



## The Analysis of Vocational Teacher Readiness at Culinary Education Program in Participating in Online Professional Teacher Education Program

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### Article Info

Article History:  
Received January 2018  
Accepted February 2018  
Published June 2018

Keywords:  
Teacher Preparedness ,  
Teacher Professional  
Education, Online.

### Abstract

This study aims to: (1) describe the readiness of vocational school teacher of culinary program in the implementation of online - based Professional Teacher Education (PTE); (2) find factors driving and inhibiting the readiness of teachers in the implementation of online – based PTE. This quantitative descriptive study was conducted at SMK N 6 Semarang (Tourism Vocational School) and SMK N 1 Bawen (Agricultural Vocational School) involving 14 productive skill teachers of the Culinary Program. The data were obtained using questionnaires and analyzed descriptively using percentages. The results of the study were: 57% of teachers had very high readiness, 36% were high and only 7% had sufficient readiness. The factors supporting the readiness of productive teacher skill at culinary program during the implementation of online – based PTE are facilities and infrastructure (79%), Knowledge on the field of culinary program (86%), pedagogical competence (79%), personal competence (86%), social competence (86%) and professional competence (93%). Factors inhibiting the readiness of the online – based PPG is the computer literacy (57%) and networking access (64%). It was concluded that teachers have a high readiness in the implementation of online – based PTE. Factors supporting the readiness of the online PTE are infrastructure, the knowledge, pedagogical competence, personal competence, social and professional competence. The inhibiting factor is the ability to operate a computer and access the network.

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p-ISSN 2339-0344  
e-ISSN 2503-2305

## INTRODUCTION

Vocational program is now a program launched by the government with the issuance of Presidential Instruction Number 9 of 2016 concerning revitalization Vocational High School (SMK) to improve the quality and competitiveness of Indonesian Human Resources (HR). One focus of the vocational revitalization program is educators and education personnel, especially teachers who are the main of educational success with the presidential instruction to the minister of education and culture to increase the number and competence of educators and education staff at the vocational school.

To improve the competence of teachers, the government implemented the professional teacher education program (PTE). This was driven by the low number of professional teachers in vocational schools, especially in the culinary skill programs. The teacher certification indicates the professional teachers. The teacher certification for teachers is obtained through professional teacher education programs organized by universities that have accredited educational staff procurement programs, both organized by the Government and the Community and established by the Government (PP No. 74 of 2008).

The aim of the competency test is to assess and determine whether the test participants are competent or not for the standards competency (Dharma, 2013: 274). Competency tests are used to measure the subject matter and pedagogic competencies in the domain content of the basic competency of the field of the study tested in accordance with the field of certification study. There are at least two teacher competencies tested in the Teacher Competence Test, namely professional and pedagogic competencies (Dharma, 2013: 302). In addition, teacher competency test is also used as a mapping for capacity building and improving the quality of education.

Along with the development of technology, the PTE model also underwent a change, with the adoption of an online PTE model. In contrast to the previous PTE program where meetings were held face-to-face from the registration stage to the peer teaching stage, the online - based PTE program was conducted online starting from the registration stage, uploading registration requirements, performing the required assignment, and downloading material. All stages in the online – based PTE Program require the participants to have the computer literacy and master the latest culinary knowledge.

One of the goals of the online – based PTE program is quickly spreading the PTE program in Indonesia. The conventional PTE program only focuses on Java because currently there are more teachers available on Java. As a result, the PTE participants from outside Java cannot participate in this program. However, the online PTE model requires fast internet access and the computer literacy. The fast internet access is not evenly distributed throughout Indonesia. Only few teachers are skilled in operating a computer, while online PTE model has started. Therefore, it is necessary to investigate the readiness of culinary program teachers in online – based Professional Teacher Education program (PTE).

This study aims to: (1) describe the readiness of vocational school teachers in culinary programs in the implementation of online – based professional teacher education (PTE) ; ( 2) find the contributing factors and obstacles to teachers' readiness in implementing online PTE.

## METHODS

This study employed descriptive study with a quantitative approach. Azwar (2012: 5) suggests that a quantitative approach emphasizes its analysis on numerical data processed by statistical methods. Descriptive research aims to describe facts systematically and accurately and characteristics regarding a population or a particular field (Azwar, 2012: 7).

The population in this study was fourteen productive skill teachers of culinary program in SMK N 6 and SMK 1 Bawen (Agricultural Vocational High School). This study employed a population research or census.

Below is presented Table 1. Which describes the aspects assessed by expert experts.

**Table 1.** Aspects Assessed by Expert Evaluators

No	Aspects being rated
1	Using Bahasa in accordance with Enhanced Spelling (EYD)
2	Simplicity of Structure Sentence
3	The logical sequence of the statements
4	Number of logical statement items to be answered by the teacher
5	Suitability of statement aspects with the aims of the study

Below is presented in Table 2. about the assessment criteria conducted by expert validators. The criteria consist of invalid, less valid, valid, and very valid.

**Table 2.** Assessment Criteria By Expert Validator

Validator	Aspects					Score (%)	Criteria
	1	2	3	4	5		
Rodia Syamwil	4	4	4	3	4	95	Valid
Dwi Wijanarko	3	4	3	3	4	85	Valid
Eko Suprpto	3	3	3	4	3	80	Valid
Average Score						87	

The results of expert validation analysis can be seen in Table 3.

**Table 3.** Expert Validation Test Results

Validator	Aspects					Score (%)	Criteria
	1	2	3	4	5		
Rodia Syamwil	4	4	4	3	4	95	Valid
Dwi Wijanarko	3	4	3	3	4	85	Valid
Eko Suprpto	3	3	3	4	3	80	Valid
Average Score						87	

Table 3. shows that the average score of the expert validity is 87 at 81.26 -100 interval, in the category very valid.

The aspects in this study are the analysis of the readiness of culinary program teachers at the vocational schools participating in the online – based Professional Teacher Education (PTE) program. The factors examined include internal factors consisting of the mastery of Information and Communication Technologies ITC, Knowledge in the field of culinary studies, mastery of pedagogic competencies, personality competencies, social competencies, and expertise competencies.

The data were collected in this study using a questionnaire and analyzed descriptively in percentage.

The criteria for determining the level of readiness of teachers in following online PTE are prepared in table 4.

**Table 4.** Teachers' Readiness Criteria for Following PTE Online

No	Interval	Criteria
1	81 – 100	Very high
2	61 – 80	High
3	41 – 60	Sufficient
4	21 – 40	Low
5	0 – 20	Very low

## RESULT AND DISCUSSION

In general, the readiness of the vocational school teacher in online – based PTE was categorized as very high, as seen from the frequency distribution as shown in Table 5.

**Table 5.** Frequency Distribution Teacher Readiness in PPG *Online*

No	Interval	Criteria	f absolute	f relative (%)	f cumulative (%)
1	81 – 100	Very high	8	57	57
2	61 – 80	High	5	36	93
3	41 – 60	Sufficient	1	7	100
4	21 – 40	Low	0	0	100
5	0 - 20	Very low	0	0	100
Total score			14	100	

Where :

f absolute : Absolute frequency

f relative : Relative frequency (%)

f cumulative : Cumulative frequency (%)

Table 5 . shows that 57% of teachers have very high readiness, 36% of the teachers are classified as high and 7% are quite sufficient. Readiness of teachers in online – based PTE can be seen from eight aspects, namely infrastructure, a computer mastery, network access, Subject matter mastery, pedagogical competence, personal competence, social competence, professional competence.

Supporting factors for teachers' readiness to participate in online - based Professional Teacher Education programs can be seen from the results of the questionnaires on Table 6.

Table 6. shows that there are six supporting factors of the readiness of vocational school teachers to participate in the online PTE program, namely facilities and infrastructure (79%), subject matter mastery (86%), pedagogic competence (79%), personality competence (86%), social competence (86%) and professional competence (93%).

Inhibiting factors for teachers' readiness to participate in the online PTE program can be seen in Table 7.

Table 7. shows that the inhibiting factors of the readiness of vocational school teachers to participate in online PTE are computer mastery (57%) and network access (64%).

The results of study conducted in SMK N 6 Semarang and SMK N 1 Bawen showed that the level of readiness of teachers in participating in online PTE is very high. 57% of teachers have very high readiness and 36% are high. The very high readiness can be seen from the readiness of facilities

and infrastructure, readiness in the subject matter, pedagogic, personality, social and professional material.

**Table 6.** Supporting Factors for online - based Professional Teacher Education Program

No	Supporting Factors	f absolute	f total	f relative (%)
1	Infrastructure	11		79
2	A computer mastery	6		43
3	Network access	5		36
4	Subject matter mastery	12	14	86
5	Pedagogical competence	11		79
6	Personal competence	12		86
7	Social competence	12		86
8	Professional competence	13		93

**Table 7.** The Inhibiting Factors of the Teachers' Readiness Factors Following PPG *Online* Program

No	Supporting Factors	f absolute	f total	f relative (%)
1	Infrastructure	3		21
2	A computer mastery	8		57
3	Network access	9		64
4	Subject matter mastery	2	14	14
5	Pedagogical competence	3		21
6	Personal competence	2		14
7	Social competence	2		14
8	Professional competence	1		7

Where:

f absolute : Absolute frequency

f total : Frequency total

f relative : Relative frequency (%)

The implementation of the online – based PTE a set of computers connected on the internet. The computer connected to the internet is the supporting infrastructure which must be owned by the participants of the online PTE. The results showed that the level of readiness of teachers from the aspect of facilities and infrastructure is already very high. The level of readiness of vocational schools teachers in urban areas and suburbs is not significantly different. The development of information technology is followed by changes in the teacher. Most teachers use of computers as supporting facilities and infrastructure in learning, as evidenced by the majority of teachers studied having personal computers or laptops that can be used. In addition, the school also provides a laptop or computer and wifi that can be utilized by the teacher. Even at home, the majority of teachers also

have wifi access for the internet access. The data showed that computer facilities and infrastructure owned by teachers and schools supported the readiness of teachers to participate in online PTE.

The rapid development of information technology has brought changes to the way teachers work. The demands of this age require the teacher to be able to operate the computer, using applications on the computer. Based on the data, the majority of teachers are able to operate the Microsoft Word, Excel and Powerpoint. Those are the familiar applications for teachers, because the school demands the collection of learning tools in printed and file forms. The teachers have mastered the applications inside the computer. The development of information technology also brings about changes in the way teachers work by utilizing information technology to communicate, the interests of learning, self-development and learning in accordance with the areas of expertise being taught. 43% of teachers have very high ability in operating the computer. 21% of the teachers are classified as high in operating a computer. Even between teachers in urban and suburb have abilities that are not significantly different. This condition has become a supporting factor for the readiness of teachers to attend online professional teacher education program.

The readiness of teachers to access the network was still sufficient with an average of 48.2. Based on the data, only 50% of teachers are able to use e-mail, have their own e-mail, actively use e-mail and are able to send documents via e-mail. Accessing journals as a learning resource is also still relatively low, with only 21% of teachers are able to access journals, find learning resources through journals, download journals and use journals as learning resources. Only 21% of teachers are able to access e-books, find learning resources through e-books, download e-books and use e-books as learning resources. The data illustrates that although teachers have computer, internet facilities and they are also able to operate computers, and their applications, most teachers have not been able to utilize the internet networks such as journals and e-books as learning resources. On the one hand, completing the tasks given at online PTE required more use of the internet to search for literature as a source of learning in completing tasks. This condition showed that the ability to access the network is an obstacle to the readiness of teachers to participate in online PTE. The results of this study is corroborated by Syukur (2014) which concluded that 62.15% teachers rarely use ICT in learning.

The readiness of teachers in the mastery of the subject matter has been classified as very high with an average of 87.5, which means that the majority of teachers have mastered the subject matter in culinary field, are able to develop subject matter in culinary field, find additional references from the internet and other media and discuss with other teachers to increase knowledge about culinary. This very score on readiness of the subject matter is caused by the majority of teachers already having long experience in teaching, the majority of civil servant teachers are aged between 51-60 years. From his age, it shows that the teacher has long experience in teaching in the culinary program which shows his mastery in the field of culinary. These data showed that mastery of the subject matter in the field of culinary is a supporting factor in the readiness of teachers to attend the online professional teacher education. The tasks given through the website are also related to the material according to areas of expertise. Therefore, the teachers were more ready to participate in the online professional teacher education program from the aspect of the subject matter.

The readiness of the teacher regarding pedagogic competence is also very high with an average of 80.4. The high pedagogical competence is shown by 64% of teachers mastering the characteristics of students from physical, moral, spiritual, social, cultural, emotional and intellectual aspects. Even so, only 42% of teachers have mastered learning theory and the principles of learning that educate. 57% of teachers are able to develop curriculum related to culinary subjects. 64% of teachers are able to organize learning that is educated because they understood the principles of learning design, develop components of learning design, compile a design of learning with ease and are able to carry out learning in the classroom, laboratory and in the field by taking into account the required safety standards. 71% of teachers have the ability to communicate effectively, empathetically and politely with students because they used language that was easy to understand by

students and friendly, provided opportunities for students to express themselves politely, motivated the students to convey ideas and provided opportunities for the discussion with students. 64% of teachers are able to conduct assessment and evaluation of learning processes and results by understanding the principles of assessment, determining aspects of the process and learning outcomes that are important to be assessed, determining assessment procedures and developing good assessment instruments. However, only 29% of teachers are able to take reflective actions to improve the quality of learning. The only few teachers have reflected on learning, used the results of reflection to improve their teaching quality, to develop learning and conduct classroom action research to improve the quality of learning. From the pedagogical aspect, the productive teachers on the culinary program have a very high readiness as a supporting factor of the readiness to participate in the online professional teacher education program.

-The readiness of the vocational school teachers from the personality aspect can be categorized as very high because the average score was 90. 71% of teachers are able to behave morally and have faith, respect and promote the principles of Pancasila, have a sense of unity and unity as an Indonesian nation and have a broad view of the diversity of the Indonesian as a nation. 71% of teachers are able to behave honestly, firmly and humanely, behave reflecting piety and noble character, capable of behaving that can be imitated by students and able to behave that can be exemplified by members of the surrounding community. 64% of teachers are able to demonstrate a strong, stable, mature, wise and authoritative person. 64% of teachers were able to demonstrate work ethic, high responsibility, a sense of pride in being a teacher and confidence. 64% of teachers uphold the code of ethics of the teaching profession that is guiding students to become a fully functional human being, possessing and implementing professional honesty, trying to process information about students as material for guidance and carrying out all government policies in the field of education.

The readiness of teachers to participate in online professional teacher education in social competence is classified as very high with an average of 88.8. 71% of teachers were inclusive, acted objectively, and were not discriminatory on the students' gender, religion, race, physical condition, family background and socioeconomic status. 57% of teachers communicate effectively, empathetically and politely with fellow educators, education personnel, parents and the community. 71% of teachers are able to communicate with the professional community themselves and other professions verbally and in writing or in other forms.

The readiness of the vocational school teachers in participating in the online professional teacher education from the aspect of professional competence is very high with an average of 85.7. 64% of teachers have mastered the standards and basic competencies of the subject matter being taught. 64% of teachers have the ability to choose learning material creatively in accordance with the development of students, processing material creatively, connecting material with life and enriching material from various sources. However, only 50% of teachers who have the ability to reflect on their own performance continuously, utilize the results of reflection to increase their professionalism, are able to conduct classroom action research to improve professionalism and be able to follow the progress of the times by learning from various sources.

## CONCLUSION

The readiness level of productive teacher in culinary program to participate in the online Professional Teacher Education is very high. 57% of teachers have very high readiness, 36% are high and only 7% have sufficient readiness. The facilities and infrastructure were categorized as Very high (82.1 % ), operating a computer (73.2 % ), subject matter mastery (87.5 % ), pedagogic competence (80.4 % ), personality competence (90 % ), social competence (88.8 % ) and professional competence (85.7 %).

The supporting factors for online Professional Teacher Education for productive teachers in culinary skills competencies, namely the availability of facilities and infrastructure (79%), ability in the area of expertise (86%), pedagogic competence (79%), personality competence (86%), social competence (86%) and professional competence (93 %). The inhibiting factor of online professional teacher education is to operate computers (57%) and access the network (64%).

## **ACKNOWLEDGMENT**

Acknowledgments addressed to: Dr. Yeri Sutopo M.Pd, MT, as The Head of the Vocational Education Program. Dr. Ir. Rodia Syamwil, M.Pd; Dr. Eko Suprptono, M.Pd; and Dr. Dwi Wijanarko, S.Pd., ST., MT, as the instrument Validator. The productive skill teacher at the culinary education program at SMK N 6 Semarang. The productive skill teacher at the culinary education program at SMK N 1 Bawen.

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