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# The design of Psychomotor Assessment Instrument for arabic language learning

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**Abstract:** Characteristics of psychomotor skills are in the form of sensory skills, alertness and the ability to act in a complex manner. Psychomotor skills of students in learning Arabic can be seen from the skills of students in carrying out language expressions. This study aims to describe how to design and design assessments in the psychomotor domain in learning Arabic. The method used in this research is descriptive qualitative with the type of research (library research), based on the method and type of research, the data sources are books and scientific articles that intersect with the subject matter. The results showed that the design and design of the psychomotor domain assessment instrument in Arabic learning could be done in the form of tests and non-tests. Test assessment instruments can be carried out when the learning process has taken place, and non-test instruments can be carried out during the process, namely when students practice.

**Keywords:** Arabic; Assessment Instrument Design; Psychomotor

Abstrak: Karakteristik keterampilan psikomotorik berupa keterampilan pengindraan, kesiagaan serta kemampuan diri dalam bertindak secara kompleks. Keterampilan psikomotorik peserta didik dalam pembelajaran bahasa arab nampak dari kemahiran peserta didik dalam melakukan ekspresi berbahasa. Penelitian ini bertujuan untuk mendeskripsikan tentang bagimana membuat rancangan dan desain penilaian pada ranah psikomotorik dalam pembelajaran bahasa Arab. Metode yang digunakan dalam penelitian ini adalah kualitatif deskriptif dengan jenis penelitian (*library research*), berdasarkan metode dan jenis penelitian maka sumber data berupa buku-buku dan artikel ilmiah yang bersinggungan dengan pokok bahasan. Hasil penelitian menunjukkan bahwa rancangan dan desain instrument penilaian ranah psikomotorik dalam pembelajran bahasa Arab dapat dilakukan dalam bentuk tes dan non tes. Instrument penilaian tes dapat dilakukan pada saat proses pembelajaran telah berlangsung, dan instrument non tes dapat dilakukan pada saat proses berlangsung yaitu saat peserta didik melakukan praktik.

Kata Kunci: Bahasa Arab; Desain Instrumen Penilaian; Psikomotorik

### INTRODUCTION

Learning outcomes can be grouped into three domains of cognitive, affective, and psychomotor. These three domains are unified and mutually supportive and cannot be separated explicitly. The domain that intersects with skills is the psychomotor domain.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Sugiarti, 'PENILAIAN PSIKOMOTOR SISWA PADA PEMBELAJARAN FISIKA MELALUI MODEL PEMBELAJARAN GUIDED INQUIRY', *Journal of Physics and Science Learning*, 02.1 (2018), 78–84.



Skills *(skills)* are acquired by students after students gain learning experience. Psychomotor relates to the learning outcomes of students whose achievement is through skills *as* evidence of the achievement of knowledge competence. Meanwhile, competence of this skill is an implication of the achievement of knowledge competence of learners.

Each subject or teaching material that taught always contains these three domains; it is the emphasis that is different. Subjects that require students' skills are definitely focused on the psychomotor aspect, in contrast to subjects whose content is in the form of theory which places more emphasis on the cognitive domain and also the affective domain.

Before explaining the meaning of skills competency assessment, it is necessary to first explain the meaning of psychomotor skills. Psychomotor skills are a series of movements to successfully complete a task. These movements are coordinated by the perception or organization and interpretation of information that enters through the senses.<sup>2</sup> Therefore, psychomotor skills have several characteristics, namely sensing, self-awareness and acting in a complex manner. This is evidence that skill competence is the implication of the fulfillment of the knowledge competence of students. These skills are evidence of a person's level of expertise in success at a particular task or set of tasks.

In essence, psychomotor learning outcomes are a manifestation of cognitive learning outcomes and affective learning outcomes (which only appear in the form of tendencies to behave or act). Cognitive and affective learning outcomes will become psychomotor learning outcomes if students have demonstrated certain behaviors or actions in accordance with the meanings contained in the cognitive and affective domains.

Research on the psychomotor domain has been widely carried out, both theoretical analysis studies and implementation and or development of learning designs in an effort to improve learning outcomes in these areas. Research by Fivia Eliza et al. (2019) entitled "Improving Student Psychomotor Competence Through Project Based Learning (PBL) Models at SMKN 5 Padang". This research is a classroom action research that reveals the role of the PjBL in improving students' psychomotor competence. In the

<sup>&</sup>lt;sup>2</sup> M Army Akbar and others, 'Intrumen Penilaian Harian Aspek Psikomotor Pendidikan Jasmani Olahraga Dan Kesehatan', *Stabilitas: Jurnal Pendidikan Jasmani Dan Olahraga*, 1.1 (2020), 56–62.



results of the study it was found that the learning model could improve student learning outcomes, especially in psychomotor competence.<sup>3</sup>

Another study by Kiki Miranti et al. (2022) "*Training Students' Psychomotor Skills through the Use of Student Worksheets (LKS)*". Researchers in their research found that psychomotor skills will emerge by inviting students to work actively in learning. One way that teachers can do is to use student worksheets (LKS). This is corroborated by the findings of the researcher that students' psychomotor skills can be trained well if repeated learning is carried out using LKS.<sup>4</sup>

Research conducted by I Putu Suarbawa (2019) with the title "Application of Problem Based Learning (Pbl) Models in Corel Draw Subjects to Improve Learning Outcomes in the Psychomotor Realm" From data analysis it was found that the Problem Based Learning (PBL) learning model was proven effective in improving psychomotor intelligence in this case is the student's Corel Draw learning outcomes. <sup>5</sup>

Previous research has proven that the research that will be conducted is research that has not been done before, that research related to the design of assessment instruments in the psychomotor domain in Arabic learning is the latest research.

#### **METHODS**

The research method used is descriptive qualitative, the type of research is *library* research, based on the method and type of research, the data sources are books and scientific articles related to the research subject. The technique of data collection is to search for references related to note-taking techniques. The data obtained were then reviewed and analyzed.

<sup>&</sup>lt;sup>3</sup> Fivia Eliza, Suriyadi Suriyadi, and Doni Tri Putra Yanto, 'Peningkatan Kompetensi Psikomotor Siswa Melalui Model Pembelajaran Project Based Learning (PjBL) Di SMKN 5 Padang', *INVOTEK: Jurnal Inovasi Vokasional Dan Teknologi*, 19.2 (2019), 57–66 https://doi.org/10.24036/invotek.v19i2.427.

<sup>&</sup>lt;sup>4</sup> Kiki Miranti, Ahmad Rusyadi, and Fahmi Fahmi, 'MELATIH KETERAMPILAN PSIKOMOTORIK SISWA MELALUI PENGGUNAAN LEMBAR KERJA SISWA (LKS)', *Journal of Banua Science Education*, 2.2 (2022), 93–98 https://doi.org/10.20527/jbse.v2i2.106.

<sup>&</sup>lt;sup>5</sup> I Putu Suarbawa, 'Penerapan Model Problem Based Learning (Pbl) Pada Mata Pembelajaran Corel Draw Untuk Meningkatkan Hasil Belajar Di Ranah Psikomotor', *Indonesian Journal Of Educational Research and Review*, 2.2 (2019), 162 https://doi.org/10.23887/ijerr.v2i2.17624.



### RESULTS AND DISCUSSION

# Designing and Designing Instruments for Psychomotor

# 1. Learning Outcomes Assessment of Psychomotor Learning Outcomes

There are several experts who explain how to assess psychomotor learning outcomes. Ryan in Agus Dudung explained that skill learning outcomes can be measured through (1) direct observation and assessment of student behavior during the practical learning process, (2) after participating in learning, namely by giving tests to students to measure knowledge, skills, and abilities. and attitudes, (3) sometime after learning is complete and later in the work environment. Other opinions regarding the assessment of psychomotor learning outcomes include: (1) the ability to use tools and work attitudes, (2) the ability to analyze a job and arrange work sequences, (3) the speed of doing tasks, (4) the ability to read pictures and or symbols, (5) conformity with the expected shape and/or size that has been determined. <sup>6</sup>

From the explanation above, it can be summarized that the assessment of psychomotor learning outcomes or skills must include preparation, process, and product. Assessment can be done during the process, when students do practice, or after the process by testing students.

### 2. Classification of psychomotor domain goals The classification of psychomotor

Learning outcomes that is widely used is Simpson's formulation which is divided into seven levels, namely: (1) perception, (2) readiness, (3) guided movement, (4) familiar movements, (5) movement. complex, (6) adaptation, and (7) origination or creativity. <sup>7</sup>

## 1. Perception

Perception is the ability of the lowest psychomotor learning outcomes, namely the ability to distinguish a symptom from a symptom, the ability to catch stimuli, receive signals, and translate them into action.

In learning Arabic, this level of perception is reflected in: (a) students' ability to identify the different sounds of Arabic letters, words and sentences that are listened to,

<sup>&</sup>lt;sup>6</sup> Agus Dudung, *Penilaian Psikomotor*, KARIMA, Cetakan I, (Depok: KARIMA, 2018). h. 45

<sup>&</sup>lt;sup>7</sup> Abdul Munip, *PENILAIAN PEMBELAJARAN BAHASA ARAB* (Yogyakarta: Fakultas Ilmu Tarbiyah dan Keguruan, 2017) http://tarbiyah.uin-suka.ac.id/. h. 46



(b) ability to distinguish short lengths of harakat, syiddah, nun and tanwin, (c) ability to catch the main purpose of a short conversation in Arabic, (d) the ability to respond verbally to a simple stimulus given by using Arabic, (e) being able to copy back the Arabic text properly and correctly, and so on.

#### 2. Readiness

Readiness is the ability to put oneself to start an activity. For example, the readiness to place oneself before running, dance, type, demonstrate prayer, demonstrate the use of a thermometer, master the sequence of steps of an activity, demonstrate the correct position and so on.

In learning Arabic, this level of readiness is reflected in actions, including: (a) demonstrating the pronunciation of Arabic letters, words and sentences, (b) reading Arabic texts that are still complete with their syakals fluently, and with correct intonation, (c) able to write Arabic words, phrases and sentences dictated without looking at examples.

### 3. Guided movement

Movement is the ability to imitate the model exemplified. For example, following the correct brushing motion.

In learning Arabic, the psychomotor level of this guided movement is reflected in the students' abilities: (1) imitating the intonation of the teacher's reading well, (b) imitating native speaker speech styles in Arabic, (c) being able to demonstrate hiwar or Arabic dialogue according to the example. that has been given, (d) able to write simple Arabic sentences on the blackboard or notebook, (e) able to compose sentences or paragraphs in Arabic based on the mufradat that has been given, and so on.

#### 4. Accustomed movement

mechanisms Mechanism is the ability to perform movements without any models or examples. This ability is obtained because of repeated practice so that it becomes a habit. For example, the ability to demonstrate how to look for the shadow of objects using a microscope, demonstrate how to use a slide projector, demonstrate how to paint, and so on.

In learning Arabic, the ability of this mechanism is reflected in the ability of students to: (a) ask simple questions using Arabic, (b) answer questions in Arabic in their own words, (c) conduct questions and answers or discuss certain themes with their



next-door friend, (d) able to read Arabic text without syakal correctly, (e) able to translate simple Arabic text into Indonesian.

# 5. Complex

Movement Complex movement is the ability to perform a series of movements in the right way, sequence and rhythm. For example, demonstrating how to saw wood using a chainsaw, demonstrating how to drive a vehicle.

In learning Arabic, these skills will appear in students' ability to: (a) convey their own ideas or opinions using Arabic fluently, (b) write down their own ideas or opinions in Arabic, (c) re-express ideas or content. Arabic paragraphs in their own language, (d) translating complex Arabic paragraphs into Indonesian correctly and precisely, (e) concluding the contents of conversations or dialogues in Arabic using their own language, and so on.

## 6. Adaptation

Adaptation is the ability to adapt to new situations it faces. For example, demonstrating how to drive a car in the face of obstacles, and how to swim in a fast whirlpool.

In learning Arabic, these adaptation skills can be seen in students who are able to:
(a) respond to complex conversations in Arabic, (b) retell the content of reading using their own language orally, (c) write articles in Arabic on various themes.

## 7. Origination or creativity

Origination is the ability to create new movements that did not exist before, or combine existing movements into original combinations of movements.

In learning Arabic, these origination skills can be seen in the form of: (1) creating their own poetry, (2) producing excellent translations from Arabic, (3) demonstrating excellent Arabic communication skills in situations and conditions, whatever.

Meanwhile, Dave divides the domain of psychomotor learning outcomes into five levels, namely: 8

- a. Imitation is the ability to perform simple activities and exactly the same as those seen or paid attention to before.
- b. Manipulation is the ability to perform simple activities that have never been seen but based on guidelines or instructions only.

<sup>&</sup>lt;sup>8</sup> Andi Nurwati, 'Penilaian Ranah Psikomotorik Siswa Dalam Pelajaran Bahasa', *Edukasia: Jurnal Penelitian Pendidikan Islam*, 9.2 (2014), 385–400 https://doi.org/10.21043/edukasia.v9i2.78I.h. 393



- c. Precision is the ability to perform accurate activities so as to produce the right work products.
- d. Articulation is the ability to carry out complex and precise activities so that the results of their work are something intact.
- e. Naturalization is the ability to carry out activities reflexively, namely activities that involve only physical activity so that work effectiveness is high.

The following is a summary table of the psychomotor stages proposed by Dave

No	Psychomotor	Description	Examples of Measured	Operational Verbs	
	Level	Behavior	Activities		
1	Imitation	Imitating	Observing the teacher	Imitating, following,	
		actions	or trainer and then	replicating, repeating	
		exemplified by	imitating: process		
		others:	activities. Listening to		
		observing and	the teacher's reading		
		then replicating	then imitating it		
2	Manipulation	Reproducing	Performing tasks from	Recreate, build,	
		the activities of	written or verbal	demonstrate,	
		the trainer or	instructions.	implement,	
		his memory	Apply the teacher's	implement	
			instructions in speaking		
			Arabic		
3	Precision	Perform	Demonstrate skills in	Demonstrating,	
		skills without	carrying out tasks	perfecting,	
		the help of	without assistance or	calibrating,	
		others	instructions.	controlling	
		Adapt	Able to read Arabic text		
			without vowels		
			independently		
4	Articulation	Adapting and	Linking and combining	Constructing,	
		integrating	activities to develop	solving,	



		skills	methods		combining,	
					coordinating,	
					integrating, adapting,	
					developing,	
					reformulating	9
5	Naturalization	Carrying out	Define	goals,	Design,	specify,
		activities	approaches	and	manage	
		related to the	strategies			
		level of skill	for carrying out	certain		
		that has been	activities			
		possessed				

Source: Abdul Munip, Arabic Learning Assessment http://tarbiyah.uin-suka.ac.id

# 3. Types of Psychomotor Assessment Tools

For To measure learning outcomes in the psychomotor domain, there are two things educators need to do, namely making questions and making devices/instruments to observe student performance. Questions for psychomotor learning outcomes can be in the form of worksheets, assignment sheets, work orders, and experimental sheets. Instruments for observing student performance can be in the form of observation sheets or portfolios. Observation sheet is a sheet used to observe the existence of an object or the appearance of aspects of the skills observed. 9

The observation sheet can be in the form of a checklist or a*rating scale*. The checklist is in the form of a list of questions or statements whose answers are only to check (*check*) the answers that correspond to the observed aspects. The assessment scale is a sheet used to assess the performance of students or assess the quality of the implementation of aspects of the skills observed with a certain scale, for example a scale of 1 - 5. Portfolio is a collection of student work that is regular and continuous so that the improvement of students' abilities can be known to towards a certain competence.

<sup>&</sup>lt;sup>9</sup> Agus Dudung, *Penilaian Psikomotor*, h. 46



## 4. Construction of Psychomotor Instruments

Similar to questions in the cognitive domain, questions for assessing the psychomotor domain must also refer to competency standards that have been translated into basic competencies. Each item of competency standard is translated into at least 2 basic competencies, each item of basic competency can be translated into 2 or more indicators, and each indicator must be able to make items. Indicators for psychomotor questions may include more than one operational verb.

Furthermore, to assess student learning outcomes in the psychomotor domain, it is necessary to prepare an observation checklist, rating scale, or portfolio. There is no fundamental difference between the construction of the observation checklist and the rating scale. The preparation of the two instruments must refer to the questions or order sheets/worksheets/task sheets given to students. Based on the questions or command sheets/task sheets, an observation checklist or rating scale is made. In general, both the observation checklist and the rating scale consist of three parts, namely: (1) preparation, (2) implementation, and (3) results.

# 5. Preparation of Psychomotor Assessment Design

teacher should design a written assessment system that will be carried out for one semester. The design of this assessment is open, so that students, other teachers, and school principals can see it. The steps for writing an assessment plan are; 1) Observing the existing syllabus. 2) Develop a design assessment system based on the syllabus that has been prepared.

Furthermore, this assessment plan is informed to students at the beginning of the semester. Thus the assessment system carried out by the teacher is more perfect or increasingly meets the principles of assessment.

Meanwhile, according to Muslich in Alanisa that the specific steps in making psychomotor assessment instruments include: <sup>10</sup>

a. Identifying all the important steps that are needed or that will affect the best outcome (output).

<sup>&</sup>lt;sup>10</sup> Alanisa Lola Pasaribu, 'Pengembangan Instrumen Penilaian Ranah Psikomotor pada Materi Titrasi Asam Basa Kelas Xi-Mia SMAN 4 Kota Jambi', *Program Studi Pendidikan Kimia Jurusan Dan Ilmu Pengetahuan Alam FKIP Universitas Jambi* (Universitas Jambi, 2017). h. 6



- b. Write down the specific skills behaviors that are necessary to complete the task and produce the *output*.
- c. Try to make the criteria for the ability to be measured not too many so that these criteria can be observed as long as students carry out the action test.
- d. Define clearly the criteria for student abilities that must be *observable* or the characteristics of the resulting product.
- e. Sort the criteria for the ability to be measured based on the order that will be observed.
- f. If there is, check again and compare it with the criteria for the ability criteria that have been previously made by others.

# 6. Preparation of the Grid

The grid is a matrix that contains the specifications of the questions to be made. The grid is a reference for question writers, so whoever writes questions will produce questions with relatively the same content and level of difficulty.

Example of a grid of questions in the psychomotor domain in Arabic learning Table of grids about practice conversations/*muhādaṣah* 

Basic	Class	Learning	Indicator	Form	Number
Competencies	Materials/Semesters	Materials		Question	
1.3.	X/1	Introduction	Demonstrating	Practice	1
Practicing		-al/التعارف/	conversation		
simple		ta'āruf	in Arabic		
conversations			properly and		
using rules, as			correctly		
well as the					
values of					
cooperation,					
honesty,					
respect,					
enthusiasm,					
and self-					
confidence					



## 7. Preparation of Psychomotor Assessment

Instruments Psychomotor assessment consists of questions or orders and scoring guidelines to assess the performance of students in carrying out these orders/questions.

## a. Preparation of questions

The first step that must be taken by the author of the psychomotor domain is to look at the grid of instruments that have been made. Questions must be described from indicators by paying attention to learning materials. In the example of the grid above, the questions can be made as follows:

"Demonstrate/have a conversation using the vocabulary that has been learned about introductions/*al-ta'aruf*"

Questions in the psychomotor domain for mid-semester and end-semester tests which usually have reached level psychomotor manipulation, includes several indicators

## b. Scoring

guidelines Scoring guidelines can be in the form of an observation checklist or a rating scale that must refer to the question. This question/task sheet/work order is further elaborated into the observed skill aspects. For the questions from the example grid above, how to write an observation checklist or rating scale is as follows.

- 1. Observing the questions
- 2. Identify aspects of key skills in conversation *muhādaṣah*. in this case the aspects of the key skills are: (1) Vocabulary (2) Fluency, (3) Comprehension. (4) Qawaid (5) Confidence.
- 3. Identify the skill aspects of each key skill aspect
- 4. Determine the type of instrument to observe the student's ability, whether an observation checklist or an assessment scale
- 5. Write down the skill aspects in the form of questions/statements into a table
- 6. Reread the rating scale or observation checklist to ensure that the instrument he wrote is correct
- 7. Asking someone else to read or review the instrument that has been written to make sure that the instrument is easily understood by others.



Example of scoring aspects of conversational practice/muhādaṣah

No	Aspect assessed	Maximum Score
1	Vocabulary	20
2	Fluency	20
3	Qawaid	20
4	Understanding	20
5	Confidence	20
Total Score		100

## Performance Observation Sheet

No	Name	Score per aspect obtained				Score	
		Vocabulary	Fluency	Qawaid	Understanding	Confidence	Gained
1	Berti	10	12	12	15	20	69
2	Baso	15	20	18	20	20	93

#### **CONCLUSION**

Psychomotor ability is an ability related to muscle work and appears in the form of students' real actions after receiving the learning experience. Assessment of psychomotor learning outcomes or skills must include preparation, process, and product. Assessment can be done during the process, namely when students do practice, or after the process takes place by testing students. Simpson which is divided into seven levels, namely: (1) perception, (2) readiness, (3) guided movement, (4) accustomed movement mechanisms, (5) complex movement, (6) adaptation, and (7) origination or creativity. Meanwhile, Dave divides the domain of psychomotor learning outcomes into five levels, namely: (1) Imitation, (2) Manipulation, (3) Precision, (4) Articulation, (5) Naturalization. Assessment of psychomotor learning outcomes or skills must include preparation, process, and product.

## **REFERENCES**

Akbar, M Army, H M Mulhim, Universitas Lambung Mangkurat, and Guru Profesional, 'Intrumen Penilaian Harian Aspek Psikomotor Pendidikan Jasmani Olahraga Dan Kesehatan', *Stabilitas: Jurnal Pendidikan Jasmani Dan Olahraga*, 1.1 (2020), 56–62



- Dudung, Agus, *Penilaian Psikomotor*, *K A R I M A*, Cetakan I, (Depok: K A R I M A, 2018)
- Eliza, Fivia, Suriyadi Suriyadi, and Doni Tri Putra Yanto, 'Peningkatan Kompetensi Psikomotor Siswa Melalui Model Pembelajaran Project Based Learning (PjBL) Di SMKN 5 Padang', *INVOTEK: Jurnal Inovasi Vokasional Dan Teknologi*, 19.2 (2019), 57–66 https://doi.org/10.24036/invotek.v19i2.427
- Miranti, Kiki, Ahmad Rusyadi, and Fahmi Fahmi, 'MELATIH KETERAMPILAN PSIKOMOTORIK SISWA MELALUI PENGGUNAAN LEMBAR KERJA SISWA (LKS)', *Journal of Banua Science Education*, 2.2 (2022), 93–98 https://doi.org/10.20527/jbse.v2i2.106
- Munip, Abdul, *PENILAIAN PEMBELAJARAN\_BAHASA ARAB* (Yogyakarta: Fakultas Ilmu Tarbiyah dan Keguruan, 2017) http://tarbiyah.uin-suka.ac.id/
- Nurwati, Andi, 'Penilaian Ranah Psikomotorik Siswa Dalam Pelajaran Bahasa', *Edukasia: Jurnal Penelitian Pendidikan Islam*, 9.2 (2014), 385–400 https://doi.org/10.21043/edukasia.v9i2.78I
- Pasaribu, Alanisa Lola, 'PENGEMBANGAN INSTRUMEN PENILAIAN RANAH PSIKOMOTOR PADA MATERI TITRASI ASAM BASA KELAS XI-MIA SMAN 4 KOTA JAMBI', *Program Studi Pendidikan Kimia Jurusan Dan Ilmu Pengetahuan Alam FKIP Universitas Jambi* (Universitas Jambi, 2017)
- Suarbawa, I Putu, 'Penerapan Model Problem Based Learning (Pbl) Pada Mata Pembelajaran Corel Draw Untuk Meningkatkan Hasil Belajar Di Ranah Psikomotor', *Indonesian Journal Of Educational Research and Review*, 2.2 (2019), 162 https://doi.org/10.23887/ijerr.v2i2.17624
- Sugiarti, 'PENILAIAN PSIKOMOTOR SISWA PADA PEMBELAJARAN FISIKA MELALUI MODEL PEMBELAJARAN GUIDED INQUIRY', *Journal of Physics and Science Learning*, 02.1 (2018), 78–84

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