



Preparation of assessment instruments for the ability to learn upper hand lower hand techniques to protect themselves in blind children at skh ath-thohariyyah 01 pandeglang banten

Euis Nani Mulyati

Islamic University of Nusantara Bandung
Email: euisnanimulyati@uninus.ac.id

Ari Lutfia Sari

Islamic University of Nusantara Bandung
Email: arilutfia@uninus.ac.id

Astri Rizqiatunnisya

Islamic University of Nusantara Bandung
Email: astririzqiatunnisya02@gmail.com

Nufusul Mustaidah

Islamic University of Nusantara Bandung
Email: nufusulmustaidah@uninus.ac.id

Reynetha Arientama

Islamic University of Nusantara Bandung
Email: reynethaariantama@uninus.ac.id

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Abstract

Blind is someone who experiences visual impairments that have an impact on difficulty interacting with their environment. Blind people experience by a person cause several problems, which is in doing mobility orientation, blind people are afraid to move and move places. This is due to blind people's concerns about unwanted things, such as hitting hard objects in front of them, fear of getting lost, and falling into potholes on the road. Mobility-oriented skills can help and make it easier for blind people to move and move around. One technique used in mobility-oriented is the upper hand lower hand technique which can be used to protect yourself. This study is based on the problem of the absence of upper hand lower hand technique assessment instruments to determine the ability, disability, and learning needs of self-protection for blind children. This research was carried

out to compile assessment instruments for upper hand lower hand techniques through collaborative collaboration with teachers. To achieve this goal, descriptive methods with qualitative approaches are used through observation, interviews, documentation studies, FGDs and validation. After going through the validation process, a trial was carried out and the results showed that the instrument can be used recommended to teachers to implement the upper hand lower hand technique assessment instrument to protect themselves visually impaired in oriented and mobility.

Keywords

Assessment instrument, Upper Hand Lower Hand, Self-protection, blind children

Introduction

Education is a process of preparing children to reach maturity. Therefore, education is carried out consciously and systematically and continuously to mature children by providing various knowledge, instilling good life norms and attitudes, and training various skills. The government requires all Indonesians to receive education, including children with special needs. In accordance with Law of the Republic of Indonesia No. 20 of 2003 concerning the National Education System article 32 paragraph (1) which states that "Special education is education for students who have a level of difficulty in following the learning process due to physical, emotional, mental, social, and/or special intelligence and talent potential". One of the groups that need special education is blind children.

According to the Indonesian Blind Association (PERTUNI) in Supiadi (2004: 12) that: "Blind people are those who have no vision at all (total blindness) to those who still have residual vision but are unable to use their vision to read ordinary writing measuring 12 points in normal light conditions even though assisted by glasses (less aware)".

The visual impairment experienced by a person poses several problems. One of them is in doing mobility orientation, blind people are afraid to move and shift places. This is due to blind people's concerns about unwanted things, such as hitting hard objects in front of them, fear of getting lost, and falling into potholes on the road. Therefore, a special mobility orientation program is needed for the visually impaired, especially in self-protection techniques so that the blind can be safe when moving around familiar places.

Orientation is the use of senses that still function in determining the position of oneself, while mobility is the ability and ability of a blind person to move or shift places easily, quickly, precisely and safely. So mobility orientation is the ability to move from one place to another using senses that are still functioning quickly, precisely and safely. Therefore, blind people must have a good mastery of self-concept as well as techniques in orientation and mobility. Mobility orientation is divided into several parts, one of which is self-protection techniques that are

needed in protecting yourself when traveling in a familiar environment so as not to experience accidents on body parts.

Good learning services must be oriented to the learning abilities and needs of each child, so that assessment becomes a must for every teacher, both before, process, and at the end of learning. Assessment is a process of collecting information about child development which aims to determine the abilities, disabilities, and learning needs of each child.

Rosenberg (in Mastiani, 2018: 46) states that "Assessment is a process of collecting information that will be used to make considerations and decisions related to children's learning". Assessment in this study is the process of finding information or data about the abilities and disabilities of children in self-protection techniques, orientation and mobility.

The result of the initial study in October 2022 at SKh Ath-Thohariyyah 01 Pandeglang Banten obtained information that mobility orientation learning has long been carried out, including material on Upper Hand Lower Hand. Mobility-oriented teachers in these institutions do not conduct assessments before designing and implementing learning. Based on this, researchers are interested in conducting research entitled "Preparation of Assessment Instruments For The Ability to Learn Upper Hand Lower Hand Techniques to Protect Themselves in Blind Children at SKh Ath-Thohariyyah 01 Pandeglang Banten".

Literature review

The Concept of the Blind

Blind is a general term used for the condition of a person who experiences impairments or obstacles in his sense of vision. According to Hadi (2005: 36) that: "Blind people are an inseparable unit which means there is a loss caused by damage or disruption of the eye organ". Meanwhile, according to Thomson (2012: 122), blind people are individuals who experience total blindness or partial blindness. Technically, a blind person is someone who has a visual acuity of 20/200 or smaller in the eye that is best after being corrected by using glasses, or his visual acuity is better than 20/200 but his field of view narrows in such a way that it forms an angle of view no greater than 20 degrees (Somantri, 2006: 66).

Based on the above understanding, it can be said that blind people are individuals who have damage to their vision or both eyes cannot function properly. Because of these visual abnormalities or damages, a blind person experiences limitations in obtaining information, which can hinder his learning achievement.

As a result of visual impairment, children experience obstacles in cognitive and conceptual development, obstacles to motor development and mobility and also obstacles to social development. Social development is very important for blind children to adjust to their environment. However, if blind children are unable to adjust, there will be social mockery and even blind children will withdraw from the environment.

The classification of blind children according to Hadi (2005: 46) is as follows:

1. Blind
2. Totally blind are those who cannot see at all, either dark or light.
3. Having residual vision are those who cannot tell the difference between dark and light.
4. *Low Vision*
5. Light perception, when it can only distinguish light and dark.
6. Light projection, able to know the change in light and can determine the light source.
7. Tunnel vision or central vision, is the vision of the visually impaired so that when looking at objects can only be seen in the middle.
8. Peripheral vision or side vision, so that the vision of objects is only visible at the edges.
9. Spotting vision, observation of objects there are certain parts that are not visible.

Assessment instruments

According to McLoughlin & Lewis: (1986), assessment is a systematic process in collecting data on a child that serves to see the abilities and difficulties faced by a person at that time, as material to determine what is really needed.

Assessment is the application and use of various tools to obtain a set of information about student learning outcomes and achievements. According to Rosenberg (in Mastiani, 2018: 46) states that "Assessment is a process of collecting information that will be used to make considerations and decisions related to children's learning". Assessment in this study is the process of finding information or data about the abilities and disabilities of children in self-protection techniques when doing orientation and mobility.

Based on this understanding, it can be concluded that the assessment instrument is a process of collecting data or information systematically and comprehensively about children's abilities related to learning. In this case, assessment instruments are used to determine the child's ability to perform the upper hand lower hand technique to protect themselves.

Orientation and Mobility

Orientation is the use of senses that still function in determining self-position, while mobility is the ability and ability of a blind person to move or shift places easily, quickly, precisely and safely.

Mobility is the ability, readiness, and ease of moving and moving places. Mobility also means the ability to move and move within an environment. Because mobility is physical movement and displacement, physical readiness largely determines the skills of blind people in mobility. Regarding this matter, it is explained in a guide published by the Directorate General of Social Services and

Rehabilitation (2002: 3) that: "Orientation is the process of utilizing or using the senses that still function to determine the position of oneself and its relationship with the surrounding environment, while Mobility is the ability, readiness, ease to move from one place to another desired place with easy, safe, effective, flexible and safe".

Orientation and Mobility are important to be mastered by blind people, because with these knowledge and skills blind people can live independently so that in turn there is no need to depend on others in life in society and their environment. Orientation and mobility in this study is the use of senses that still function to move when performing self-protection techniques in blind children.

Self-protection techniques

Self-protection techniques are needed when traveling in familiar spaces or environments so as not to have accidents on body parts. According to Rahardja (2010: 159) that: "Self-protective technique is a technique given to blind students so that students are able to walk efficiently and independently, especially indoors in familiar environments and provide protection to students without using mobility aids". It is evident that every blind person must have the ability to master this technique in order to be able to orient and mobility safely and comfortably.

Upper hand lower hand technique

Adapting Hosni's explanation (2007: 217-222) that in Mobility Oriented there are several techniques that need to be mastered by blind people in order to walk safely and efficiently without hitting objects around, including self-protective techniques which include:

Upper hand technique. This technique provides protection to the chest and head of the visually impaired from the collision of objects or obstacles in front of him. This technique can work effectively in familiar places, but at certain times it can also be used in unfamiliar places.

The technique of crossing the upper body (upper hand) is a walking technique by crossing the arms forward with shoulder level to protect the upper body both head and chest. This technique is used so that the head and chest do not hit objects in front when walking such as walls, doors, or stairs.

Implementation

- 1) Stand with your right or left hand raised forward, your elbows form an angle of approximately 120 degrees, your palms face forward, and your fingertips are parallel to your shoulders.
- 2) Walk slowly forward with care not to bump into the object in front of him.

Lower hand technique. This technique provides protection to the lower body, especially the abdomen and groin from possible collisions with objects or obstacles and obstacles that are in front of it and are as high as the abdomen. In addition, this technique can only work well if the blind child is in a familiar environment.

This technique is used to protect the lower body and groin from the impact of objects in front of the body as protection between the lower body.

Implementation:

- 1) Standing with your right or left hand raised forward, elbows forming an angle of approximately 120 degrees, palms facing and covering the lower body.
 - 2) Walk slowly forward with care not to bump into the object in front of him.
- Some things that need to be considered in doing the upper hand lower hand technique are by looking at the difficulties and abilities of children, with that the teacher can see the needs of children so that learning can run systematically.

Research methods

In every research, methods and techniques are always needed so that research can achieve goals.

The method used in this study was chosen based on the formulation of the problem to be studied. Thus, the relevant method used is the descriptive method through a qualitative approach. According to Arikunto (2010: 3), descriptive research is "research intended to investigate circumstances, conditions or other things that have been mentioned, the results of which are presented in the form of research reports." Meanwhile, according to Sugiyono (2010: 29) that "Descriptive method is a method used to describe or analyze a research result but not used to make broader conclusions."

The choice of this descriptive method is because the data obtained is the current situation experienced in the field and the problem under study will be more detailed if presented systematically by developing theories and combining them with the topic of the problem, and can get a real picture of the preparation of assessment instruments.

This research uses a qualitative approach, which is an approach that presents directly the nature of the relationship between research and teachers to solve problems and the goals to be achieved. Regarding this matter, Sukmadinata (2011: 73) explained that the qualitative approach is: "an approach to describe and analyze phenomena, events, social activities, attitudes, beliefs, perceptions, thoughts of people individually and in groups." From these quotes, this study uses a qualitative approach because researchers reveal the data as it is. Therefore, in this study researchers went to the field to observe directly and obtain data and collaborate with teachers to compile about the teacher's ability to compile assessment instruments for the ability of upper hand lower hands to protect themselves in blind children at SKh Ath-Thohariyyah 01 Pandeglang Banten.

Research Results

Based on the data obtained through various data collection techniques, the following results were obtained:

The ability to learn upper hand lower hand techniques to protect themselves in blind children at SKh Ath-Thohariyyah 01 Pandeglang Banten

The ability to learn upper hand lower hand techniques at SKh Ath-Thohariyyah 01 needs to be mastered by blind children in order to protect themselves independently.

As age goes by and independence of blind children in SKh Ath-Thohariyyah 01 requires a habit to perform the upper hand lower hand technique. In the ability of this upper hand lower hand technique, the ability of blind children varies, it can be seen that there are children who are capable and some are unable to do the upper hand lower hand technique. The results of research conducted by researchers on two children aimed to determine the child's ability and difficulty in performing the upper hand lower hand technique, can be analyzed as follows:

1. Children who are able to perform the ability of the upper hand lower hand technique can show the upper and lower body parts, make up the upper hand and lower hand techniques, for example: placing the right palm forward, placing the left palm under the abdomen and groin.
2. Children who have not been able to perform the ability of the upper hand lower hand technique still mistakenly show the upper and lower body parts, still stiff to move the limbs, such as: raising the hand to the front of the face, placing the hand to the lower abdomen and groin because there is little help from the teacher.

Activities carried out by teachers to obtain information/data about the ability of blind children in the upper hand lower hand technique

Teachers do not have assessment instruments to determine the learning abilities and needs of blind children. The teacher immediately designs the program and implements the learning in a way that all children are trained to move the limbs and prepare themselves to perform the upper hand lower hand technique. Things that are trained efforts of blind children can carry out independence activities efficiently, among others: the posture of blind children must look flexible without stiffness, sturdy body, not hunched, steps are not dragged and do not depend on alert people.

Preparation of assessment instruments for the ability of upper hand lower hand techniques to protect themselves in blind children at SKh Ath-Thohariyyah 01 Pandeglang Banten

In the preparation of assessment instruments, upper hand lower hand techniques to protect themselves so that blind children can carry out independence activities, a program that is friendly and in accordance with the abilities and needs of children is needed. The program should be supported by adequate assessment

results. Given this, it is necessary to arrange assessment instruments so that the learning program is in accordance with the ability of each child.

In the process of preparing assessment instruments, researchers collaborate with teachers through Focus Group Discussion (FGD) activities. This assessment instrument is made more detailed according to the abilities and needs of blind children, which contains several components such as: competencies, indicators, and assessment criteria. The assessment instrument is made more specific according to the needs of the child. The results are as shown in the table as follows:

Table 1 orientation and mobility development

Competence	Indicators
Protect Yourself	
1.1. Travel with self-protection techniques in a school setting	1.1.1 Performing the upper hand crossing technique
	1.1.2 Performing the Lower Hand Technique

Table 2: assessment instrument of self-protection ability through Upper Hand Lower Hand Technique

Self-protection techniques	Indicators	Judging Criteria			Ket.
		C	AA	I	
Upper hand technique	Stand tall				
	Shows upper body parts				
	Show right hand				
	Show the front of the face				
	Move your right hand				
	Raise your right hand				
	Place your right palm forward				
	Place the back of your right hand against the front of your face				
Lower hand technique	Stand tall				
	Showing the lower body				
	Show left hand				
	Shows the lower abdomen and groin				
	Move your left hand				
	Raise your left hand				
	Place the palm of the left hand to the front of the abdomen and base				
	Place the back of the left hand to the back of the abdomen and base				
Independent Walking Movement	Moving your feet				
	Knowing which is the left foot and the right foot				

Self-protection techniques	Indicators	Judging Criteria			Ket.
		C	AA	I	
	Raising the right foot				
	Raising the left foot				
	Move your left and right feet				
	Moving limbs from one foot to the other				
	Step left foot				
	Step right foot				
	Stand tall				
	Know which is right and left hand				
	Move your left hand				
	Moving the right hand				
	Raise your right hand to the front of your face				
	Raise your left hand to the front of the peurt and groin				
	Walking forward				
	Move autonomously				
	Knowing directions				
	Know right, left, forward and backward				

Description: C= Capabl
 AA= Assisted Able
 I= Incapable

Validation results

Validators from 2 (two) different schools, namely SKh. Mathla'ul Anwar and SKh Bahari responded and gave positive responses that the assessment instruments prepared by researchers and teachers were quite effective and detailed, so they were suitable for use. The first validator recommends that assessment activities are not carried out within a certain time but can be carried out according to the needs of children. While the second validator recommends that the upper hand lower hand technique assessment instrument can be used as an effort to improve self-protection ability. In addition, to maximize the ability of blind children it is necessary to explain the technique in more detail and more clearly.

Trial results

The trial of the upper hand lower hand technique assessment instrument to protect themselves in blind children at SKh Ath-Thohariyyah 01 Pandeglang Banten

showed that the assessment instrument was quite effective in use. In the implementation of the assessment, blind children are still accompanied and trained in independence by teachers in habituating to carry out these techniques.

Based on the results of the trial, it can be said that the assessment instrument of the ability to perform the upper hand lower hand technique is feasible and can be used.

Conclusions, implications, and recommendations

Conclusion

Based on the results of the research as stated above, several conclusions were obtained as follows:

1. Generally, blind children at SKh Ath-Thohariyyah 01 Pandeglang Banten can take part in learning upper hand lower hand techniques, although there is one child who has difficulties so that the child must still be accompanied and trained by the teacher in habituating to perform the technique.
2. The teacher does not conduct an assessment because he does not have an instrument for it, so to find out the child's ability to learn the upper hand lower hand technique, the teacher immediately carries out the learning.
3. Collaborative collaboration among researchers and teachers through Focus Group Discussion (FGD) activities, resulting in a set of assessment instruments for learning ability of upper hand lower hand techniques.
4. Assessment instruments validated to teachers in two different schools show that the assessment instruments prepared by researchers and teachers are feasible and usable.
5. Tests conducted on blind children at SKh Ath-Thohariyyah 01 Pandeglang Banten showed that the details of the assessment instrument can be understood by children. Thus the instrument can be used by teachers.

Implication

A session in the learning of blind children is very important as a basis for making decisions to determine learning that is in accordance with the abilities and learning needs of each child. This has implications for related parties as follows:

1. Policy holders, in this case the Banten Provincial Education Office, need to continuously conduct coaching and training to improve the competence of teachers, especially in the skills of compiling instruments and carry out assessments.
2. Schools, need to conduct coaching and refreshment for teachers to get used to conducting assessments before designing and implementing lessons.
3. Teachers always continue to improve competition regarding the preparation of instruments and are skilled in carrying them out. Thus, this can make it easier for teachers to design programs and carry out learning according to

the abilities and learning needs of each child so that learning takes place properly. effective and efficient.

Recommendations

Based on the conclusions and implications as stated above, the researcher submitted several recommendations in the hope that they would be taken into consideration in improving teacher skills in compiling assessment instruments so that they could compile teaching materials that were in accordance with the characteristics and learning needs of blind children. Related to the preparation of instruments for learning ability to learn upper hand lower hand techniques for blind children, the following are recommended:

1. School principals should strive to improve teachers' qualifications and competencies in understanding, structuring and conducting assessments. It is important to provide in schools reading materials (books) for teachers related to ways of compiling assessment instruments in accordance with the characteristics and learning needs of students
2. Teachers should continue to make efforts in providing training to students according to their abilities and needs. This will help ensure the safety and comfort of visually impaired children throughout the school environment. The upper hand technique takes time for blind children to learn and understand. Therefore, it is important for teachers to be patient and provide appropriate support to children during the learning process. In practice, teachers should anticipate and take immediate action if a situation becomes dangerous.
3. For future researchers who are interested in conducting studies on the use of various upper hand lower hand techniques for blind learners, it is recommended to conduct research with wider subjects and areas, diverse subjects, and more complex research methods and techniques.

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