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THE DEVELOPMENT OF CULINARY PEDAGOGIC COMPETENCE TEST MODEL ON THE PROFESSION EDUCATION OF VOCATIONAL SCHOOL TEACHERS OF CULINARY PROGRAM

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ABSRTACT

Specific development of pedagogic competence test model is highly necessary to generate appropriate competence models due to pedagogic difference between subjects. This research aimed to develop Culinary Art (food processing and serving) Pedagogic Competence Test model on Teacher Profession Education (PPG) of Culinary Expertise Program. This P2M Pedaboga Test utilized Plomp (1997) development procedures that comprised of (1) preliminary investigation phase; (2) design phase; (3) realization phase; (4) testing phase, and revision. Validity test carried out by two experts who assessed the devices and instruments of learning/training and test. Expertise level between the assessors against their assessment were analyzed analyzed using Cohen's Kappa Coefficient and percentage of agreement statistic. Subjects were PKK (Culinary Art) Education department students. Research result revealed that: (1) Pedaboga P2M test had 92% average of effectiveness, 87% of practicality, and 86% of implementation criteria; (2) competency test devices such as learning/training and test module had excellent criteria (3.73 in average), expertise check sheets and assessment rubric (justification) of training/test participants had excellent criteria (3.62 in average). Pedaboga P2M Test model could be utilized as reference for future pedagogic competence test activity of Teacher Profession Education for more specific Competence test assessment.

KEYWORDS: *Competence Test Model, Pedagogic Competence, Teacher Profession Education,Culinary Art*

1. INTRODUCTION

The Law of the Republic of Indonesia No. 14 Year 2005 requires teachers to have academic qualifications, competencies, and certificates of educator. To obtain a certificate of educator, a teacher take part in a teacher certification process, namely the process of teacher competence test. Teacher competency test is used as a mapping for grade and education quality improvement (Mulyawan, 2013). There are at least two teacher competencies tested in the teacher competency test, which are professional competence and pedagogic competence (Dharma, 2013: 302). In fact, however, the quality of teachers in Indonesia is still low. The low quality of teachers in Indonesia can be seen from the feasibility of the teaching. This is due to the lack of competence and qualifications of teachers as educational personnel (Murwati, 2013). This is stated by the the Director General of Teachers and Education Personnel (GTK) of Ministry of Education and Culture, SumarnaSurapranata that if the results of Teacher Competence Test on pedagogic competence is further specified, it has only national average of 48.94, of which is below the minimum competency

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standard,which is 55 (Ministry of Education and Culture, 2016). In relation to this matter, it is necessary that prospective teachers have competence in planning, implementing and assessing the learning, following up the result of the students' assessment and being able to conduct research and developing the profession through recruitment of professional prospective teachers of Professional Teacher Education program (Resmini, 2009: 83).

Currently, althoughthere is a Teacher Profession Education Program (*PPG*), the weakness of pedagogic competency test model in Teacher Profession Education is still general. Therefore,there has not been specification focused on certain subject to distinguish pedagogic competence test between kindergarten, elementary, junior high school, high school and vocational school teacher, whereas one with another subject has different characteristic. In relation to this research, it is necessary to develop a model of pedagogic competence test that will focus on pedagogical competence of Culinary Art on the subject of Food Processing and Servingin Teacher Profession Education (PPG) of Vocational Schools on Culinary Expertise Program.

2. METHODS

The method used in this research was research and development.This model was developed by using the development procedure by Plomp (1997) which consists of: (1) preliminary investigation, (2) design, (3) realization phase, (4) test phase, assessment and revision and (5) implementation. However, implementation phase is not conducted since (1) the research takes a lot of time; (2) the teacher certification system in Teacher Professional Education (PPG) that has been going on nowadays is difficult to enter considering it is a standard government program. The flow of the development procedure from Plomp (1997) can be seen in Figure 1.

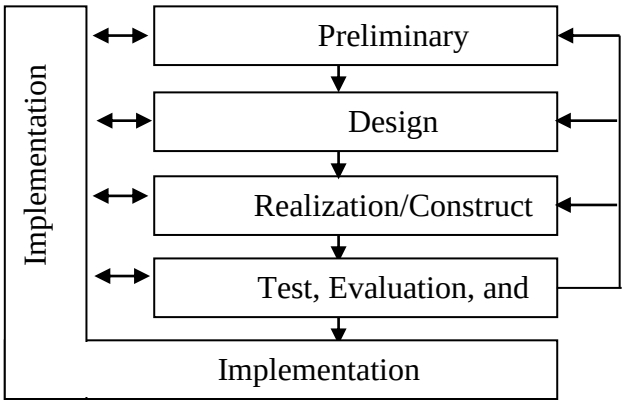

Figure 1.Scheme of Plomp Research and Development Procedures(Plomp, 1997)

This research was conducted in Department of Family Welfare Vocational, Engineering Faculty, UniversitasNegeriSemarang. Research subjects are Family Welfare Education (Culinary Art) students. The product of this research are: (1) model of culinary pedagogic competence (food processing and serving) at Teacher Profession Education of Vocational Schools on Culinary expertise program that fulfills the effective, practical and executed criteria; (2) model tools including model manual, learning/training module and test as well as the

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supporting instruments. Validity test was conducted by 2 experts who assessed the learning/training instruments and tools and test. The level of inter-judgmental expertise on the results of the assessment was analyzed by using Coefficient Cohen's kappa statistics and percentage of agreement.

3. RESULT AND DISCUSSION

At the preliminary investigation stage, information collection was undertaken on: (a) teacher profession education; (b) pedagogic competency indicators; (c) and PPG (Teacher Profession Education) models and Competency Test. This preliminary investigation stage was conducted to analyze the needs of Pedaboga P2M Test Model. The results of preliminary investigation on Teacher Profession Education showed that 100% of respondents agreed on Teacher Profession Education implementation that has been going until now.In addition, 85% of respondents agreed on the need to test the pedagogical competence on food processing and serving subjects in particular.

The analysis result of recapitulation of culinary pedagogic competence indicator (food processing and serving) that will be applied to teacher profession education (PPG) of Vocational School on culinary expertise program showed that 100% of respondents agreed on all indicators to be applied on teacher profession education (PPG) of Vocational School on culinary expertise program on the grounds that every teacher is obliged to master the indicator on each component, as according to the research by Febriana (2016) which states that the component of the training model and its indicators have value of very important category, which means that all the pedagogic components and indicators are very important to be included in pedagogy training model.

In the factual model, if there is further observation on the model of Teacher Profession Education (PPG) in 2016, there are still weaknesses where Teacher Profession Education participants of Family Welfare Vocational Education on Culinary Art program are not given the authority to determine the concentration of specified subjects. In addition, the assessment form of competency test conducted, particularly on the pedagogic competence test is still general thus the assessment is less specific and does not yet cover all pedagogic competence indicators, therefore conceptual model was developed. After the first stage, then it goes further to second stage, i.e.plan/design. In the design phase, model development is embodied in prototype of Pedaboga P2M Test Model in the form of model tools (manual model, learning/training & test module, and research instrument). Furthermore, realization/construction phase generates initial draft as a result of plan/design results in the form of: 1) Pedaboga P2M Test Model guidebook; 2) learning/training and test devices (modules); 3) Expertise checking sheets and assessment rubric (Justification) of Training/Test Participants; 4) Research Instruments. In this phase, the resulted model is then called the initial hypothetical model or prototype which is then validated by asking judgment from experts and educational practitioners on the feasibility of the prototype concept of the developed Pedaboga P2M Test Model. In addition,there is also validation of learning/training device & test and research instruments to be usedwhich finally gneratedthe final prototype of a good P2M Pedaboga Test Model which meets the required practical and effective quality.

Based on the feasibility assessment data of the research instrument conducted, it can be stated that all instruments in the Pedaboga P2M Test model are valid or fit to be used for data filtering of the effectiveness, practicality and

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implementation of Pedaboga P2M Test model. Meanwhile, the analysis results of Cohen's kappa statistic (reliability) showed that all research instruments assessed by the rater is reliable since the reliability coefficient generated on all instruments are above 0.75.

Entering the development phase, then performed by the first expert publication, do the assessment on the guidebook and competency testing device that is implemented 3 times that is on a limited trial (Pra UT), Setelah UT, dan UP (Uji Coba Diperluas) yang tersaji pada Tabel 1. In the development phase, a judgment by expert is carried out i.e. *first*, performing the assessment on the guidebook and competency test device which is implemented 3 times, which are on the limited trial (Pre LT), Post LT, and ET (Expanded Test) as presented in Table 1

Table 1. Assessment Result of Manual Book

No	Aspect	Assessment Result		
		Pre LT	Post LT	Post ET
1	Average	3,06	3,19	3,41
2	Criteria	good	good	good

Second, performing assessment on the competency test tool implemented twice on Pre-Limited Trial and Post Limited Trial which can be seen in Table 2

Table2. Hasil Penilaian Perangkat Uji KompetensiAssessment Results of Competency Testing Tool

Competency Test Kit	Assessment Result		
	Pre LT	Post LT	General Assessment
Learning and test modules	3,31 (good)	3,75 (Very good)	Usable
Expertise checking sheet and assessment rubric for training/test participants	3,36 (good)	4,00 (Very good)	Usable

After the assessment phase on the guidebook and competency test tool is done, it is then followed by the observation of the learning/training participants' behavior during the learning/training and test. The observation on the training participants in the limited trial resulted in good criteria, while it resulted in very good criteria in the expanded trial, as presented in Table 3.

Table3. Observation Results of Learning/Training Participants' Behavior.

Test	Process	Observator's Mean Score		Mean	Criteria
		1	2		
Limited	Learning/Training	3,24	3,44	3,34	Good
	Test	3,42	3,51	3,47	Good
Expanded	Learning/Training	3,55	3,63	3,59	Very Good
	Test	3,62	3,72	3,67	Very Good

The observation of instructor activity during learning/training resulted in good criteria, which can be seen in Table 4.

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Table4. Data Analysis Results of Observation on Instructor's Activities

Test	Observator's Mean Score		Mean	Criteria
	1	2		
Limited	3,20	3,40	3,30	good
Expanded	3,67	3,72	3,50	good

In a research by Ferdhinawan, et al (2015), instructors, or so-called trainers, provide an important role to the progress of traineessince they are the ones who teach the practice directly from the beginning of the process until it finishes. A good instructor can make the implementation of the training effective. It can be seen that the observation results of instructor's activity on Pedaboga P2M Test Model, either from a limited trial or an expanded trial showed good criteria. Meanwhile, the assessment results of assessors on limited trial or expanded trial showed excellent criteria. The observation results are strongly influenced by all the learning elements as proposed by Joyce & Weil namely: 1) Syntax, 2) Social systems, 3) Reaction principles, 4) Support systems, 5) Instructional impacts, 6)Companion Impact.

Table 5. Observation results of Assessor's activities

Test	Observator's Mean Score		Mean	Criteria
	1	2		
Limited	3,45	3,71	3,63	Very Good
Expanded	3,60	3,69	3,64	Very Good

Once the learning/training activity and the test wascompleted, then the effectiveness assessment on Pedaboga P2M Test model was conducted. According to research by Astuti (2015), to see the effectiveness of the model of the evaluation results of the training implementation is by analyzing the evaluation of the training implementation quality in terms of sub-variables in training implementation, which includes: 1) the training form, 2) training programs, 3) training materials, 4) training instructors, and 5) training infrastructure. From the results of the percentage of the model's effectiveness assessment in Table 6,it shows that limited trials was89%, while the expanded trial was 92%.

Table6. Assessment results of the model's effectiveness

Test	Participant	Instructor	Assessor	Mean	
Limited Trial	3,57	3,53	3,57	3,55	89
Expanded Trial	3,60	3,64	3,76	3,67	92

Furthermore, the practical assessment of Pedaboga P2M Test Model presented in Table 7describes that the model's practicality results in limited trial as well as in expanded trial resulted in a mean of 3.50, which belongs to good criteria. This is in line with the theory of practicality proposed by Nieveen (1999),which states that in development research, a developed model is said to

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be practical if the experts stated that theoretically, it can be applied in the field with the level of implementation model categorized as good.

Table7. Assessment Results of Model's Practicality

Test	Participant	Instructor	Assessor	Mean	Criteria	
Limited Trial	3,50	3,50	3,50	3,50	Good	8
Expanded Trial	3,50	3,50	3,50	3,50	Good	8

The implementation result observed by 2 (two) raters or observers on Pedaboga P2M Test model conducted on limited trial showed that the average percentage of the implementation is 85%,while in the experiment, the mean of the percentage is 85%. Overall implementation of Pedaboga P2M model is 86%, thus it can be concluded that the implementation level of the competency test stages is very good.

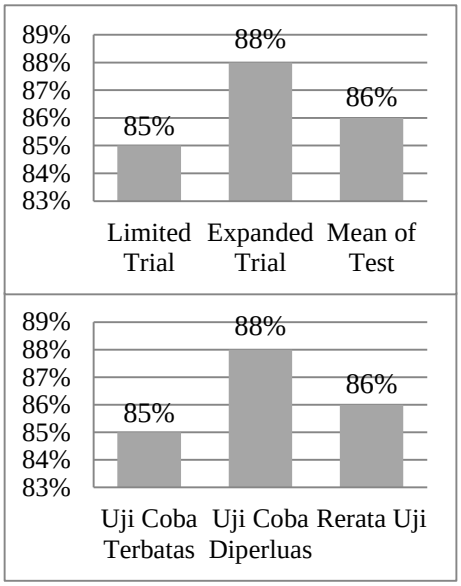

Figure2.Results Data of Model's Implementation

From the research, P2M Pedaboga Test Model is expected to be used as a reference or comparison on the future pedagogical competency test of Teacher Profession Education (PPG) so that the assessment of Competency Test is more specific and can foster the spirit in improving the better pedagogic competence.

4. CONCLUSION

The conclusions of this research are as follows: (1) The development result of Pedaboga P2M Model that is model tools (model guidebook, learning/training & test module, expertise checking sheet and assessment rubric (justification of learning/training participant). Meanwhile, the result of the Model Tool Development is in the form of model guidebook.The results of competency test tools are: a) learning/training & test module belongs to good criteria (mean 3,73), and c) expertise checkingsheet and assessment rubric (justification) test belongs

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to good criteria with an average of 3.62. (2) result of Model Pedaboga P2M Test Instrument Development and the devices is to meet criteria of valid (feasible to use) and reliable (average reliability 0,810). (3) results of Pedaboga P2M Test Model development and its instruments that meet the following criteria: a) effective (mean 92%); b) practicality (mean 87%). (4) developmentresults of Culinary Pedagogic Competency Test Model (Food Processing and Serving) in Teacher Profession Education (PPG) on Culinary Expertise Program (Pedaboga P2M Test Model) and its eligible devices are accomplished with an average of 86%. (5) The P2M Pedaboga Test Model and its developed tools can function well to determine pedagogic competence on Teacher Profession Education of Culinary Expertise program.

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