

## THE ARRANGEMENT OF ASSESSMENTS AND TEST RESULTS OF FINE MOTOR SKILL ASSESSMENTS FOR PRE-WRITING READINESS AND ITS PRE-REQUISITE

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### Abstract

*This research is motivated by the need for an assessment that can measure the fine motor skill development of the pre-writing readiness of a child. The assessment in this study includes the systematic process of collecting data and information on the development of fine motor skills in pre-writing readiness possessed by students, the obstacles or difficulties, and the current individual learning needs. In conducting the assessment, the researchers at first designed an assessment instrument by developing available points of fine motor aspects of pre-writing readiness. Then, the instrument became a reference in the implementation of the assessment.*

*The purpose of the research is to arrange an assessment to be a reference that helps teachers, education practitioners, students and parents knowing the fine motor skills of students, finding resistance and aspects that cause students not to be able to write, and finding valuable information to create a learning program.*

*Based on the results of an experiment conducted in TK MustikaLembang (Mustika kindergarten), it was found that there were two children who had pre-writing skill problems. The results of the experiment are expected to be a reference for teachers and schools in preparing a learning program for children.*

**Keywords:** *Assessment, fine motor skill, writing readiness (pre-writing skills)*

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### INTRODUCTION

**A**ssessment is activities that are done to gather the data of abilities and obstacles experienced by students so that the need of the students can be met. One of the common assessments is the assessment of fine motor skill of pre-writing readiness. According to Santrok. JW (2007:216) fine motor skill involves movements which are controlled finely. Such activities require manual dexterity for example writing, tracing shapes, building, conducting manipulative movements to generate shapes by using the media, expressing themselves by using the media, and finger painting (made creations through the fingers). The fine motor skill assessment of pre-writing readiness in this study involves a systematic process of gathering data and information on the fine motor skill development of pre- writing readiness possessed by students, the obstacles or difficulties, and current individual learning needs. Considering that there are so many benefits of fine motor skill assessment of pre-writing readiness for students that a good guideline in assessing the fine motor skill of pre-writing readiness and its pre-requisite is needed to obtain relevant results in accordance with the

learning needs of students. Based on the condition, the guidelines have been made should be tested beforehand in order to find the deficiencies of the guidelines.

## METHODOLOGY

To assist teachers, educational practitioners and parents in finding abilities that have been possessed by students and relate to their fine motor skill of pre-writing readiness and its pre-requisite.

To assist teachers, educational practitioners and parents in finding factors that cause students not to be able to write. To assist teachers and educational practitioners in finding valuable information to arrange learning programs.

The fine motor skill assessment of pre-writing readiness is a systematic process of gathering data and information on the fine motor skill development of pre-writing readiness possessed by students, the obstacles or difficulties, and current individual learning needs. Data needed in this research emphasize heavily on the answers of the questions about why students have problems relating to fine motor skills of pre-writing readiness.

Tabel 1. The Outline Of Fine Motor Skill Development Assessment Of Pre-Writing Readiness (5-6 Years Old)

No	Aspects	Sub-aspects	Developmental Components (TjutjuSoendari)	Indicators
	Fine motor skills	Pre-writing	1.1 Holding stationary	1.1.1 Can hold a pencil correctly
			1.2 Moving stationary	1.2.1 Can move a pencil to thicken vertical lines 1.2.2 Can move a pencil to thicken horizontal lines 1.2.3 Can move a pencil to thicken circles 1.2.4 Can move a pencil to thicken triangles 1.2.5 Can move a pencil to thicken letters
			1.3. Copying letters, words, and sentences in block letters	1.3.1 Can copy vowel letters 1.3.2 Can copy consonant letters 1.3.3 Can copy words 1.3.4 Can copy sentences

1.4 Writing names in block letters	1.4.1 Can copy the student's own first name in block letters
	1.4.2 Can copy the student's own full name in block letters
	1.4.3 Can copy father's name in block letters
	1.4.4 to copy mother's name in block letters
1.5 Copying block letters at distance	1.5.1 Can copy vowel letters at distance
	1.5.2 Can copy consonant letters at distance
1.6 Copying letters, words, sentences in cursive script	1.6.1 Can copy vowel letters in cursive script
	1.6.2 Can copy consonant in cursive script
	1.6.3 Can copy words in cursive script
	1.6.4 Can copy sentences in cursive script

Tabel.2.The Outline Of Fine Motor Skill Development Assessment Of Pre-Writing Readiness/Prerequisite (5-6 Years Old)

No	Aspects	Sub- Aspects	Developmental Components	Indicators
	Pre-writing	1. Eyes movements	1.1 Opening and closing eyelids	Can close the eyes when there is a blow of a breeze towards the student's eyes.  Can close the eyes when the student sees near things move quickly towards the student's eyes  Can open the closed eyes when the student is asked to see something
			1.2 Glancing to the left and right side	Can glance/move the eyes to the left when the thing being seen is moved to the left side.

		Can glance/move the eyes to the left when the thing being seen is moved to the left side quickly.
		Can glance/move the eyes to the right when the thing being seen is moved to the right side.
		Can glance/move the eyes to the right when the thing being seen is moved to the right side quickly.
	1.3 Glancing up and down	Can glance/move the eyes up when the thing being seen is moved to the up side
		Can glance/move the eyes up when the thing being seen is moved to the up side quickly
		Can glance/move the eyes down when the thing being seen is moved down
		Can glance/move the eyes down when the thing being seen is moved down quickly
	1.4 Rolling eyes to the left and right side	Can roll the eyes clockwise
		Can roll the eyes anti- clockwise
	1.5 The eyes focus on the line when the straight line is being drawn.	Can focus the eyes on the line when the student is drawing straight horizontal lines.
		Can focus the eyes on the line when the student is drawing straight vertical lines.
	1.6 The eyes focus at the coloring time	Can focus the eyes on the picture when the student is coloring a picture.
	1.7 The eyes focus at cutting time	Can focus the eyes on the paper to be cut when the student is cutting the paper.
2.Fingers movements	2.1 Moving fingers	Can move the thumb flexion to the palm
		Can move the index finger flexion to the palm
		Can move the middle finger flexion to the palm
		Can move the ring finger flexion to the palm

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	Can move the little finger flexion to the palm
	Can span with the position of thumb and little finger up to 180
2.2 Folding papers	Fold square papers into a neat rectangle
	Fold circle papers into a half circle
	Fold colorful papers vertically many times to make a paper fan
	Fold a colorful rectangle papers of 15 cm into a rectangle of 7,5 cm
2.3 Kneading fingers	Shape square plasticines into small circles using fingers and palm
	Make the sound from a balloon by squeezing it.
	Can knead colorful papers so that they can be clutched
2.4 Taking beads	Take 2 cm beads from a box and move them into another box
	Take 1 cm beads from a box and move them into another box
	Take 0.5 cm beads from a box and move them into another box
2.5 Moving small things	Take things smaller than 0.5 cm from a box and move them into another box
2.6 Tearing papers into small pieces	Tear papers into small pieces
2.7 Cutting papers	Cut 15 cm papers straightly
	Cut square papers into triangles
	Cut papers in zigzag pattern
	Cut curved lines to form half circle
	Cut circle shapes

2.8 Coloring	Color a 10 cm square
	Color a 5 cm square
	Color a 1 cm square
	Color a 10 cm circle
	Color a 5 cm circle
	Color a 1 cm circles
2.9 Thickening Pictures	Thicken a 10 cm straight dotted line
	Thicken a 5 cm straight dotted line
	Thicken a 2 cm straight dotted line
	Thicken a 10 cm dotted triangles
	Thicken a 5 cm dotted triangle
	Thicken a 2 cm dotted triangle
	Thicken a 10 cm dotted circle
	Thicken a 5 cm dotted circle
	Thicken a 2 cm dotted circle
2.10 Beading	Bead 2 cm beads
	Bead 1 cm beads
2.11 Plaiting papers	Plait 10 cm long and 2 cm wide papers
	Plait 10 cm long and 1 cm wide papers
2.12 Piling up 3 stacked blocks	Pile 20 cm blocks vertically up to 3 stacks

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Pile 10 cm blocks vertically up to 3 stacks

Pile 5 cm blocks vertically up to 3 stacks

2.13 Piling up 4 stacked blocks Pile 20 cm blocks vertically up to 4 stacks

Pile 10 cm blocks vertically up to 4 stacks

Pile 5 cm blocks vertically up to 4 stacks

2.14 Piling up 5 stacked blocks Pile 20 cm blocks vertically up to 5 stacks

Pile 10 cm blocks vertically up to 5 stacks

Pile 5 cm blocks vertically up to 5 stacks

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Phase 1: Screening Description. Screening is conducted to find students who are suspected of having problems of pre-writing skills. The techniques used in the screening were interviews with teachers and parents through available interview guidance.

Phase II: Assessment Description. In the second phase, the assessment was conducted in two ways. The first assessment was gained through a test. In this test, students were expected to complete the task by filling instruments of each item and the instruction of the test was read by assessors (without directing to the desired answers).

Phase III: Extended Assessment Description. If the results of assessment tests have already confirmed that the students have problems at the level of pre-writing or at the frustration level, the students will continue to have the next assessment, namely the pre-requisite assessment of pre-writing. In this pre-requisite assessment, assessors use assessment instruments that are different from the instrument of assessment used in the previous phase. The pre-requisite instruments consist of two aspects of the assessment; eyes and fingers movements assessment with the total of the questions is 50. The technical implementation of the pre-requisite is same as the previous assessment phases.

Phase IV: Assessment Result Description. Assessment result is the last phase in the assessment of fine motor skill of pre-writing readiness. The results are obtained from the extended assessment according to the result of the prior test. The results of the assessment are described in the form of percentage. Beside describing the result quantitatively, assessors also give the description of actual condition of students containing the ability and the strength of students and problems experienced by the students in the pre-requisite of pre-writing.

Tabel 3. Tools Assessment and Scoring Instrument Assessment of Pre-writing readiness of 5-6 years old children

ASPECTS	SUB- ASPECTS	NO ITEM	ITEM	SCORING	DESCRIPTI ON	INFO
		1	Hold the pencil correctly!			
		2	Thicken the straight line up and down!			
		3	Thicken the straight line from left to right side!			
		4	Thicken the circle!			
		5	Thicken the triangle!			
		6	Thicken the letter a!			
		7	Thicken the letter b!			
		8	Thicken the letter c!			
		9	Thicken the letter d !			
		10	Thicken the letter e!			
Fine motor skill	Pre-writing	11	Copy the letter a!			
		12	Copy the letter i!			
		13	Copy the letter u!			
		14	Copy the letter e!			
		15	Copy the letter o!			
		16	Copy the letter b!			
		17	Copy the letter d!			
		18	Copy the letter p!			
		19	Copy the letter q!			
		20	Copy the letter n!			
		21	Copy the letter s !			
		22	Copy the letter z!			
		23	Copy the word 'mata'!			
		24	Copy the word 'susu'!			
		25	Copy the sentence			



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‘namasayadede’!	
26	Copy your first name!
27	Copy your full name!
28	Copy your father’s name!
29	Copy your mother’s name!
30	Move your index finger writing letter a!
31	Move your index finger writing letter i!
32	Move your index finger writing letter u!
33	Move your index finger writing letter e!
34	Move your index finger writing letter o!
35	Move your index finger writing letter b!
36	Move your index finger writing letter d!
37	Move your index finger writing letter p!
38	Move your index finger writing letter q!

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The assessment above is used as a guideline for assessors, while for students the assessors present it in the form of work sheets (*LKS*).

Tabel 4. Tools Assessment Of Pre-Writing (Pre-Requisite) Of 5-6 Years Old Children

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ASPECTS	SUB- ASPECTS	NO ITEM	ITEM	SCORING	DESCRIP TION	INFO
		1	Student response when an assessor blow a breeze wind towards his/her eyes			
		2	Student response when an assessor askes the student to close his/her eyes and mention things in the room			
		3	Student response when an assessor			

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		move a thing to the left side	
Pre- Writing	Eyes movement	4	Student response when an assessor move a thing to the left side quickly
		5	Student response when an assessor move a thing to the right side
		6	Student response when an assessor move a thing to the right side quickly
		7	Student response when an assessor move a thing up
		8	Student response when an assessor move a thing up quickly
		9	Student response when an assessor move a thing down
		10	Student response when an assessor move a thing down quickly
		11	Student response when an assessor asks the student to roll his/her eyes clockwise
		12	Student response when an assessor asks the student to roll his/her eyes anti-clockwise
		13	Student response when an assessor asks the student to focus his/her eyes on the line at the time the student is drawing straight horizontal lines
		14	Student response when an assessor asks the student to focus his/her eyes on the line at the time the student is drawing straight vertical lines
		15	Student response when an assessor asks the student to move his/her index finger flexion to the palm
		16	Student response when an assessor asks the student to move his/her middle finger flexion to the palm
		17	Student response when an assessor asks the student to span with the position of the thumb and little finger up to 180
		18	Student response when an assessor asks the student to fold a square

		paper into a rectangle using fingers
	19	Student response when an assessor asks the student to fold a circle paper into a half circle paper using fingers
	20	Student response when an assessor asks the student to fold a paper vertically and continuously using fingers to make a paper fan
	21	Student response when an assessor asks the student to shape a square plasticine into a ball using fingers and palm
	22	Student response when an assessor asks the student to take beads in various size inside a box using fingers and move them into another box
Fingers movements	23	Student response when an assessor asks the student to take things lesser than 0.5 cm using their fingers from the first box into another box
	24	Student response when an assessor asks the student to tear papers using fingers into small pieces
	25	Student response when an assessor asks the student to cut a paper in a certain length straightly
	26	Move fingers that is holding a scissors and cut a square paper into triangles
	27	Student response when an assessor asks the student to cut a paper in zigzag pattern
	28	Student response when an assessor asks the student to cut a cursive to form a half circle
	29	Student response when an assessor asks the student to cut a cursive forming a circle
	30	Student response when an assessor asks the student to move his/her fingers colouring a 10 cm square
	31	Student response when an assessor asks the student to move his/her fingers colouring a 5 cm square
	32	Student response when an assessor

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- asks the student to move his/her fingers colouring a 1 cm square
- 33 Student response when an assessor asks the student to move his/her fingers colouring a 10 cm circle
- 34 Student response when an assessor asks the student to move his/her fingers colouring a 5 cm circle
- 35 Student response when an assessor asks the student to move his/her fingers colouring a 1 cm circle
- 36 Student response when an assessor asks the student to move his/her fingers thickening a 5 cm dotted straight line
- 37 Student response when an assessor asks the student to move his/her fingers thickening a 2 cm dotted straight line
- 38 Student response when an assessor asks the student to move his/her fingers thickening a 10 cm dotted triangle
- 39 Student response when an assessor asks the student to move his/her fingers thickening a 5 cm dotted triangle
- 40 Student response when an assessor asks the student to move his/her fingers thickening a 2 cm dotted triangle
- 41 Student response when an assessor asks the student to move his/her fingers thickening a dotted house image
- 42 Student response when an assessor asks the student to move his/her fingers beading 2 cm beads
- 43 Student response when an assessor asks the student to move his/her fingers beading 1 cm beads
- 44 Student response when an assessor asks the student to move his/her fingers piling up 20 cm blocks into 3 stacks
- 45 Student response when an assessor asks the student to move his/her fingers piling up 10 cm blocks into
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3 stacks

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|----|-----------------------------------------------------------------------------------------------------------------|
| 46 | Student response when an assessor asks the student to move his/her fingers piling up 5 cm blocks into 3 stacks  |
| 47 | Student response when an assessor asks the student to move his/her fingers piling up 20 cm blocks into 4 stacks |
| 48 | Student response when an assessor asks the student to move his/her fingers piling up 10 cm blocks into 4 stacks |
| 49 | Student response when an assessor asks the student to move his/her fingers piling up 5 cm blocks into 4 stacks  |
| 50 | Student response when an assessor asks the student to move his/her fingers piling up blocks into 5 stacks       |
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Note: The assessment above is used as a guideline for assessors, while for students the assessors present it in the form of work sheets (LKS).

Score Criteria:

3 = Can do the test without any help with good results

2 = Can do the test well with a little help / can do the test without any help but

The results are less perfect

1 = Do the test with help and the results are less perfect

0 = Can not do the test at all

## RESULTS

Name of the school : TK Mustika

Status : Private

Address : JalanMaribaya, DesaLangensari, KecamatanLembang

The trial of the assessment was conducted to three students who were chosen based on the results of an identification conducted by team. Their initials are NT, RB and RF. We gave the assessment of fine motor skill of pre-writing readiness to all of them, and the result showed that one person (NT) obtained the score above 50% and met the criteria of independent level. Meanwhile, the rest (two other students namely RB and RF) included in the criteria of frustration level for getting scores of less than 50%. The results described that RB seemed to have problems especially in the aspect of copying names in block letters, and RF had problems in copying various shapes including simple shapes for examples thickening horizontal and vertical lines, hence it influenced him in drawing other more complex shapes. The power of students' hands in pressing pens were so weak that the letters or shapes they wrote were still slight.

Furthermore, the two students who were on the criteria of frustration level had the extended assessment. In this assessment, students were required to complete the task in accordance with the

instructions from assessors with guideline to the instruments of pre-requisite assessment that had been made by team. The results of the extended assessment explained that the first student with the initials RB did not have problems with eyes movement. Based on the response of the student in conducting eye movement test, the student (RB) can perform the test correctly. However, when the assessors asked the student to perform fingers movement test, the student found difficulties. The student fingers looked stiff and the student seemed reluctant to continue performing the test when the students found it difficult to do. As the consequence, the student tended not to perform the test completely. Meanwhile, for the second student with the initials RF, the results showed that RF can perform most of fingers movement test. RF can perform almost all the test by itself without any help, although the results were not perfect. RF seemed pretty confident when completing the test given by assessors and rarely asked for help from the assessors. Although it needed longer time for RF to perform the test, RF had finished all the test entirely.

## CONCLUSION

Fine motor skill assessment of pre-writing readiness is a systematic process of collecting data and information on the development of fine motor skill of pre-writing readiness possessed by students, the obstacles or difficulties, and current individual learning needs. To conduct the assessment, a good guideline in assessing fine motor skill of pre-writing readiness and its pre-requisite is definitely needed to get relevant results according to the children learning needs. Based on the results of the research above, teachers are expected to be able to compile individual learning programs for children, so that the learning process can run smoothly.

## REFERENCES

- CRI Team. Pembelajaran Berpusat pada Anak. Washington. CRI
- Gerald Wallace, James A. McLoughlin. (.....) Learning Disabilities: concepts and characteristics. 3rd ed. Revised by Merrill pub. Co., 1988 ISBN 0675208289, 9780675208284
- <https://dokterindonesiaonline.com/2012/01/27/deteksi-dan-intervensi-dini-kemampuan-motorik-halus-anak> (Accessed .....) )
- Hurlock, E. (1980). Psikologi Perkembangan. Jakarta. Erlangga Press
- Lerner, Janet, W. (1988). Learning Disabilities: Theories, Diagnosis and Teaching Strategies. New Jersey. Houghton Mifflin Company
- Mulliken, R. K., & Buckley, J.J. (1983). Assessment of Multihandicapped and Developmentally Disabled Children. Rockville, MD. Aspen
- Santrock, John W. (2007). Perkembangan Anak. Jakarta. Erlangga
- Setia, Endang, dkk. (2001). Assessment Motorik Halus untuk perkembangan Kemampuan Pra Menulis dan Kemandirian Anak Prasekolah (usia 4-6 tahun). Paper. Unpublished
- Soendari, Tjutju. (.....). Asesmen Menulis Permulaan. Paper. UPI. Unpublished
- Websites

Yusuf,S. (2001) PsikologiPerkembanganAnakdanRemaja. Bandung. PT RemajaRosdakarya