Research Article

Modelling Techniques of Limited Self-care Children with Special Needs: Case Study Research

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Abstract.

Education is an effort made by every individual, including children with special needs. Children with special needs tend to have unique characteristics but need to get an education and teaching that suits their needs. This need occurs in children with disabilities who have difficulty in doing self-help. The limitations of self-help, which tend to be assisted by people around them, require special attention so that children have the ability to take care of themselves. The purpose of this study was to identify how modeling technique interventions affect the self-reliance of students with special needs. A qualitative approach was used through observation, interviews, and psychological tests. The results obtained are that FMI tends to have intellectual disabilities and self-help is an intervention that can be done. The intervention was carried out with modeling techniques over five sessions in 15 days focussing on going to school. The results show that FMI has improved their understanding of self-help when it comes to going to school although they still require help and are unable to do so independently.

Keywords: children with special needs, modeling, self-help

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1. Introduction

Education is an effort made by individuals in planning the implementation of a learning atmosphere and learning process to develop the potential within themselves, including children with special needs. Children with special needs must also receive proper and quality education, including services in education, therapy and accessibility which are the rights of children with special needs [1]. Children with special needs are children with special characteristics shown by mental, emotional, and physical disabilities [2]. However, children with special needs also need to get education and teaching that suits their needs. Individuals with special needs have limited involvement in daily life. These activities are related to children's independence, ability to focus, and ability to learn, so children need to be involved in school and out-of-school activities with the aim

of developing competencies and skills, social relationships, physical and mental health, also well-being.

One of the problems related to children with special needs is an 11-year-old student of elementary special school called FMI. FMI is suspected having an intellectual disability. Many activities carried out by clients require assistance from people around her, especially her mother. FMI also had a difficulties in many aspect, such as academic and daily living like self-help. FMI had developmental setbacks that affect her self-help. One of the FMI's self-help difficulties is self-help in preparing to go to school, such as buttoning a uniform, wearing a skirt, using a tie, using a belt, using socks, using shoes, combing hair, preparing a bag neatly, and using a bag. During self-help, FMI is always assisted by people around her. The limitation of FMI's self-help is also reinforced by FMI's family environment, which tends to pamper and obey what she wants. Parents often feel impatient when FMI does it herself, so parents tend to get involved in FMI's self-help activities. When FMI is instructed to do self-help independently, FMI often complains and does not want to do it.

The problem of FMI's self-help has become a major complaint from both FMI's teachers and parents, especially because FMI still has difficulty in preparing herself to go to school, whereas in accordance with the developmental tasks of 11-year-old children, FMI should be able to be independent with her own situation without dependence on others so that children have confidence and confidence in themselves to do something with their abilities [3]. One of the developmental tasks in late childhood is personal independence so that children have demands to be able to choose, plan, and do work and activities without depending on their parents [4]. This developmental task is in contrast to FMI's self-help skills, which still depend on her parents for tasks and activities to fulfill her needs. The problem of self-help had by FMI is an important concern because FMI is a woman who will experience puberty, namely menstruation, so that provisions regarding self-help must be owned by FMI so that she is able to take care of herself.

Children in the future do not become a burden to the surrounding environment and reduce dependence on the assistance they usually receive in meeting their needs directly or indirectly,so children can be independent [5]. Therefore, the problem of limited self-help from FMI needs to be addressed further appropriately so that FMI tends to be adaptive in living daily life. The intervention carried out is by doing self-help through modeling techniques. The formulation of the problem in this study is how to describe the intervention of modeling techniques in the independence of students with

special needs. The purpose of this study is to determine the description of modeling technique interventions in the independence of students with special needs.

2. Literature Review

Intellectual or intelligence is a verbal and nonverbal ability consisting of memory, abstraction, logic, perception, insight, vocabulary, information processing, problem solving, and visual motor skills [6]. Disability is a condition that is able to explain a dysfunction objectively that can be measured or seen due to loss or abnormalities in body parts or individual organs [6]. Intellectual disability according to DSM V-TR is a disorder that appears during development consisting of deficits in intellectual and adaptive functions in conceptual, social, and practical domains [7]. Intellectual disability is a new term from the previous term mental retardation. Intellectual disability is a condition that inhibits the growth and development of children as a major and distinctive process and becomes an important growth and development [8]. Intellectual disability can occur due to disturbances in the prenatal, perinatal, and postnatal phases, as well as a decrease in overall intellectual function that occurs during development and is associated with impaired social adaptation. Based on the definitions of the experts, it can be concluded that intellectual disability is a disability that occurs during development due to limitations in intellectual function and adaptation disorders that occur conceptually, socially, and practically.

There are three diagnostic criteria in DSM V-TR, first criteria is intellectual functioning deficits including reasoning, problem solving, planning, abstract thinking, judgment, academic learning, and learning from experience confirmed by clinical assessment and standardized and individualized intelligence testing. Second criteria is adaptive functioning deficits that result in individuals failing to meet developmental and sociocultural standards for personal independence and social responsibility. In the absence of ongoing support, adaptive deficits are likely to limit one or more functions of daily living activities such as communication, social participation, and independent living in various environments such as home, school, workplace, and community. And the last third criteria is the onset of intellectual and adaptive deficits during the developmental period [7].

The factors causing intellectual disability are multifactorial, which can be caused by genetic factors (chromosomal and gene abnormalities) and non-genetic factors (socioeconomic conditions, prenatal, perinatal, and postnatal history) [9]. The prenatal

period is related to the period before the baby is born (in the womb) where the problems are often vitamin deficiencies, psychological disorders of the mother, and abnormalities in the fetus. The perinatal period is related to the birth process which tends to be imperfect until the child experiences mental retardation. The postnatal period is related to the state of the baby after birth, where the baby has experienced steps, heat, and others [10].

The causative factors of intellectual disabilities can come from hereditary and environmental factors [10]. Hereditary factors include chromosomal abnormalities can be a contributing factor to intellectual disability due to changes in gene sequences. In addition, gene abnormalities can occur during immunization where the factor is not always visible from the outside but still remains at the genomic level. The second cause is metabolic and nutritional disorders, nutrition is an important factor in a person's development, especially in relation to the development of cells in the brain. Failure to meet one's own nutritional needs can result in physical and mental impairment. Infection and poisoning during pregnancy can also contribute to intellectual disabilities. The next cause is trauma and radioactive substances. Trauma arising in the brain when a baby is born or when exposed to radioactive radiation during pregnancy can be a contributing factor to intellectual disability, where this factor often occurs due to difficult births so that individuals need assistive tools. Errors in x-ray radiation while the baby is in the womb can also be a contributing factor. Birth problems could be another cause of intellectual disabilities. The birth of a baby with hypoxia will make the baby suffer from brain damage, seizures, and shortness of breath. In addition, the damage can be caused by the trauma of a difficult birth. The last cause is environmental factors where negative experiences and failures in interaction during the developmental period. Parents' educational background is also related to developmental problems, where parents' lack of awareness about the importance of early education and lack of knowledge to provide positive stimulation during the child's development [10].

The implementation of self-help is related to the process of receiving information, storing information, and getting the information back. Methods that can be used in self-help include Prompting, this method is concerned with prompting the child to perform the desired behavior through words, gestures, and hand assistance. Second one is modeling, this method relates to getting children to do something by modeling the behavior demonstrated, which can be in the form of a video or in person. Third one is role playing and this method invites children to do something with the instructions

that are delivered. Role playing begins to invite children to have self-help skills. The last method is learning center, where children can do their own tasks independently [11].

Modeling technique as a technique in behavior therapy with the aim of forming new behaviors adaptively to clients or strengthening behaviors that have been formed by showing clients about model behavior both physically and audio video so that clients can observe these behaviors with the involvement of cognitive and affective processes so that behavior can be imitated by clients [12]. The basic principle in the modeling technique is the process of learning by direct or indirect experience through observation of individual behavior and its consequences, so that abilities can be obtained by observing and imitating the behavior of existing models.

The modeling technique has the aim of changing maladaptive behavior into adaptive or strengthening and maintaining existing adaptive behavior with a model that will be observed and imitated by the client. The session stages in modeling according to Habsara consist of 4 sessions but all of these number of sessions used for intervention adjusts the complexity of the client's behavior to be changed. First session is building rapport and assessment, this aims to identify existing problems in the client and continue with an explanation of the intervention process using modeling techniques based on the behavior changes desired by the client. Second session is pre-intervention, this session is carried out to determine the modeling technique that will be used through providing education to clients about modeling techniques. Third one implementation of intervention, the implementation of the intervention is carried out by carrying out the agreed technique so that the sessions in this technique can be repeated many times until the expected behavior appears or is formed. The last one is evaluation and termination [12].

3. Method

The method used is a qualitative approach with a case study method to explore information about FMI's self-help. This study was conducted on 4^{th} grade female student the age of 11 years. FMI is the 3^{rd} children who currently lives in Surabaya with her mother and older sister. The process of the assessment carried out are observation of behavior at school and at home, in-depth interviews with teachers, older sisters, and FMI's mother, and psychological tests to identify FMI's intelligence level and category, identify FMI's learning abilities, behavioral, emotional, and social problems, and identify FMI's social maturity and independence. Data analysis technique used descriptive analysis

to explain the content of the data objectively, systematically, and clearly. Furthermore, researchers intervene in accordance with the self-help problems experienced by FMI, namely with modeling techniques in accordance with the baseline of observed behavior, there are buttoning clothes, wearing skirts, using ties, using belts, using socks, using shoes, combing hair, arranging bags and using bags. The stages in the intervention refer to Habsara's theory, namely building rapport and assessment, pre-intervention, intervention implementation, and evaluation and termination [12]. The intervention was conducted for 5 sessions in 15 days, after that practitioners follow up to see the progress of the client's self-help. Follow up retrieved by FMI's mother and teacher.

TABLE 1: Intervention Design.

Session	Day	Activities	Targets
1	1	Building rapport and assessment	Get agreement between teachers, clients, and parents on the interventions provided
2	2-5	Pre-intervention	FMI can perform self-help exercises with the established baseline, FMI has a concept in self-help, FMI has the desire trying to do self-help exercises
3	6-13	Intervention implementation	FMI has progress in doing self-help in accordance with the baseline that has been set
4	14	Evaluation and termination	Evaluate FMI's progress of self-help to parents and teachers
5	15	Follow up	FMI has improved in self-help

4. Result and Discussion

FMI has a level of intelligence in the below-average category which can be seen in the results of FMI's learning ability which can be equated with the age of 4 years and 4 months. The learning ability that is classified as not equivalent to her current age is supported by FMI who tends to complain when given tasks that she finds difficult and her lack of patience that makes FMI irritable. This can be seen in FMI's current ability to write but there are some letters missing when writing because FMI is less focused and less attentive to something that requires instruction in carrying out the task. FMI has learning abilities equivalent to grade 3. FMI has various fine motor skills but has difficulty in imitating existing writing. This ability is not well utilized because FMI has cognitive impairment that affects his thinking ability. FMI has also experienced fever and seizures (step) so that there are obstacles that arise, such as physical developmental

obstacles that make him need help from walls or poles in walking. FMI also tends to get frustrated easily so she lacks patience. FMI also tends to rush easily.

FMI is a person who has emotions that tend to explode, so FMI has a tendency to have problems in the social environment due to his aggressiveness which is supported by FMI's social maturity which is equivalent to the age of 6 years and 8 months. FMI is often very focused on her gadget, so she whines when the gadget is taken back. Whining behavior that appears in FMI's personality makes FMI lack independence in herself because FMI has a tendency to have a low interest in learning, this makes FMI when learning new things such as learning independence often complains and whines until it requires the help of surrounding parties in the process. FMI has difficulty in doing self-help. FMI tends to do self-help without looking at neatness and cleanliness. FMI is able to hurt and harm others when invited to do self-help according to instructions, especially FMI easily forgets when the taught self-help material has been given because it is not repeated at home, making FMI easy to communicate when reluctant to do something according to instructions.

FMI has a good ability to socialize with others. FMI has the ability to get closer to new people. This makes FMI have the courage to answer questions from others, but FMI does not have a feeling of worry so FMI does not realize when the actions taken can harm others. This is supported by FMI's level of intelligence with a category below average, so that special assistance is needed. FMI tends to focus when playing gadgets, so FMI very focused when given a phone and upset when her phone is asked back. FMI's social maturity which is below her chronological age makes FMI easily hurt others. FMI also finds it difficult to study independently at home because she focuses on playing gadgets and learning materials given at school are not repeated independently at home. FMI lives with her mother and brother at home so the relationship between FMI and her family tends to be good, but FMI's family tends to spoil her so FMI lacks independence. FMI needs help in doing simple activities and when given instructions that are difficult, FMI will complain and use a high tone. FMI is able to communicate what she finds difficult but she gets angry and bored easily due to her low interest in learning.

FMI is someone who easily gets along with others and is active when learning takes place. FMI is also able to follow instructions given by practitioners. However, FMI has difficulties in fine motor skills and difficulty focusing on something. It can be seen from the results of the examination that FMI has a learning ability equivalent to the age of 4 years and 4 months which is not in accordance with his current chronological age,

which is 11 years old. The results of the child behavior checklist test also showed that FMI had problems concentrating and difficulty focusing. FMI also lacked independence. FMI tends to complete independence tasks quickly without paying attention to details and neatness. This is also supported by the results of FMI's social maturity which is equivalent to the age of 6 years and 8 months which is below his chronological age. Cognitively, FMI has a level of intelligence with a category below average which makes individuals lead to intellectual disabilities due to limitations in intellectual function and adaptive behavior in the prenatal, perinatal, and postnatal phases. FMI is an individual who has problems after the birth period which can be seen when FMI has experienced seizures (steps) once. This is in accordance with the diagnostic criteria based on **DSM V-TR (2022),** namely the existence of deficits in intellectual function and lack of adaptive function so that FMI experiences failure in personal independence and social responsibility.

When looking at the condition of FMI, FMI tends to experience intellectual disability in the severe category. This is because according to DSM V-TR, conceptually, FMI has difficulty in learning academic skills such as reading, writing, arithmetic, time, and money [7]. FMI has the ability to learn these things but FMI needs time and instruction and focus to do so. Socially, FMI tends to lack social maturity as shown by the VSMS test results with an age of 6 years and 8 months. FMI still has the ability to communicate, have conversations, and speak with others but FMI has difficulty in regulating emotions and behavior according to his age. When viewed practically, individuals have the ability to be practical but tend to need support to perform daily tasks. Self-care is an intervention that can be done to FMI because FMI still has problems in taking care of herself. Self-help that can be done based on Handayani's opinion is related to self-help in skills for activities of daily living related to one's own abilities through methods in self-help [9]. Self-help aims to actualize and develop a person's ability to become independent. The baseline that appears in the client is not being able to button a shirt, not being able to use a skirt, not being able to use a tie, not being able to use a belt, not being able to use socks, not being able to use shoes properly, not being able to comb hair, not being able to organize a bag neatly, and not being able to use a bag properly.

The interventions that have been carried out show that FMI has an increase in the concept of self-help when going to school. This is in accordance with the opinion of Hafid et al who have implemented self-help interventions through modeling techniques in individuals with intellectual disabilities showing positive changes, namely children have better and independent abilities in performing daily tasks [13]. FMI has progressed to do self-help but still does not have the initiative to do it alone, so FMI needs instructions from

Table 2: FMI's diagnostic criteria based on DSM-V TR.

Diagnostic Criteria	Diagnose Supporting Factor
Deficits in intellectual functioning include: 1) Reasoning 2) Problem solving 3) Planning 4) Abstract thinking 5) Judgment 6) Academic learning 7) Experiential learning confirmed by clinical judgment 8) Standardized and individualized intelligence tests	1) FMI has a below average category of intelligence 2) FMI has learning ability equivalent to the age of 4 years 4 months 3) FMI has writing that tends to be large and italicized, there are some letters that are not written in one word 4) FMI has difficulty focusing on something 5) FMI has less interest in learning
Adaptive deficits exist such that: 1) The individual fails to meet developmental and sociocultural standards for personal independence and social responsibility 2) The individual tends to limit one or more functions of daily living activities such as communication, social participation, and independent living in a variety of home, school, work, and community settings	1) FMI lacks of independence 2) FMI has difficulty doing self-help 3) Socially, FMI is able to socialize at school and at home but does not have social responsibility because FMI only interacts with others 4) The test results show that FMI has problems in her social environment because she is less able to follow the existing social system 5) There is aggressive and whining behavior in FMI 6) FMI's social maturity and independence is equivalent to the age of 6 years and 8 months.
The onset of intellectual and adaptive deficits during development	FMI has met the criteria for intellectual and adaptive deficits during development as indicated by the above supporting factors

the surrounding environment (practitioners, teachers, and parents). The problem that tends to occur in the implementation of FMI's intervention is FMI's mood condition so that the implementation of the intervention needs variation. Variations made by practitioners in increasing FMI's interest are by recording FMI's self-help process, providing watches based on YouTube regarding self-help and providing an explanation of the introduction of FMI's self-help concept. In addition, practitioners also invite their friends to do self-help together so that FMI does not feel alone. FMI needs intense instruction and supervision when doing self-help.

Overall, the self-help intervention process carried out for FMI was effective because there was an increase in the concept of understanding and its use in accordance with the existing baseline, but in its implementation, FMI several times seemed not in the mood that occurred because the intervention process was carried out every day, so practitioners provided variations to optimize the intervention carried out by recording her while doing self-help, providing independence videos from YouTube, and inviting her friends together to do self-help so that FMI did not feel alone. Variations made in self-help are effective for the intervention process carried out to FMI.

Table 3: Intervention Result.

Behavior Indicator	Before	After
Buttoning clothes	FMI has not been able to button her own clothes so that the concept of buttoning clothes has not been obtained	FMI has understood the concept of buttoning clothes. In 1 round, FMI able to button 5 buttons without being worn and able to button 2 out of 5 buttons with being worn in 1 round (especially the top button of the shirt)
Wearing skirts	FMI has not been able to wear a skirt by herself. She still needs help from others in using the skirt	FMI has understood how to use the skirt and able to hook the skirt without wearing it, able to do it in 5 rounds, and each round takes 5 minutes
Using ties	FMI was able to use the tie by herself but did not touch the collar (the tie was only on neck). In addition, FMI has difficulty opening and closing the collar of the shirt	FMI is able to use the tie to touch the collar, but in closing and opening the collar, FMI is able to open and close the right and left sides only. The back of the shirt collar is not closed perfectly
Using belts	When the belt is inserted into the skirt hole with the skirt off, FMI is able to do it well	FMI was able to insert the belt into the front skirt hole, but sometimes still had difficulty inserting the belt into the back skirt hole. FMI was able to insert the belt into all the holes of the skirt in 1 day session only
Using socks	FMI is able to use socks but the ankles are still used on the front (upside down)	FMI is able to recognize the concept of socks on the ankle, but occasionally still wrong in use
Using shoes	FMI is able to wear shoes but has not introduced the concept of right and left shoe parts	FMI is able to wear shoes according to the shoe part
Combing hair	FMI is familiar with the concept of combing hair, but the comb is only attached to the hair	FMI able to use a comb with the hair inserted into the comb, but the process of using the comb still does not see the neatness of the hair
Arranging bags	FMI only puts the items into the bag so that the bag is not neat	FMI is able to put the items into the bag neatly, but occasionally does not pay attention to the concept of putting items from the largest to the smallest (takes freely), so she needs further direction from the practitioner in organizing the bag
Using bags	FMI often uses the bag by carrying on hand (not placed on the shoulder). The bag strap tends to be twisted too	FMI is able to use the bag with a neat strap, although sometimes is still confused putting her hand in the bag

Individuals with intellectual disabilities have a very large dependency so they must be guided and monitored continuously [14]. This happens to FMI who depends a lot on the environment from around when doing daily activities, so that self-help can make her more confident in her activities because she has the ability to take care of herself. On the other hand, FMI lacks interest in learning at home so she needs continued guidance from parents to do self-help at home. One of the activities that support her

interest in self-help is providing methods that are interesting and easily understood by children [15]. Variations made by practitioners in intervention include inviting clients to watch videos from YouTube and these variations can help FMI's self-help process more effectively.

The results of follow-up after 1 week of intervention showed progress in self-help, especially when at school willing to follow the instructions of the class teacher. Client has understood the concept of self-help but needs further instruction and direction in its implementation. Clients tend to have difficulty doing self-help at home because she has lack interest and distracted by gadgets so that client prefer to play gadgets. Parents can practice the self-help that has been done by giving more time for preparation when going to school so that self-help can be done independently.

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