

# Suroto-9

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## Core Competency Measurement Model for Prospective Physical Education Teacher

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**Abstract.** Physical education teacher education refers to the policies and procedures designed to equip prospective physical education teachers with the knowledge, attitudes, behaviors, and skills they require to perform their tasks effectively in the classroom, school and wider community. Indonesian Ministry of Education has issued Competency standard to be a school teacher (Peraturan Menteri Pendidikan Nasional nomor 16 tahun 2007 tentang Standar Kualifikasi Akademik dan Kompetensi Guru) that consisting of 24 core competences. No measurement instrument has been developed for measuring prospective physical education teacher's competence level based on the national standard. The aim of this study is to develop an instrument for helping prospective physical education teacher to check to what extent their competence reach the government standard. In the first step, 24 questions were developed from each of 24 core competencies. And then, each question was equipped with 1 to 5 score options with description. After choosing the most suitable score, each answer was equipped with enough space for writing supporting data or argument. One hundred twenty volunteer students were randomly selected to fill out the instrument. The students' grade point average (GPA) were recorded from official university office. Data was analyzed by using Product Moment Correlation. The result shows that there is positive correlation between the scores and the student's GPA. Considering by the finding, this instrument could be uses as a competency measurement tool for prospective physical education teachers.

### 1. Introduction

Not excessive if the teacher is referred to as a determinant of the progress of civilization of a nation. Through the education system as any, the teacher's role is very important to equip the young generation with the competencies and attitudes required in the future. One of the educational system as a briefing was conducted by teachers at the school through the learning process. The education system in schools regulated by the government through the Law of the Republic of Indonesia number 20 of 2003 on National Education System. The law states that there are ten subjects are compulsory included in the curriculum primary and secondary schools, are: religious education, citizenship education, language, mathematics, natural science, social science, arts and culture, physical education and sport, skill / vocational, and local content [1].

In Indonesia, PE is one of the ten special subjects are compulsory subjects in the school curriculum. It said special because since the publication Permendikn 22, 2006, PE is the only subject that is designed to shape students have nine important aspects, i.e.: to develop aspects of physical fitness, motor skills, skills of critical thinking, social skills, reasoning, emotional stability, action moral, aspects of



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healthy lifestyles and the introduction of clean environment of the students [2]. Ideally, every teacher should be able to ensure that each student has nine of these aspects through a learning process. The teacher becomes the only person who is responsible for the quality of the learning process. Teacher quality determines the quality of the learning process [3]. Therefore, teachers must constantly learn to develop their competence.

Teacher competence development effort has been started since someone started to know about the science teacher ship. The science of the teacher ship was first recognized by the prospective PE teacher formally when they follow a program of physical education teacher education (PETE). PETE programs provide specialized courses on science learning and field experience of PE. In addition, they also get the socialization of professionalism to provide teachers with the knowledge, skills and character necessary to create an effective learning [4]. To provide quality learning services, then PETE develop curricula according to the needs of learning services and regulations. The composition of the core curriculum in PETE in Indonesia must include three competencies are: a core competency (40-80%), support (20-40%), and others that are specific competencies and gayut with core competencies (0-30%) [5].

With the implementation of the structured curriculum is expected that prospective teachers have high competency as a great teacher. Graduates PETE as a potential great teachers according to the National Association for Sport and Physical Education (NASPE) has six standards, are: scientific and theoretical knowledge, skill and fitness-based competence, planning and implementation, instructional delivery and management, impact on student learning, and professionalism [6]. So that the prospective PE teacher in America are able to have a standard six is said to be a great teacher. The question is whether the prospective PE teacher in Indonesia also needs to have a standard six NASPE to be a great teacher? Meanwhile, in Indonesia are still not prepared competency standards for prospective PE teacher. When referring to a standard of competence which should be owned by the PE teacher, it can be said that the prospective PE teacher must have four competencies, are: pedagogical, personality, social, and professional [7], [8].

Regardless of which standard is used, it should be structured competency measurement model to determine the achievement of quality standards of the prospective PE teacher. Therefore, this study tries to offer a model of competency assessment for prospective PE teacher. This study is part of a research project on the Development of Media Measurement and Media Skills Development Dikdasmen PE Teacher. Measurement instruments in competency measurement model is designed to be used regularly by prospective PE teacher during the PETE program.

## 2. Literature review

### 2.1. Prospective PE teacher standard in Indonesia

Until now still undiscovered prospective competency measurement model PE teacher who follows the PETE program in Indonesia. Currently, PETE in Indonesia is still used as a benchmark GPA prospective PE teacher competence [9]. The higher the GPA are considered higher the prospective PE teacher competence. Such presumption is indeed not one was used as a measure of success when he joined the prospective PE teacher PETE program. But when referring to the competencies required by the teacher, the GPA still cannot explain the achievement of the competency of teachers that have been formulated by the government. Because, basically, PETE obliged to establish a prospective PE teacher to achieve teacher competency expected by the government. For that, PETE need to check the achievement of the intended competence in accordance with the formula set by the government.

The Government has stated that teachers must have four competencies, are: pedagogical, personality, social, and professional [7]. This rule can also be used as a benchmark of quality prospective PE teacher. Furthermore, to clarify the contents of the government's four competencies breakdown of the four competencies to be 24 core competencies [8].

## 2.2. Competency measurement model for prospective PE teacher

Many studies suggest that teachers provide the greatest impact on the quality of learning. Therefore, the Indonesian government has made a lot of programs to improve the quality of service-learning in schools by improving the competence of teachers. The program is conducted through the teacher certification program by giving awards to teachers. Those who receive the award are eligible value of competence. Measurement of teacher competency for certification purposes carried out since 2007 through a portfolio. Subsequently, in 2011, the system changed teacher certification through Professional Teacher Education and Training with the purpose of provision of more adequate to become professional teachers.

Measurement of teacher competence is not only done for the purposes of teacher certification. The year 2010 has been made up guidelines on the assessment of teacher performance to measure four teacher competence. Teacher evaluations are conducted on continuous professional development materials [10]. In addition, for the purposes of teacher competency mapping Indonesian government to test the competence of teachers. Teacher competency test conducted formally and regularly, but on the other cannot be used daily by teachers, a measurement range of competence only measure pedagogical and professional.

Measurements of teacher competence above can be used as a reference that many ways to measure teacher competence. However, the government still has not determined how to measure the competence of prospective teachers. Dyson and Williams provide examples of competency measurement PE teacher candidates through the use of PE metrics [11]. They explained that the PE Metrics can be used to measure the competence of prospective teachers in one of NASPE standards. Cleary and Birch using a portfolio system for measuring the competence of the prospective PE teacher [12].

In general PETE in Indonesia measure competence through a portfolio of prospective PE teacher. Measurements were made when the prospective PE teacher doing teaching practice in schools partner PETE. However, the quality of the attitude of the prospective PE teacher makes the portfolio no longer effectively used in measuring the competence of prospective teachers. The portfolio is considered more opportunities to prospective teachers to fraud [9]. Portfolio assessment is done by the supervisor field without any follow-up of the results of the assessment. Supposedly measurement model prospective PE teacher competence not only serves to determine the level of competence of prospective teachers alone, but can be used as feedback for prospective teachers to improve their competence.

## 3. Research Methods

Model prospective PE teacher competency measurement used is self-assessment, with the hope of prospective teachers can regularly assess their own competence. Self-assessment can provide benefits in the form of auto-feedback for the development of self-competence during the PETE program.

Measurements were made in the prospective PE teacher who follows the PETE program at the State University of Surabaya. Measurements were made to those selected by simple random sampling at every level. Grouping level based on the current year prospective PE teacher, are: (1) level 2 is the second year prospective PE teacher; (2) level 3 is the third year prospective PE teacher; and (3) the level 4 is the fourth year prospective PE teacher. Each level have as many as 40 prospective PE teacher, so that the total selected sample of 120 prospective PE teacher.

Measurement instruments used in this model is the development of the four competency of teachers to 24 core competencies. Each core competency has a number of different answer choices. Used as much as 4-6 choice answers each answer indicates the level of competence. The answer given is considered correct if it corresponds to reality physical evidence. Correspondence between the physical evidence with response categories determine the validity of the answer. This instrument can also be charged by the data collector after conducting interviews with prospective PE teacher to be measured levels of competence.

To determine the reliability of an instrument for measuring the competence of prospective PE teacher, then do the analysis of the relationship between the values of the prospective PE teacher competence by GPA using product-moment correlation. Furthermore, the different test prospective PE teacher competency level between levels using ANOVA.

#### 4. Findings and Discussion

##### 4.1. Relationship between the value of the prospective PE teacher competence by GPA

The first test can be analyzing the relationship between the GPA with the competence of prospective PE teachers'. The correlation can be seen in table 1.

**Table 1.** Correlation GPA with prospective teachers' competence

	1	2	3	4	5	6
1. GPA	1	,466**	,245**	,001	,266**	,418**
2. Pedagogic		1	,282**	-,035	,311**	,732**
3. Personality			1	,376**	,459**	,751**
4. Social				1	,302**	,485**
5. Professional					1	,685**
6. Total competence						1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

From table 1 shows there is a positive correlation between the GPA with pedagogical, personal, professional, and total competence. While the social competence there is no correlation.

##### 4.2. Comparison Values Prospective PE Teachers' Competence by Level

Then compared the value of each level of competence. The results are shown in table 2.

**Table 2.** Comparison Values Prospective PE Teachers' Competence by Level (Cont.)

		N	Mean	SD	F	Sig.	Explanation
Pedagogic	Level 4	40	17,60	3,615	17,275	,000	Level 4 > 3 > 2
	Level 3	40	13,78	5,886			
	Level 2	40	12,23	2,337			
	Total	120	14,53	4,751			
Personality	Level 4	40	9,65	2,315	5,232	,007	Level 3 > 4 > 2
	Level 3	40	9,73	4,350			
	Level 2	40	7,80	1,728			
	Total	120	9,06	3,120			
Social	Level 4	40	7,80	2,377	1,413	,247	Same
	Level 3	40	8,60	2,898			
	Level 2	40	7,80	2,015			
	Total	120	8,07	2,466			
Professional	Level 4	40	10,33	1,886	4,521	,013	Level 4 > 3 > 2
	Level 3	40	9,35	2,751			
	Level 2	40	8,95	1,467			
	Total	120	9,54	2,165			
Total competence	Level 4	40	45,38	6,781	12,198	,000	Level 4 > 3 > 2

**Table 2.** Comparison Values Prospective PE Teachers' Competence by Level (Cont.)

	N	Mean	SD	F	Sig.	Explanation
Level 3	40	41,45	10,763			
Level 2	40	36,78	4,532			
Total	120	41,20	8,499			

Based on table 2, it can be explained that the higher the level the higher the value of pedagogic competence possessed by prospective PE teacher. Pedagogical competence is the competence of teachers related to teachers' skills in teaching and learning. Prospective PE teacher level 4 has been doing teaching practice in schools so it is likely they have more opportunities to learn to develop pedagogical skills are very high.

Looks like personality and social competence of prospective teachers develop not only a result they follow PETE program. Competence can be developed in accordance with their opportunities to interact with the environment in which they live. It was the result does not seem a high level followed by a second high this competency.

Professional competence be targeted PETE that the students were able to become a PE teacher great. Charge of lecture material is made to be able to deliver students to achieve professionalism as a PE teacher. For that, the higher the level, the more students get the material that is the focus to the formation of professionalism of student teachers. That is what led to the higher level, the higher the professional competence of student teachers PE.

Based on the above, it can be clarified that the prospective PE teacher competence varies significantly. It shows that the higher the level, the higher competence.

## 5. Conclusion

From the above results it can be concluded that: (1) there is a positive correlation between the GPS with pedagogical, personal, professional, and total competence. While the social competence there is no correlation. There is a difference value at every level of competence value significantly, except in social competence.

## 6. Implication

Competency Measurement Model for Prospective Physical Education Teacher using the self-assessment depends on the level of objectivity filler. Only prospective PE teacher who has a high level of objectivity that can optimally utilize the measurement results. If the demands are not met then the objectivity can reduce the functioning of the measurement model of competence.

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