematang Siantar State Extraordinary School. Data on the subject's initial ability was obtained from the results of the initial ability test, which was before the first cycle was carried out.

Table 1. Preliminary Ability Test Results on Folding Ability

No.	Subject	Total Value End of Test	Total Final Score Obtained	Percentage Achievements (%)
1.	MRA	100	47,5	47,5%
2.	MAW	100	55	55%
3.	FAC	100	50	50%
4.	QA	100	47,5	47,%

From the table above, it can be seen that the final score obtained by MRA in the initial ability test of folding a t-shirt was 47.5 with an achievement percentage of 47.5%, while MAW obtained a final score of 55 with an achievement percentage of 55%. Meanwhile, FAC obtained a final score of 50 with a percentage of 50%. Furthermore, QA obtained a final score of 47.5 with an achievement percentage of 47.5%. The score obtained by the two subjects has not reached the specified score of 65.

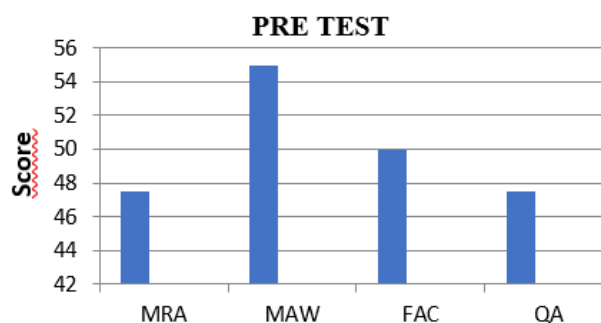


Figure 1. Initial Ability Test Results Graph on Folding Ability

From the figure 1, it can be seen that between the two subjects, MRA and QA have lower values than MAW and FAC. This can be seen from the scores obtained by MRA and QA of 47.5, while the MAW scores obtained are 55 and FAC scores obtained are 50. Based on these values, MRA and QA have the ability to fold t-shirts with less than one category. While MAW and FAC are included in the less category. This can be seen from the process of the activity and the results of the activity in the form of folds of the t-shirts that are still not neat. The four subjects still had difficulty folding each side of the t-shirt properly and neatly. The scores obtained by the four subjects in folding t-shirts also did not meet the minimum completeness criteria, which was 65.

Based on the results of the evaluation carried out, it can be seen that the results of the T-shirt folding ability test after the first cycle of action have increased compared to the results of the initial ability test. However, the increase has not reached the minimum completeness criterion set at 65. Data on the ability to fold the t-shirts of each subject in cycle I can be seen in the following table:

Table 2. Results of Cycle I Post-Action Test on Folding Ability

No. Subject	Initial Ability Test		Tests Pasca Cycle I Actions	
	Final Score	Achievements (%)	Final Score	Achievements (%)
1. MRA	47, 5	47,5%	57,5	57,5%
2. QA	47,5	47,5%	58	58%
3. MAW	55	55%	60	60%
4. FAC	50	50%	59	59%
Average		50%		58,62%

The results of the first cycle of post-action tests on the ability to fold t-shirts have been carried out by each subject, for more details can be seen in the figure below:

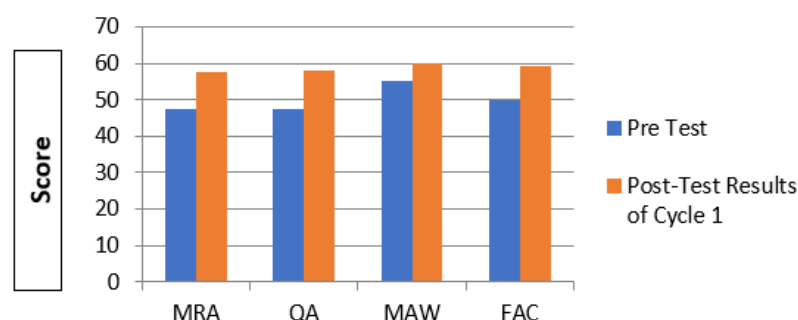


Figure 2. Graph of Cycle I Post-Action Test Results on Folding Ability

The figure 2 shows the results of the ability to fold t-shirts in students with intellectual disabilities after carrying out actions or learning using *the explicit instruction method*. The

score obtained by MRA in the initial ability test of 47.5 increased to 57.5 in the post-action test cycle I. Meanwhile, QA obtained a score of 47.5 in the initial ability test and increased to 58 in the post-action test cycle I. Meanwhile, MAW obtained a score of 55 in the initial ability test and increased to 60 in the post-action test of the cycle. Then FAC obtained a tilapia of 50 on the initial ability test and increased to 59 on the post-action test in cycle 1. The results of the Folding T-shirt ability test after the first cycle of action have increased compared to the results of the initial ability test. Although the four subjects experienced improvement, they did not obtain a score that was in accordance with the minimum completeness criterion of 65.

Based on the results of the evaluation carried out, it can be seen that the results of the T-shirt folding ability test that the subjects have done after the action cycle II have increased compared to the results of the initial ability test and the results of the post-action test of cycle I. Both subjects obtained a score that exceeded the specified success criteria, which was 65.

Table 3. Results of Cycle I Post-Action Test on Folding Ability

No	Subject	Ability Test Beginning		Tests Pasca Cycle II Actions	
		Value End	Achievements (%)	Value End	Achievements (%)
1.	MRA	47, 5	47,5%	67	67%
2.	QA	47,5	47,5%	67	67%
3	FAC	50	50%	70	70%
4	MAW	55	55%	70	70%
Average			52,5%		72,5%

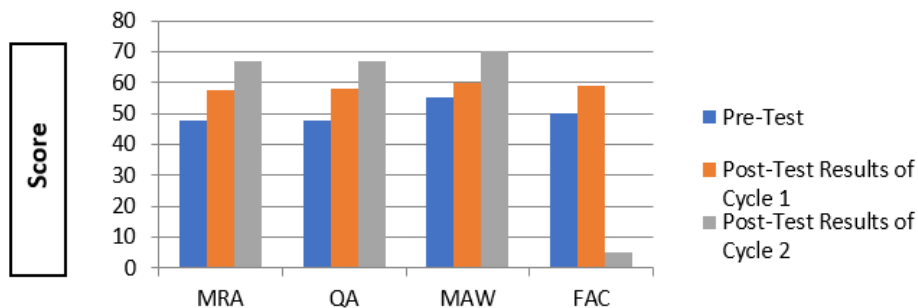
From the table above, it can be seen that both subjects have increased their ability to fold t-shirts. On the initial ability test, MRA obtained 47.5 and 67, respectively, for the post-action values of cycle II. Meanwhile, SF obtained a score of 47.5 for the initial ability test and 67 for the post-action value of cycle II. Then FAC obtained a score of 50 for the initial ability test and 70 for the cycle II post-action score while for MAW it obtained a score of 55 for the initial ability test and 70 for the cycle 2 post-action score. The scores obtained by MRA, QA, FAC and MAW have met the predetermined success of 65.

The final scores obtained by MRA 67, QA 67, MAW 70 and FAC 70 Thus, the Explicit Instruction method can help improve the ability to self-develop Folding T-shirts for students with disabilities in grade V at the Pematang Siantar State Special School. The score acquisition data obtained by MRA, QA, MAW and FAC subjects in the initial ability test, cycle I post-action test, and cycle II post-action test are presented in the table as follows:

Table 4. Folding Test Results

No	Subject	Ability Test Beginning		Post-Action Tests Cycle I		Tests Pasca Cycle II Actions	
		Value	Achievements (%)	Value	Achievements (%)	Value	Achievements (%)
1.	MRA	47,5	47,5%	57,5	57,5%	67	67%
2.	QA	47,5	47,5%	58	58%	67	67%
3.	MAW	55	55%	60	60%	70	70%
4.	FAC	50	50%	59	59%	70	70%
	Total		200		234,5		274
	Average		50%		58,6%		68,5%

The results of the second cycle of post-action tests on the ability to fold t-shirts (t-shirts) that have been carried out by each subject, for more details can be seen in the figure below:

**Figure 3.** Graph of Cycle II Post-Action Test Results on Folding Ability

The Explicit Instruction method is very suitable for teaching students about the ability to self-develop folding t-shirts. This is seen from the results of the performance test conducted by students. In the learning process, students are familiar enough with the instructions given by the teacher to practice the activity of folding t-shirts repeatedly and gradually so that students are easier to understand and understand.

DISCUSSION

The results of this study show that the application of the Explicit Instruction method has a positive impact on improving clothes folding skills in students with disabilities in class V of SLB Negeri Pematang Siantar. This method, which emphasizes clear, structured, and step-by-step teaching, is effective in addressing the cognitive challenges faced by students with disabilities (Hall-Mills & Marante, 2022).

Information Processing Theory provides a solid basis for explaining the challenges faced by students with disabilities (Arauf & Nurhayati, 2024), especially in tasks that involve multiple steps, such as folding clothes. This theory explains that learning involves coding, storing, and retrieving information, where students with disabilities often have difficulty processing information, organizing steps in the correct order, as well as remembering the procedures that have been learned. This difficulty can hinder their ability to complete tasks independently (Duncan et al., 2021). Explicit Instruction addresses this challenge by simplifying information and presenting tasks in clear and structured steps (Mathews & Cohen, 2022). This approach allows students to more easily process and store information, as well as correct errors through direct feedback, which is well suited to the cognitive needs of students with disabilities (Lambert & Tan, 2020).

In addition, Explicit Instruction is in line with the principles of task analysis, which breaks down complex skills into smaller, manageable components (Chen & Kalyuga, 2020). In this study, the task of folding clothes was broken down into specific steps, such as laying clothes on a flat surface, folding the left side, folding the sleeves, and flattening the edges of the clothes. This way, students can master each step gradually before moving on to the next. Task analysis ensures that each component of a skill is taught in detail and systematically, allowing students to develop skills gradually. The fit between Explicit Instruction and task analysis has been shown to be effective in helping students with disabilities, who require structured instruction and repetitive practice to understand and master skills (Lambert & Tan, 2020).

The results of this study are also in line with the findings of other studies that use the Explicit Instruction method for students with disabilities (Andrikos et al., 2024; V. Garcia et al., 2025). The Explicit Instruction method is more effective than traditional teaching methods in teaching life skills to students with special needs. However, this study expands the scope of the use of Explicit Instruction by applying it to a relatively simple but important daily life skill, namely folding clothes, which has not been widely researched before. This shows that this method is not only effective for academic or vocational skills, but also for basic life skills that increase the independence of students with disabilities (Amelia & Azizah, 2023).

However, although the results of this study are promising, there are some limitations that need to be considered. First, the small sample size, only four students from one class,

limited the generalization of the findings to a larger population. Second, the study did not include long-term assessments to measure the retention of learned skills, which is important for assessing the sustainability impact of these methods. Therefore, further research in different places with variations in students' backgrounds and teacher experiences is needed to gain a more comprehensive understanding of the effectiveness of Explicit Instruction in a broader context.

CONCLUSION

The Explicit Instruction method is effective in improving the ability of students with disabilities to fold clothes independently, with significant improvements in each teaching cycle. The implication of these findings is that Explicit Instruction can be a useful strategy in teaching practical life skills to students with special needs, by providing clear, structured, and gradual direction. Suggestions for future research are to expand the sample to improve the generalization of findings, explore the application of this method to other life skills, as well as conduct long-term studies to evaluate the retention of learned skills.

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