PalArch's Journal of Archaeology of Egypt / Egyptology

## LEARNING ACTIVITIES MOBILITY ORIENTATION TOWARDS SOCIAL SKILLS IN VISUAL IMPAIRMENT CHILDREN AGED 9-10 YEARS

Dede Idawati<sup>1\*</sup>, Siti Masitoh<sup>2</sup>, Bachtiar S. Bachri<sup>3</sup>

<sup>1,2,3</sup>Master of Education Technology, State University of Surabaya

\*Correspondence Email: <sup>1</sup>dedeidawati16070996006@mhs.unesa.ac.id

Dede Idawati, Siti Masitoh, Bachtiar S. Bachri. Learning Activities Mobility Orientation Towards Social Skills In Visual Impairment Children Aged 9-10 Years-- Palarch's Journal Of Archaeology Of Egypt/Egyptology 17(4), 2008-2025. ISSN 1567-214x

Keywords: Learning Activities, Mobility Orientation, Single Subject Research (Ssr), Design Multiple Baseline (Mb), Social Skills Of Blind Children.

#### ABSTRACT

One of the problems found in blind children is self-adjustment in a new environment. This is indicated by the low social skills of blind children in the school, they do not want to be separated from their parents, and refuses to cooperate with their classmates. To increase the selfconfidence of children with visual impairments in developing their social skills, a learning strategy is needed in accordance with the characteristics of blind children at the age of their calendar. Blind children needed the self-confidence to develop their social skills. Mobility orientation learning was a learning strategy that aimed to introduce the environment. This study is aimed to improve the social skills of transitional age blind children aged 9-10 years. This study used a single subject research method (SSR) with multiple baseline design (MB). The study subjects consisted of 3 blind children aged 9-10 years. Experiments in this study were conducted during 14 sessions, participants in old 6 baseline sessions and 8 session interventions; old participant II baseline 8 sessions and interaction 6 sessions; participant III has 6 baseline sessions and 8 session interventions. The results of the study indicate that the application of learning activities Mobility Orientation improves the social skills of blind children of the transition aged 9-10 years. It showed that there was an increase in blind children's social skills and independence in carrying out daily activities.

#### **INTRODUCTION**

The inability to see is a major obstacle for blind children to get visual information about the environment. This constraint is very critical for the learning process because information is received from other senses; namely hearing, touch and taste which cannot provide an overall pictures and information through sight (Ferrell 2006; Hill and Blasch 2010). The lack of information received not only affects aspects of learning, but the development of social skills and blind children behavior(Salleh and Zainal 2018).

Young people with visual impairment attend high school with high levels, but these people have low employment rates. In this study, the factors related to postschool work were investigated with a nationally representative sample of young people with visual impairment (Cmar 2015). Language is a means of communication, mediator from individuals and groups to improve their thinking for transmit feelings and desires expressed in the form of sounds/signs of the symbol with the basic means of hearing. While talking is describe the part of language that becomes an important requirement for humans in everyday life (Trimailani, Armaini, and Damri 2015).

Vision is a blessing that is very important in daily life, and his disability is an obstacle in getting important information to live a normal daily life. The Visual inability which is prevents a person from carrying out routine tasks of daily life. One problem that makes blind people face disabilities is to move smoothly and independently from one place to another. This is a major problem experienced by blind people in their daily lives, especially in the new environments. Orientation training and mobility (O&M) teaches the blind people to move independently and confidently in the community by utilizing the certain skills and making full that use of other senses along with the help of some equipment such as practices and mobility devices. This equipment is considered to be an organized and planned teaching system that has been used for more than 50 years to help visually impaired people to settle comfortably and effectively (Malik, Abd Manaf, et al. 2018).

The concepts and methodologies are highlight the orientation and mobility (O&M) practices in the expanded core curriculum (ECC) for blind students. The O&M practice and independence are important, and a major component of the core curriculum developed for blind students. The O&M practices are limited by schools by O&M experts to facilitate and accommodate blind students for better independence (Malik, Manaf, et al. 2018).

Mobility is the capacity or facility of body movement, a movement has two components, one of them is mental orientation and physical mobilization. The mental orientation is defined as the ability of a person to recognize his environment and temporal or spatial relationship with himself, and with motion as the movement of an organism from one place to another through its organic mechanism (Lowenfeld 1981).

Blind children needs to know some field features and instructions which help them. Blind children must already have a body image, knows the cardinal direction well and also must have the ability to read maps or floor plans arising skillfully. This is supported by (Kephart 1960)stated "is among those who place primary importance on the emergence of motor skills. He believes that the neurological system matures first in the motor area and that area becomes functional before the perceptual system is ready; also that the areas of motor activity and perception are then both operating before cognitive association develops".

## Implementation of orientation and mobility

To implement the orientation and mobility must integrated as a unity which needed by blind people, confirmed by (Rahardja 2012) Raharja in Sudarti (2015). The ability to move from one place to another by using all the senses that still exist to determine the position of a person against important objects around him both temporally and spatially.

Based on the principle above, so the knowledge aspect needs to make it easier for the blind to develop their abilities in everyday life whose main focus is on this orientation are grouped into 6 components(Hosni 2013), there are: 1. Land mark It is all objects, objects or sensory stimulation (smells, sounds, temperature or certain tactual clues that are constant (fixed) and known, easy to find (already known and fixed location) in the environment. which has certain characteristics that can be distinguished from other locations. 2. Clues are an auditory stimulus (sound/voice) tactual stimulation, odor, temperature, kinesthetic, visual stimulation which including the senses and immediately can be turned into clues to establish a position or a direction line (the principle of orientation and mobility of the blind).3. Numbering System Curriculum Design is a pattern of arrangement of the number and sequence of spaces/buildings in a building or in a complex. As the numbering system is known in 2 types, namely in space (indoor numbering system), this is if the blind are in space. Conversely, if the numbering system is outside the room (outdoor numbering system), the blind is outside the room. 4. Measurement is the process of measuring to find out the exact and correct dimensions of an object by using a certain size.5. Compass Direction The direction of the wind (Compass Direction) these are specific directions determined by the magnetic motion of the earth. Then 4 Compass Directions, which are north, west, south and east.6. Self Familiarization is the visually impaired will not have difficulty moving around in a familiar environment and is familiar to him. The ability of orientation quickly to learn, recognize and adjust to something new such as: where am I, where is my objective, how do I get there.

The aims of CSOM learning for blind children is that they are able to move in accordance with the objectives in all environments, known or familiar and unknown or unfamiliar, efficient, pleasant, and independent. In this study, authors aimed to improve the social skills of children with visual impairment aged 9-10 years.

#### METHODOLOGY

The research methodology is the procedure to get the data with purpose and certain uses (Sugiyono 2013). This research used qualitative method within experiment approach. The Experimental research methods that used is in the form of Single Subject Research (SSR) which uses the A-B-A design, it is uses two control condition (baseline) before and after the interventions. The design is able to shows the cause and effect between the independent and dependent variables. (Sunanto and Dkk 2005) stated with implemented double control will further enhance the causal relationship between intervention and change in target behavior.

In this research is consist of two variables, independent variable is the learning orientation of mobility impaired children of transition age 9-10 years, while the dependent variable is social skills. The intervention gives during 14 sessions, subject in this research consist of 3 impaired children of transition age 9-10 years, 2 girls and 1 boy. With initial EL, AH, and ZH, the interventions were carried out by teaching children get to know and implemented the daily activities independently. The learning steps carried out in this study were (1) identification of the environment according to ability and experience, (2) remembering and listening to what is found in the surrounding environment, (3) telling what is observed according to experience, and (4) giving the feedback. This study was carried out for 20 days, divided into 3 stages: baseline 1 (3 days), intervention (12 days), and baseline 2 (5 days). The study was carried out in schools and the surrounding environment.

Data collection technique is uses research instrument. (Sugiyono 2012)stated that the research instrument that used as a tools to measure the phenomenon to measure both natural and social that will be observed. This research uses the test and observation, test means as a tools to collecting the data with measure the ability of research subjects in mastering certain material(Sanjaya 2013). Those statements are supported by (Arikunto 2013)the test that used to measure the skills including knowledge, ability that have by individual or group. The action test is carried out using a task analysis. The observations in this study were carried out for 1 week (with 2 hours per day) by the teacher and research assistant. The observation sheet is used to measure the social abilities of children with visual impairment aged 9-10 years.

Data analysis in this study used analysis of conditions and analysis of conditions. Analysis in conditions includes the length of the condition, estimated direction tendency, level of stability, data trace, level of stability and range, and level of change. Meanwhile, analysis between conditions consists of variables that are changed, changes in direction trends, changes in stability trends, level of change, and the percentage of overlapping data).

## **RESULT AND DISCUSSION**

#### CSOM learning for blind children

The aims of CSOM learning for blind children is that they are able to move in accordance with the objectives in all environments, known or familiar and unknown or unfamiliar, efficient, pleasant, and independent. Increased the independence from OMSK can brings the positive effect for impaired children. Learning must start from what is already known and lead to learning that is not known from the concrete to the abstract, from a quiet environment to a crowded environment, from the nearest environment to a wider environment and from easy to difficult.

The OMSK learning including: (1) perception, which assimilation process from the environment that is obtained from the still-functioning wilds such as: hearing, smell, palpation, kinesthetic, vesta bula and residual staging. (2) Analysis, the process organization information that obtained in the category based on relevance, determination, source, type, involvement and intensity of the sensor. (3) Selection, the process of selecting information that has been analyzed and is needed in conducting orientation and mobility that can describe the situation of the surrounding environment. (4) Planning, this is the process of planning actions which carried out through the results of sensory selection to describe the environmental situation. (5) Implementation, namely the process of carrying out the results of planning in an action.

The benefit OMSK learning in the in daily life such as activities at school walking to the mosque, teacher's room, the place to play, the canteen and toilet. From the activity above the most crucial thing is being able to go to the toilet independently. The success of toilet training learning, blind children need to be introduced to the terminology in CSOM, including: (1) Trailing, the movement uses the finger back to touch with light in the following a flat wall surface (wall, table, cupboard). (2) Direction taking, which is the namely the act of determining a direction of an object or sound that allows walking in a straight line to the destination. (3) Landmark, which is an object of sound, smell, temperature or palpation that can be used as a clue or clue that is easily recognizable and has a definite place in the environment. (4) Clue which is a stimulation of sound, smell, temperature which affects the senses that can be used to determine position or direction. (5) Lining off, is to align the body with objects. (6) Exploring pattern/search pattern, which is a systematic way of establishing a position or determining the location of an object or field characteristics.

The novelty or the presence OMSK of functional curriculum design for children aged 9-10 years old, namely functional concepts should ideally be based not only on the functional concept of learning programs but must be based on theoretical concepts that describe a system that in OMSK functional curriculum design

develops the model of (Morrison, G.R., Ross, and Kemp 2011)Morrison, Ross, Kalman, Kemp (2011) consists of:

### Instructional problems

Instructional Problem are the activity including the analysis purpose based on the learning problem which found in the curriculum, it applies in special schools for the blind for the study material to be developed. Loss of vision can make it difficult for the visually impaired to do mobility, meaning that at a difficult stage to move, from one place to another desired.

## Learner characteristics

In this step implement the analysis of the characteristics of the blind 9-10 year transition student will be analyzed. There are the characteristics of impaired children related with the OMSK functional curriculum activities for blind children. The characteristics of impaired children is including (a) suspicious of others, (b) dependence on others, (c) feelings of inferiority.

## Task analysis

Task analysis is a breakdown of the subject matter content in the form of an outline to master contents of the study material or learn skills that include cognitive, psychomotor, and social skills of the visually impaired age of 9-10 years. Analysis Task is including content structural analysis, procedural, concept, and information process. Content structure analysis implemented by looking at the curriculum while procedural is done by identifying the stages of completion of the task so that the task map is obtained. For example, when a blind child will get an assignment, the teacher first identifies the blind child according to their development whether the curriculum is able to facilitate them or not. Furthermore, the accompanying teacher arranges the steps in the form of tasks that must be performed by blind children who are different according to the needs that have been arranged in the Individual Learning Program.

## Instructional objectives

Instructional objectives are aimed to special learning for impaired children with (learning result indicator) which obtained from the results of objective analysis that implemented in at the stage of learning problems for blind children. Instructional objectives for impaired children in the individual learning program (PPI) is according to the characteristics and needs of blind children individually.

## **Content sequencing**

In this step the contents of the subjects to be taught are sorted first. According to Posner and Strike (Morrison, G.R. et al. 2011)(Morrison, dkk 2011)there are five

aspects needs to notice in sorting the subject there are prerequisite knowledge, familiarity, difficulty, interest, and student development. After the contents of the subject are sorted, the next step is to determine the initial learning strategy.

## Instructional strategies

Instructional strategy is used to illustrate the sequence and learning method to achieve the goals set. The general criteria are to the selection of teaching and learning strategies that are appropriate to the specific instructional objectives include efficiency, effectiveness, economics, and practicality through an alternative analysis. Learning strategy that used is contextual teaching and learning. The strategy is given to the impaired children because the material that because the material presented is adjusted to the real situation, directly to the example (concrete).

## Instructional delivery

The method of instructional delivery is determined based on the purpose and learning environment, which can be classical, group, or individual. The learning method that implemented for impaired children with using the palpable hearing function without using the sense of sight include a) lecture method, b) question and answer method, c) discussion method, d) sorogan method, e) bandongan method, and f) driil method.

## Revision

Revision that means is to evaluate and fix the developed learning product. Revision is implemented from a stage that has been reviewed by experts, the result of learning simulation, and the results of field trials.Data found in learning are analyzed as an attempt to recognize the difficulties experienced by children with visual impairment in achieving the goal of connecting these difficulties with certain deficiencies in the learning process.

#### Summative evaluation

Summative evaluation is implemented to assess the benefit of a program until the evaluation result can be determined of a certain program will continue or stop. In the summative evaluation is focusing in the important variable for program sponsors and decision makers. External evaluators or review teams are often used because internal evaluators can have different interests.

Summative evaluation is implemented to determine how the end of the program is useful and also the effectiveness of the program. Purwanto, in Mulyadi (2017) refers that the evaluation model revealed by Scriven, that formative evaluation is an evaluation carried out while the system is still under development whose improvements are continuously made on the basis of the results of the evaluation.

Whereas, summative evaluation implemented after the system is evaluation is done after the system has finished undergoing testing and improvement. Summative evaluation is more directed at measuring how far the main learning outcomes are achieved at the end of all learning, it can also be a follow-up activity after students complete a learning program to determine whether and how they use and apply the knowledge, skills, and attitudes they learn in the learning program.

Implementation of OMSK Functional Curriculum Design Learning for Children with Transition Age 9-10 Years as follows:

(1) OMSK for impaired in 9-10 years transition arranged not based on CSOM for visually impaired 9-10 year olds is arranged not based on levels, education units and grade levels. (2) The methods, learning tools and evaluation are adjusted to the development and needs of blind children. (3) The learning process is carried out prioritizing the motor and psychomotor aspects. (4) The mastery of abilities and indicators does not have to be done sequentially, but the teacher is given the authority to choose according to the conditions and needs of blind children. (5) Teachers should utilize the surrounding environment as a medium and a source of training resources. (6) The assessment system uses qualitative assessment, a measure of the success of CSOM learning for blind children.

(2) Determined the training material priority based on the assessment result, material Unknown material may be more than one then the teacher must choose which material needs to be trained first.

(3) Determined the purpose of the exercise establishing the objectives of the exercise after the material to be practiced, the teacher sets and sets the objectives to be achieved.

Objectives must have the following elements:

A = Audience is who will reach the goal

B = Behavior is behavior that must be shown

C = Condition at what condition the behavior is displayed/shown by the audience D = Degree is a criterion that the behavior displayed (performance behavior) explains that it has successfully mastered the knowledge and skills taught.

4. Analyze the training activity material

If the goal has been clearly established, the next step is to analyze or break down the goal into Small parts that can be taught. The higher the ability of blind children to receive lessons, the greater the steps in achieving the goals set. Means the number of steps and stages that must be passed is getting smaller. The number of steps of the activity also depends on the complexity of the task material being taught. In learning skills OMSK for impaired children consist of or 3 ways which is:

a. Learning with verbal, teacher gives the instruction and impaired children implemented the instruction verbal. This method can work when faced with children who are blind who have a wealth of concepts that are quite adequate.

b. Learning with Master's demonstration method gives the technique example and implementing skills. Impaired children with visual impairments observe by feeling from the movements exemplified by the teacher. After that, blind children practice and imitate what is exemplified by the teacher.

c. Teaching with physical assistance the teacher directly sends blind children and gives an example directly to blind children. The weakness of this way is often direct contact with student and can cause discomfort in blind children, especially those who have grown up. Teacher in teach a technique in mobility is often use the third which is verbal, demonstration, and help or physical contact. The higher ability of impaired children accept the receive lessons less and less use or physical contact in the learning process.

d. Determined the Success criteria for training

In the evaluation needs the criteria. The Criteria means to determine whether the performance is shown in the evaluation meets the requirements for categorizing successfully. We already know that evaluation in Orientation and Mobility is emphasized in evaluation in the form of activities.

e. Determined follow-up steps

Evaluation in orientation and mobility emphasizes the evaluation of appearance and deeds. The assessment of success in evaluation is determined based on the specified criteria. Then the way to evaluate impaired children in implements OMSK for impaired children 9-10 years of age is to see firsthand when blind children do these activities. The success can be set if impaired children can practice the OMSK skills in the real situations.

Individual Learning Program (PPI) in OMSK Functional curriculum of impaired children 9-10 years

1. Identity is including the information namely name, address, condition, and time.

2. The current ability is including results of children's abilities obtained from assessment activities.

3. The ability developed is including the ability that must improved by children, based on the assessment result. 4. Functional curriculum is including daily activity, life component, work component Components in a relationship with others free time ability. 5. Learning model is including (model that used is set with the learning will gives to children) accompanied by the syntax of the model used.

From the entire third subject has obtained the results of improving the social ability of impaired children 9-10 years. There is each of the third data of research subject. The research subject 1 which is AH during 14 session consist of 3 sessions baseline-1 (A1), 8 treatment sessions (B) and 3 baseline-2 (A2) sessions are presented in the table below:

<b>Baseline Phase-1</b> (A1)		Intervention Phase (B)		<b>Baseline-2 Phase (A2)</b>	
Session	Value	Session	Value	Session	Value
1	70%	1	90%	1	93%
2	76%	2	86%	2	95%
3	75%	3	90%	3	97%
		4	90%		
		5	90%		
		6	93%		
		7	93%		
		8	93%		

**Table 1**. The Recapitulation Results of Subject 1 Research Data

In this study is using data analysts in conditions and between conditions. More clearly the following table 2 analyzes the data in Subject 1 conditions.

Condition	A1	В	A2
Condition Length	3	8	3
Trend direction estimation			
	(-)	(+)	(++)
Trend of stability	Stabil (100%)	Stabil (100%)	Stabil (100%)
Estimated data footprint			
	(-)	(+)	(+)
Stability level and range	Stabil (70-76)	Stabil (86-93)	Stabil (93-97)
Level change	(+3)	(+3)	(+4)

 Table 2 Analyzes the data in Subject 1 conditions

Based on **Table 2** above, the data analyst results are presented in the baseline (A1), intervention (B), and baseline-2 (A2) phases. Conditions Length A1 base line-1 (3), intervention B (8), and A2 base line-2 (8). Estimation of trends tends to explain data from each session. The baseline-1 (A1) phase has decreased; it can be seen from the downward trend direction due to the scores obtained starting from the first session to the last session. The intervention phase (B) has increased; it can be seen from the trend line which is upward direction due to the scores obtained going up from the first session to last session. The baseline-2 (A2) phase has increased, it can be seen from the trend line which direction is increasing due to the scores obtained going up from the first session to the first session. The results of the calculation of the tendency of stability in the baseline-1 (A1) phase is 100%. So, the three phases experiencing stable data tendency are stable. Based on the estimation of the trace line the baseline-1 (A1) phase has decreased, the

intervention phase (B) has increased, and the baseline-2 (A2) phase has increased. At the level of stability and range, the baseline-1 (A1) phase decreases stably with a range of 70-76, the intervention phase (B) increases stably with a range of 86-93, and the baseline-2 (A2) phase stably increases with a range of 93 -97. The level of change in the baseline-1 (A1) phase shows the sign (+) which means it increases, the intervention phase (B) shows the sign (+) which means it increases, and the baseline phase-2 (A2) shows the sign (+) which means it increases.

#### Analysis of the subject condition 1

In this research analysis between conditions mean as the analysis activity which implemented between 2 condition of baseline and intervention. Analysis implemented after the data shown the stability. There the table 3 data analysis between conditions below:

No	Comparison of Condition	B/A1	A2/B
a	Number of variables changed	1	1
b	Trend direction and effects	(-)	(+) (-)
с	Changes in stability trends	Stable to steady	Stable to steady
d	Level change	(90-73) +17	(93-93) 0
e	Overlapping percentage	0%	-

 Table 3 Data Analysis between Conditions

**Table 3** is the result of the analysis of conditions, it can be seen that the number of variables changed is one, namely the social ability of children with visual impairment aged 9-10 years. For changes in the direction and effect of the trend between the baseline-1 (A1) phases to the intervention phase (B) is decreased to increase which means an increase after obtaining the intervention. Whereas, in the baseline-2 (A2) phase to intervention (B) is increased to a level, it means that giving an intervention can improve the ability of the subjects. Changes in the tendency of baseline-1 (A1) stability with intervention (B) are stable. Meanwhile, between baseline-2 (A2) and intervention (B) is stable to stable. At the change in baseline-1 (A1) level to intervention (B) of +17 it means that the social abilities of children with visual impairment aged 9-10 years have increased by +17. Meanwhile, baseline-2 (A2) to intervention (B) is 0, meaning that the social ability of children with visual impairment aged 9-10 years remains the same even though intervention (B) is no longer given. The percentage of overlap in the baseline-1 (A1) phase to the intervention (B) is 0. That means the intervention is

able to influence the subjects. In other words, the application of Mobility Orientation learning can improve the social abilities of children with visual impairment aged 9-10 years.

Data subject 2 obtained the improvement result of social ability of impaired children 9-10 years. The research subject 2 which is EL during 14 sessions that consist of 4 session baseline-1 (A1), 6 sessions 6 treatment sessions (B) and 4 baseline-2 (A2) sessions are presented in the table below:

Baseline Phase-1 (A1)		Intervention Phase (B)		Baseline Phase-2 (A2)	
Session	Value	Session	Value	Session	Value
1	70%	1	90%	1	93%
2	76%	2	86%	2	95%
3	75%	3	88%	3	97%
4.	73%	4	90%		
		5	90%		
		6	95%		

**Table 4.** The Recapitulation Results of Subject 2 Research Data

In this research used the data analysis in condition and between conditions. As explained below in the table 5 data analysis in condition subject 1.

Condition	A1	В	A2
Long Condition	4	6	4
Trend direction			
estimation	(-)	(+)	
Trend of stability	Stable	Stable (100%)	Stable (100%)
	(100%)		
Estimated data			
footprint	(-)		
		(+)	(+)
Stability level and	Stable (70-	Stable (86-90)	Stable (93-97)
range	76)		
Level change	(+3)	(+5)	(+4)

 Table 5 The Data Analysis Between Condition Subjects 1.

Based on **Table 5** above, the data analyst results are presented in the baseline (A1), intervention (B), and baseline-2 (A2) phases. The conditions Length of A1 baseline-1 (3), intervention B (8), and A2 baseline-2 (8). Estimation of trends tends to explain data from each session. The baseline-1 (A1) phase has decreased it can be seen from the downward trend direction due to the scores obtained starting from the first session to the last session. The intervention phase (B) has increased it can be seen from the trend line which is upward direction due to the scores obtained going up from the first session to last session. The baseline-2 (A2)

phase has increased, it can be seen from the trend line which direction is increasing due to the scores obtained going up from the first session to the last session. The results of the calculation of the tendency of stability in the baseline-1 (A1) phase are 100%, the intervention phase (B) is 100%, and the baseline-2 (A2) phase is 100%. So, the three phases experiencing stable data tendency are stable. Based on the estimation of the trace line the baseline-1 (A1) phase has decreased, the intervention phase (B) has increased, and the baseline-2 (A2) phase has increased. At the level of stability and range, the baseline-1 (A1) phase decreases stably with a range of 70-76, the intervention phase (B) increases stably with a range of 93 - 97. The level of change in the baseline-1 (A1) phase shows the sign (+) which means it increases, the intervention phase (B) shows the sign (+) which means it increases.

#### Analysis between subject conditions 2

In this research analysis between conditions mean as the analysis activity which implemented between 2 condition of baseline and intervention. Analysis implemented after the data shown the stability. The following table 6 analyzes data between subject conditions 2 of initial EL:

No	Comparison of Conditions	B/A1	A2/B
a	Number of variables changed	1	1
b	Trend direction and effects	(+) (-)	(+) (-)
с	Changes in stability trends	Stable to steady	Stable to steady
d	Level change	(90-73) +17	(93-95) +2
e	Overlap percentages	0%	-

**Table 6**. Analyzes Data between Subject Conditions 2 of Initial EL

**Table 3** is the result of the analysis of conditions, it can be seen that the number of variables changed is one, namely the social ability of children with visual impairment aged 9-10 years. For changes in the direction and effect of the trend between the baseline-1 (A1) phases to the intervention phase (B) is decreased to increase which means an increase after obtaining the intervention. Whereas, in the baseline-2 (A2) phase to intervention (B) is increased to a level, it means that giving an intervention can improve the ability of the subjects. Changes in the tendency of baseline-1 (A1) stability with intervention (B) are stable. Meanwhile, between baseline-2 (A2) and intervention (B) is stable to stable. At the change in

baseline-1 (A1) level to intervention (B) of +17 it means that the social abilities of children with visual impairment aged 9-10 years have increased by +17. Meanwhile, baseline-2 (A2) to intervention (B) is +2, it means that the social ability of children with visual impairment aged 9-10 years has increased by +2. The percentage of overlap in the baseline-1 (A1) phase to the intervention (B) is 0. That means the intervention is able to influence the subjects. In other words, the application of Mobility Orientation learning can improve the social abilities of children with visual impairment aged 9-10 years.

<b>Baseline Phase-1</b> (A1)		Intervention Phase (B)		Baseline-2 Phase (A2)	
Session	Value	Session	Value	Session	Value
1	70%	1	90%	1	93%
2	76%	2	86%	2	95%
3	75%	3	88%	3	97%
4.	73%	4	90%		
		5	90%		
		6	95%		

 Table 7. The Recapitulation Results of Subject 3 Research Data

In this research uses the data analysis in the condition and between conditions. It is explain in the table below:

Table8. The Data Analysis in Subject 3 ZH Condition

Condition	A1	В	A2
Condition Length	4	6	4
Trend direction estimation	(-)	(+)	
Trend of stability	Stable (100%)	Stable (100%)	Stable (100%)
Estimated data footprint	(-)	(+)	(+)
Stability level and range	Stable(70-76)	Stable (86-90)	Stable (93-97)
Level change	(+3)	(+5)	(+4)

Based on **Table 8** above, the data analyst results are presented in the baseline (A1), intervention (B), and baseline-2 (A2) phases. Length of A1 baseline-1 (4), (B) intervention (6) and A2 baseline-2 (4) conditions. Estimation of trends tends to explain data from each session. The baseline-1 (A1) phase has decreased it can be seen from the downward trend direction due to the scores obtained starting from the first session to the last session. The intervention phase (B) has increased it can be seen from the trend line which is upward direction due to the scores obtained going up from the first session to last session. The baseline-2 (A2) phase has increased, it can be seen from the trend line which direction is increasing due to the scores obtained going up from the first session to the last session. The results of the calculation of the tendency of stability in the baseline-1 (A1) phase are 100%, the intervention phase (B) is 100%, and the baseline-2 (A2) phase is 100%. So, the three phases experiencing stable data tendency are stable. Based on the estimation of the trace line the baseline-1 (A1) phase has decreased, the intervention phase (B) has increased, and the baseline-2 (A2) phase has increased. At the level of stability and range, the baseline-1 (A1) phase decreases stably with a range of 70-76, the intervention phase (B) increases stably with a range of 86-93, and the baseline-2 (A2) phase stably increases with a range of 93 -97. The level of change in the baseline-1 (A1) phase shows the sign (+) which means it increases, the intervention phase (B) shows the sign (+) which means it increases, and the baseline phase-2 (A2) shows the sign (+) which means it increases.

#### DISCUSSION

# Social capabilities of blind children transition ages 9-10 years before intervention is given

In impaired children condition is not achieve the intervention regarding mobility orientation learning. In these conditions the limitations of blind children due to visual impairment are often a reason for parents to always help without communication. So that children are more likely to wait for the offer and invitation from their parents. They just show a different gesture; they have not able to communicate their desires because so far parents directly help. Lack of communication between children and parents causes low social skills. This is in accordance with the baseline-1 phase (1) the value obtained by children with visual impairment in the mean level of 73.66, Estimated trace data has decreased because the scores obtained are increasingly down.

#### Social capabilities of blind children transition ages 9-10 years after intervention

The social abilities of children with visual impairment at the age of 9-10 years after being given an intervention show that they are able to express their wishes. Previously they only showed uncomfortable gestures, crying. Learning begins with the mentor and parents first, after the child has begun to be comfortable and know the environment, the child is only accompanied by a teacher assistant until the child is ready and comfortable doing the exercises independently. Every exercise the teacher does not forget to give rewards in the form of words that are able to motivate children and things they like. This learning certainly will not succeed if it is not accustomed to and only done at school.

The purpose of this learning is so that blind children have good social skills. The limitation of vision experienced by children with visual impairment is no longer an increasingly heavy burden if their social abilities are also low. Lack of understanding of concepts, low communication will make children with visual impairments increasingly withdraw from their environment. To avoid these things, mobility orientation learning was chosen because these problems are crucial for blind children, at the age of 9-10 years or known as Middle and late childhood. (Santrock 2008) stated that the period of child development in the Middle and late childhood stages starts from the age of 9-10 years. At this age children begin to master the skills to read, write and count. The main themes of children's lives at the age of 9-10 years are achievement and self-control. In this period they interacted with the wider social world outside their families. Facts in the field of development of blind children in the Middle and late childhood stages do not indicate the development of children in general age, they show an attitude of excessive dependence on parents this is due to the mental unpreparedness of blind children in entering new environments or schools, often resulting in blind children feel not ready to develop social ability.

During the activity the teacher uses a contextual teaching and learning strategy to facilitate the learning process. Contextual teaching and learning because the material presented is adapted to real situations, directly to the example (concrete). The learning process is designed using the CTL (Contextual Teaching and Learning) strategy because the contextual teaching and learning strategy helps link the material taught with the real world situation of students. This strategy is needed for blind children because it can train them in making connections between the knowledge they have and their application in daily life.

## CONCLUSION

The advantages of CSOM curriculum design for children with visual impairment aged 9-10 years consist of: (1) written in 2 versions, namely caution writing and Braille writing (2) referring to the abilities and characteristics of children with visual impairment aged 9-10 years. (3) Providing functional skills learning for children with visual impairment aged 9-10 years by using orientation and mobility techniques. (4) Dynamic, learning design can be started from anywhere. No need to sequence, as symbolized by a circle that has no dash. Weaknesses of CSO functional curriculum design for children with visual impairment aged 9-10 years consist of which are only limited to the transition age of the year

Learning orientation of mobility towards social abilities of children with visual impairment aged 9-10 years experienced a significant increase in the percentage of overlap and intervention to baseline-1 (A1) by 0% which means there is no overlap between intervention and baseline-1 (A1). So it can be concluded that the

intervention affects the social abilities of children with visual impairment aged 9-10 years at SLB AB Kemala Bhayangkari 2 Gresik.

Based on research findings and field conditions, the researcher suggests the following suggestions: (1) recommendations for teachers developing OM learning. (2) Recommendations for future researchers to develop similar variables with different characteristics or with different targets. (3) Parent's recommendation is to be able to provide activities carried out while playing and relaxing so that the fine motor skills of blind children develop optimally.

#### REFERENCES

- Arikunto, Suharsimi. 2013. Research Procedure: A Practical Approach. Jakarta: Rineka Cipta.
- Cmar, Jennifer L. 2015. "Orientation and Mobility Skills and Outcome Expectations as Predictors of Employment for Young Adults with Visual Impairments." Journal of Visual Impairment and Blindness.
- Ferrell, K. A. 2006. Your Child's Development. USA: Woodbine House, Inc.
- Hill, E. W., and B. B. Blasch. 2010. Concept Development. New York: AFB Press.
- Hosni. 2013. Mobility Techniques and Service Strategies. Presented at the Technical Guidance of PTK Special Education Disability Organized by Sub-Directorate PK-LK. Batam.
- Kephart, N. C. 1960. The Slow Learner in the Classroom. Ohio: Charles E. Merrill Books, Inc.
- Lowenfeld, Berthold. 1981. "On Blindness and Blind People: Selected Papers." Amer Foundation for the Blind.
- Malik, Shazia, Umi Kalthom Abd Manaf, Nor Aniza Ahmad, and Maimunah Ismail. 2018. "Orientation and Mobility Training in Special Education Curriculum for Social Adjustment Problems of Visually Impaired Children in Pakistan." International Journal of Instruction.
- Malik, Shazia, Umi Kalthom Abdul Manaf, Maimunah Ismail, and Nor Aniza Ahmad. 2018. "Conceptualising Orientation and Mobility Practices within the Expanded Core Curriculum." Global Journal of Human Social Science 18(9).
- Morrison, G.R., S. M. Ross, and J. .. Kemp. 2011. Designing Effective Instruction (Third Edition). New York: JOHN & SONS, INC.
- Rahardja. 2012. Orientation and Mobility (O&M) as Compensatory Skills for the Blind. Yogyakarta.
- Salleh, Norshidah Mohamad, and Khalim Zainal. 2018. "Instructional Model for Social Skills Intervention Children with Visual Impairment." Creative Education.
- Sanjaya, Wina. 2013. Educational Research, Types, Methods and Procedures. Jakarta: Kencana Prenada Media Group.
- Santrock, JW. 2008. The Self, Identity, and Personality. New York: McGraw-Hill Companies, Inc.
- Sugiyono. 2012. Quantitative Research Methods, Qualitative and R & D.

Bandung: Alfabeta.

- Sugiyono. 2013. Educational Research Methods with Quantitative, Qualitative, and R & D Approaches. Bandung: Alfabeta.
- Sunanto, Juang, and Dkk. 2005. Introduction to Single Subject Research. Tsukuba: CRICED University of Tsukuba.
- Trimailani, Rina, Armaini, and Damri. 2015. "The Effectiveness of Pecs to Improve the Communication Ability of VII Class of SMPLB (Single Subject Research in SLB YPPLB Padang)." E-JUPEKhu (JURNAL ILMIAH PENDIDIKAN KHUSUS) 4(3).