



JURNAL ASESMEN DAN INTERVENSI ANAK BERKEBUTUHAN KHUSUS

Jurnal homepage: <https://ejournal.upi.edu/index.php/jassi/index>



Study Description of Children Motoric Assessment for Students with Intelektual Disabilities as a Predictor of Self-Help Development Abilities

Anita Sumirat^{1,*}, Asep Rudi Irawan²

¹Sekolah Luar Biasa Darul Hidayah, Indonesia

² School of Human Sciences, University of Tsukuba, Japan

Correspondence: E-mail: anitasumirat@gmail.com

ABSTRACTS

This research is motivated by a student with intellectual disabilities who have difficulty in the ability to develop themselves in wearing and folding clothes. This study will have an impact on activities of daily life. The purpose of this study was to develop a self-development program in improving motor skills in students with intellectual disabilities. The research subjects were three 9-year-old students with intellectual disabilities who had difficulties in self-development skills. The research method used is qualitative using descriptive analysis method. The results showed that the three students were able to achieve fine motor and gross motor indicators completely. The results of this study are self-development programs to wear and fold clothes in improving the motor skills of the student with intellectual disabilities. The results of the implementation test showed a change in the child's objective condition, an increase in motor skills. With the right and effective self-development program, it is hoped that it can help students with intellectual disabilities in their daily lives.

ARTICLE INFO

Article History:

Received 02 Aug 2021

Revised 21 Sep 2021

Accepted 02 Oct 2021

Available online 12 Oct 2021

Keyword:

Motor assessment,
Self-development skills,
Students with intellectual
disabilities.

1. INTRODUCTION

The definition of a student with intellectual disabilities is very diverse and complex. In this study, a student with intellectual disabilities are children who have low mental or intellectual intelligence disorders, where the intelligence of these children is below the average of other normal children, so they experience difficulties in communication, academic achievement, and social skills in [Basuni \(2012\)](#). Education for the student with intellectual disabilities cannot be separated from the developmental aspects that affect it, one of which is on the motor aspect, both gross motor and fine motor. The movement at the stage of development should be influenced by gross motion and fine motion. Examples of gross movements that can be observed in jumping, throwing, jumping, and catching activities are basic movements that children should have mastered. Where the gross motor is the basis of every movement activity of the human body, and mastery of gross motor is the basis for developing fine motor skills. Gross motor activities will stimulate fine motor development. Every child can reach an optimal stage of development if all aspects of development get the right stimulus as well as on the motor aspect (fine motor and gross motor). The role of parents is very important in stimulating aspects of child development. The development of fine motor skills in children is said to be late when viewed from the age of the child, where the age that should be the child is already able to develop new skills, but the child does not show progress ([Hakim, 2016](#)). Motor ability is one of the developments that can be measured so that the achievement of each student can be better observed. Assessment is one way to find out the initial abilities that exist in children as a reference in the preparation of learning programs. Along with that Lerner (1988) stated that assessment is the process of collecting data or information in making a decision related to what students learn. Assessment is a series of processes that function to assess a person's abilities or barriers to be used as a basis for children's needs. In addition, compiling the instrument must be based on the child's developmental tasks so that it can be used as a guide to help teachers, education practitioners, students, and parents in discovering the fine motor skills that students have ([Mastiani, 2016](#)).

One example of research that has been done by [Mutia and Iswari \(2020\)](#) states that the fine motor skills of the student with intellectual disabilities by positively arranging Lego have increased, the smaller the overlap percentage, the better the influence of the intervention on behavior change. So that the data from the simulation results of the fine motor assessment can be used for initial writing readiness, identify any obstacles or difficulties experienced, and provide an overview of the learning needs needed at this time individually. Therefore, the benefits of the assessment are very influential on the development of other students in the future ([Mutia and Iswari 2020](#)).

In helping students with intellectual disabilities to be able to adapt to the environment around them, it is necessary to make an effort, namely self-development education. The term Activity of Daily Living (ADL) or activities of daily life in the world of education for children with special needs is known as self-development which refers to a personal activity that has an impact and is related to human relationships. This is closely related to personal conditions. Therefore, it is necessary to do stimulation and training to build concepts in order to build individuals apart from being personal as well as social beings. In the curriculum for the Special School of Self-Development (self-help) this is contained in the subjects of the Special Program. The special program for students with intellectual disabilities is called Self Development. With special guidance given to students with intellectual disabilities, they can develop the abilities they still have so that the dependence of students with intellectual disabilities be reduced or eliminated. The Special Program for Self-Development consists of seven aspects, firstly, self-

care skills, self-care, self-help and then communication skills, socializing, daily living skills and filling spare time (Munawaroh, 2019).

The effect of forwarding chaining method towards self-help ability for wearing buttoned clothes In preparing the assessment, the teacher can use the steps for preparing an assessment instrument that can be adopted. According to Mercer and Mercer (1988), there are several steps that teachers must take in the preparation of informal assessment instruments, namely:

- (i) Understanding and determining the scope/sequence of skills to be assessed. Teachers should have a comprehensive understanding of the field to be assessed, so that assessment will be meaningful. To determine the scope and sequence of skills being assessed. Example Kurikulum 2013 or KTSP 2006, teaching materials/packages books, references related to the assessed fields, or modifications/combinations of the three.
- (ii) Determine what behavior will be assessed, meaning that the teacher/assessor chooses one component that is prioritized from all components/fields/aspects to be assessed.
- (iii) Administering assessment tools/instruments. The teacher arranges a grid of assessment instruments from the chosen field. This grid aims to make it easier to make questions or tasks that must be done by children.
- (iv) Recording achievements/assessment results.
- (v) Determine specific learning objectives both long-term and short-term (Mastiani, 2016). Specifically, it should be for students with intellectual disabilities in grade VII (Zain *et al.*, 2017) in self-development ability wearing clothes through shaping techniques, developing aspects of independence (Wuryani, 2011), decorating themselves (Basuni, 2012), self-development skills (Raharjo, 2016), eating without the help of others (Ardiyanto, 2014).

But, until now, there has been no research that discusses the motoric assessment of a student with intellectual disabilities as a predictor of self-development abilities. Therefore, this study wants to describe the extent to which the self-development achievements of a student with intellectual disabilities are viewed from the perspective of motor development.

This study aims to determine the condition of a student with intellectual disabilities, in the activities of wearing and folding clothes which are included in the ability to develop themselves. This is motivated by the fact that students with intellectual disabilities have intellectual disabilities that have an impact on their daily life activities. The development of self-development programs is closely related to motor skills in students with intellectual disabilities. The research subjects were 9-year-old students with intellectual disabilities who had difficulty in self-development abilities. Novelties of this study are self-development activities that are carried out in a combination of wearing clothes and folding clothes.

2. METHODS

2.1. Subject and Location Research

This study focuses on teaching self-development ability to students with intellectual disabilities. The participants are their student's schools (SLB) in West Java, Indonesia. Student information about several aspects of ability, demographic information, and basic knowledge skills (motor skills, communication, concentration, language, and academic) is obtained from observations and interviews with teachers. This data was then used to develop research instruments. Analysis of all the information obtained and identified using option (can and can not).

2.2 Research procedure

Figure 1 shows study focuses on motor skills in improving self-development ability to wear and fold clothes in children with a student with intellectual disabilities. The research flow carried out includes :



Figure 1. Schematic diagram of the research procedure.

2.3 Activity Procedure

(i) Planning Stages

At this stage, the data analysis is carried out, including collecting data in the form of field notes, recordings, interviews, and observations. Data reduction, namely summarizing, choosing the main factors, focusing on the important things, looking for themes and patterns, and discarding unnecessary ones.

(ii) Analysis Indicator

In this research, there are three activities carried out, namely literature studies, field studies, and assessments. A literature study on a literature review that is relevant to the research problems discussed is related to motor assessment in improving the self-development abilities of a student with intellectual disabilities. This literature study aims to formulate concepts about the Self-Development program. This field study aims to collect initial data on research problems through observations and interviews on a student with intellectual disabilities with motor skills barriers, as well as the handling that has been done by parents in helping children improve their self-development skills. The author in the field study uses observation sheets and interview guidelines.

The next activity collects data on the objective condition of motor skills mastered by children. Data collection techniques in this study using observation and interviews. Then the researchers conducted an assessment of child development based on the results of interviews with parents and milestones for the development of children aged 1-9 years according to the age of the subject.

Data from the assessment results of children were analyzed into profiles of children which included the potential, obstacles, and needs of children related to motor skills in improving self-development abilities. The data from the assessment became the basis for researchers in developing the Self-Development program in improving motor skills.

(iii) Arrange the product

In this study, the design of data acquisition was carried out at stage 1. The design of the Self Development program was prepared by researchers by looking at the data profiles from observations, interviews, and assessments. However, in this motor skills program, there is a Self Development based on the results of the assessment. The self-development program designed for children is the self-development program design in improving motor skills.

(iv) Product development

Validation of the program is done through expert judgment. The expert judgment consists of one expert lecturer who is competent in his field and two special education teachers. The

validation process of program results certainly requires validation guidelines that will be useful as a guide in the validation process to produce a good program. The results of the validation of the self-development program for students with intellectual disabilities in improving motor skills are used in the implementation of training and interventions. After the program is validated by experts, the results of the program can get suggestions and inputs to complete the program. In stage 3, the presentation of data is in the form of descriptive narrative results obtained from the results of the implementation of the program that has been made, carried out by observation during the activity, as well as interviews with parents regarding the development of the student with intellectual disabilities.

(v) Implementasi test

The implementation of the activities in stage 4 carried out are as follows: So that students with intellectual disabilities can carry out activities of wearing and folding clothes, it is necessary to habituate and repeat activities so that they are useful and can be applied, the researchers conducted an implementation test. This test, implementation is carried out to find out whether the material in the formulation of the self-development program can be implemented by students at home to improve the skills of wearing and folding clothes. The implementation test is carried out as a form of testing the conclusions of the program made. To find out the results of the implementation test, the researchers conducted observations and interviews.

(vi) Evaluation

Stage 5 (evaluation) is carried out by analyzing the results of the analysis of program implementation as the final data obtained in this study. So that at this stage a product has been produced in the form of the Self Development Program for a student with intellectual disabilities in wearing and folding clothes.

2.4. Research Instrumen

In our research activities, we collect data through observation and tests. We made an instrument in the form of an observation questionnaire, and 10 questions to determine the activeness of participants in the learning process and to determine the level of students' understanding of the material being taught. The assessment criteria are given to each student who can carry out the activities of wearing and folding clothes correctly. Described in the initial conditions up to the achievement with information can do and can not.

3. RESULTS AND DISCUSSION

3.1. Student Demography

Figure 2 describes the initial conditions of students both academic and non-academic. In **Table 1**, we discuss 3 students, namely: NW, AF, AQ. The age of the students being tested is 9 years. The subjects in this study were a student with intellectual disabilities, had problems in aspects of adaptive behavior, intelligence levels and occurred at developmental age. NW students have poor motor skills, communication is quite good, students' language is good and academics are not good, especially in the aspect of perception. AF students have poor motor skills, communication and language are quite good, and academics are not good, especially in the fine motor aspect, students' hands are still stiff. QP students have poor motor skills, communication and language are quite good, and academics are not good, especially in the aspect of concentration that is still not able to focus.

Table 1. Student ability condition.

| No | Nama Siswa | Motor Skill | Communicate | Concentration | Language | Academic |
|----|------------|-------------|-------------|---------------|----------|----------|
| 1. | NW | 1 | 2 | 2 | 3 | 1 |
| 2. | AF | 1 | 2 | 2 | 2 | 1 |
| 3. | QP | 2 | 2 | 1 | 3 | 1 |

3.2. Learning Implementation

Learning activities begin with initial activities, namely starting with greetings, and conditioning students to be ready to receive lessons. Then it is continued by praying before studying, checking student attendance, doing apperception, by asking the time of departure to school while showing the numbers and conveying what will be learned today. Before using clothes media (school uniform). The researcher directly shows the clothes that will be demonstrated. Next, the researcher called one of the students to hold the clothes and mention the parts of the clothes, students are expected to understand the function of the parts of the clothes. Then the researcher tried the clothes on to the students, the students gradually began to insert one part of the right arm into the right sleeve, then insert the left arm into the left sleeve shirt after being seen wearing the shirt, the students brought the buttons and buttonholes together parallelly and inserted the buttons. into the hole.

After the students put on the clothes, the researcher told the students to take off the clothes with the steps that were carried out (exemplifying the step backward activity is wearing clothes). Start by removing the button from the hole, pulling the left hand out of the left sleeve, and pulling the right hand out from the right sleeve. Then the researcher took the clothes from the students, and the students were asked to sit back. The researcher showed the clothes and put the clothes on the table. The front of the shirt is turned and folded in the middle of the shirt, folded on the right and left symmetrically with the same composition. And one of the students was appointed to do the folding of clothes as exemplified.

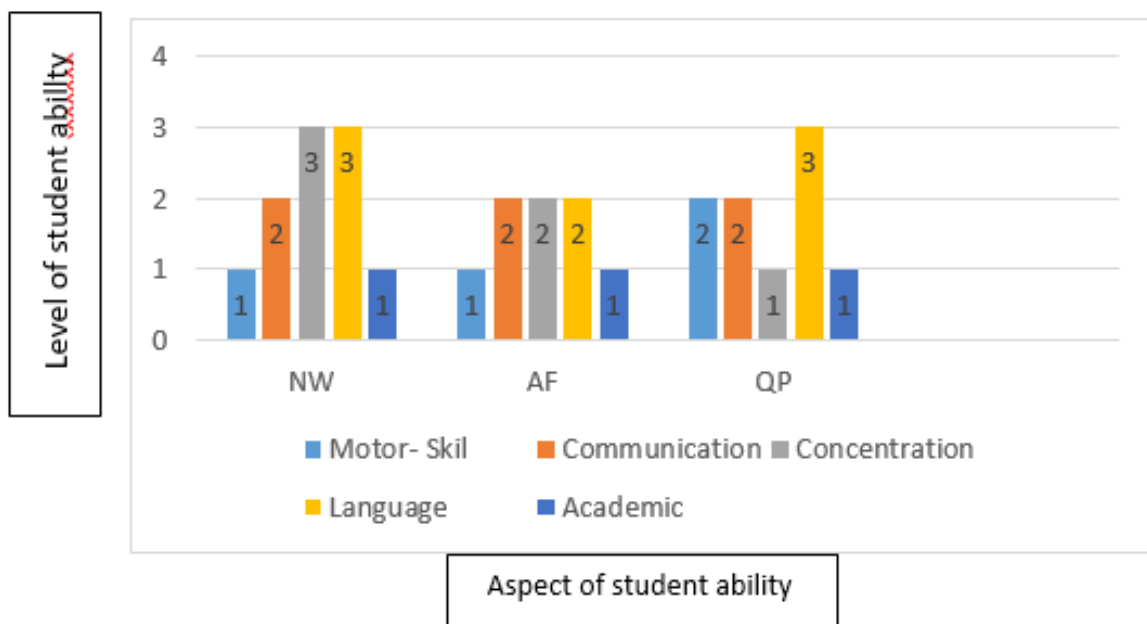


Figure 2. Explain the demographics of students consisting of: motor skills, communication, concentration, language, and academic.

The condition of NW students can be seen in the insertion of the sleeves, they still need help, because they always come off, and in the buttoning section, they can insert buttons into the holes and are quite neat. The activity of folding clothes can be done well, folding the right and left arms into the middle of the clothes can be done parallel, and folding the bottom up to the top of the clothes, NW folds neatly.

The condition of the AF students in the sleeve inserting section was able, and inserting buttons into the holes still had to be helped, because of the stiff and shaking hands. The activity of folding clothes can be done by AF with assistance, folding the right and left arms to the center of the clothes can't do it parallel and folding the bottom up to the top of the clothes, AF can fold well. T

he condition of the QP students in the sleeve inserting section still has to be helped, and inserting the buttons into the holes has to be helped because the concentration of inserting buttons into the holes is still not focused. The activity of folding clothes can be done by QP with help, folding the right and left arms into the middle of the clothes, but not being able to do parallel and folding the bottom to the top of the clothes, QP can fold well. Before learning ends, students and teachers conclude what they have learned today and evaluate learning. Furthermore, students get assignments to do at home related to the ability to develop themselves in terms of wearing and folding clothes, both shirts, and t-shirts. The researcher closed the learning activities and prayed together to end the learning.

3.2. Results of the Initial Conditions and Achievements In Each Lesson

The overall motor skills of students can be seen from their achievements, but this can also be seen in the students' initial conditions. **Table 3** describes the results of the student learning process carried out for 3 meetings using shirt media, in the process of wearing and folding clothes. NW students in the initial conditions enter the right and left sleeves, they still can't, while in the final learning activities by doing motor activities (gross and fine) on the learning outcomes of NW students can do well. Motor activities (gross and fine) can improve students' abilities in self-development skills in this case wearing and folding clothes. Students seem to understand the material taught better by doing self-development activities to wear and fold clothes. Where the use of appropriate media and the conditions of the students concerned will make it easier for students to understand the learning material (Maryanti et al, 2021). AF students with the initial condition of inserting buttons into the hole still cannot do it because the condition of their left hand is stiff and sometimes likes to tremble, so the process of inserting buttons into the hole still needs help, by doing fine motor activities (repeatedly, and being trained to insert buttons into the hole). modified hole) AF students in the conditions of achievement can perform well. Concrete and interesting media can increase the level of student knowledge, especially for mentally retarded students or students with intelligence barriers (Maryanti et al., 2021). QP students with initial conditions have not been able to fold their clothes because they do not focus on the objects they are holding, therefore they still need help in carrying out these activities. QP in performing fine motor activities is repeated and continuously, and trained to insert buttons into modified holes, shows the results of QP students in achievement conditions can do well.

The following table increases the results of the initial conditions and student achievements;

Table 3. Improving learning outcomes from initial conditions to student achievements.

| No | Stages of Wearing and Folding Clothes | NW Deskripsi | | Student AF Deskripsi | | QP Deskripsi | |
|-----|---|-------------------|--------------|----------------------|--------------|-------------------|--------------|
| | | Initial Condition | Achievements | Initial Condition | Achievements | Initial Condition | Achievements |
| 1 | Insert the right sleeve | Can not | Can | Can | Can | Can not | Can |
| 2 | Insert the left sleeve | Can not | Can | Can | Can | Can not | Can |
| 3 | Insert the button into the hole | Can | Can | Can not | Can | Can not | Can |
| 4 | Unbutton | Can | Can | Can not | Can | Can not | Can |
| 5 | Pulling the left arm out of the left sleeve | Can | Can | Can not | Can | Can not | Can |
| 6 | Pulling the right arm out of the right sleeve | Can | Can | Can not | Can | Can not | Can |
| 7. | Putting the front of the shirt on the table | Can | Can | Can | Can | Can | Can |
| 8. | Fold the right sleeve to the middle | Can | Can | Can not | Can | Can not | Can |
| 9 | Fold the left sleeve to the middle | Can | Can | Can not | Can | Can not | Can |
| 10. | Fold the bottom of the shirt up. | Can | Can | Can | Can | Can | Can |

3.3. Analysis of Research Activity Results

The problem in this study was to determine the condition of a student with intellectual disabilities, in the activities of wearing and folding clothes which were included in the ability to develop themselves, which were carried out in 3 meetings. The results obtained were an increase in enthusiasm, motivation, participation, and learning outcomes in wearing and folding clothes. The achievements obtained by NW in the initial conditions of entering the right and left sleeves still cannot, while in the final learning activities by doing motor activities (gross and fine) on the learning outcomes of NW students can do well. The achievements obtained by AF with the initial conditions of inserting buttons into the hole are still unable to do because the condition of his left hand is stiff and sometimes likes to tremble, so the process of inserting buttons into the hole still needs help, by performing fine motor activities

(repeatedly, and being trained to insert buttons). into the modified hole) AF students in the performance state can perform well. And QP students with initial conditions have not been able to fold clothes because they do not focus on the object being held, therefore they still need help in carrying out these activities QP students in performing fine motor activities are repeated and continuously, and are trained to insert buttons into modified holes, showing the results of QP students in achievement conditions can do well. Based on the explanation, it can be seen that the success achieved is not solely based on the media that fosters enthusiasm, interest, and motivation of students in learning, but can not be separated from the input and suggestions from the observer who supports it.

Based on the data analysis a self-development program in improving motor skills in students with intellectual disabilities. Learning development self-help about put on clothes and fold clothes with the method. Study description and adapted specifically to the need of students with special needs.

4. CONCLUSION

Learning self-help about put on clothes and fold clothes can be taught to students with special needs, especially a student with intellectual disabilities. In the teaching process, learning methods and media must be adapted to the needs of students. The results of the implementation test showed a change in the child's objective condition, an increase in motor skills. With the right and effective self-development program, it is hoped that it can help students with intellectual disabilities in their daily lives.

5. ACKNOWLEDGMENT

We acknowledged Sekolah Luar Biasa (SLB) Darul Hidayah. This study was supported by Kantor Jurnal dan Publikasi (KJP) - Universitas Pendidikan Indonesia (UPI), Departemen Pendidikan Khusus - UPI, dan Dinas Pendidikan Provinsi Jawa Barat bidang Pendidikan Khusus dan Layanan Khusus (PKLK). We also thank to Dr.Eng. Asep Bayu Dani Nandiyanto, Rina Maryanti, M.Pd, Nissa Nur Azizah, Dwi Fitria Al Husaeni, and Dwi Novia Al Husaeni. We also acknowledged Deden Syaiful Hidayat, M.Pd. (Kepala bidang PKLK), Dr.Eng. Asep Bayu Dani Nandiyanto (Kepala Kantor, KJP UPI), Dr. Yuyus Suherman (Ketua Departemen, Departemen Pendidikan Khusus, UPI), Rina Maryanti, M.Pd. (Assistant Professor, Departemen Pendidikan Khusus, UPI), Muktiarni, M.Pd. (Assistant Professor, Departemen Pendidikan Tata Boga, UPI), Ahmad Bukhori Muslim (Director, Directorate of International Affairs, UPI), Nissa Nur Azizah, Dwi Fitria Al Husaeni, and Dwi Novia Al Husaeni. This program is also supported by Program Pengabdian Masyarakat and Bangdos UPI

6. AUTHOR'S NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

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