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The Implementation of Policies in Developing Four Dimensions of Teacher's Professionalism

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Abstract
Teacher professional development program covers four dimensions of competence namely Content Knowledge (CK), Pedagogical Knowledge (PK), Pedagogical Content Knowledge (PCK) and Teacher Career (TC). This article aims at describing the implementation of government policies in developing teacher's professionalism that contributes to the four dimensions of teacher's competence. 132 teachers of various school levels in the province of Lampung were involved in the research to uncover their perceptions on the implementation of government policies in developing teacher's professionalism that contributes to the four dimensions of competence. Based on Chi-Square Tests analysis, the implementation of government policies in developing teacher's professionalism has significantly contributed to CK and PK with the significance level of 0,03 and 0,03 respectively. However, the implementation of policies in developing teacher's professionalism has not been able to increase the level of PCK (0,294) and TC (0,089). In other words, review and reconsideration are necessary in the implementation of government policies in developing teacher's professionalism to have positive and significant impact on the increase of PCK and TC.
Keywords: Policy implementation; teacher's professionalism; teacher career

INTRODUCTION

Indonesian government realizes the necessity to solve the issues on teacher's professionalism. A few policies have been developed in Indonesia to improve teacher's professionalism qualities both in quality improvement and teacher qualification improvement. Policies in developing teacher's professionalism tend to be centralistic, which means that the majority of the programs are originated from central government, and teachers merely act as the object of the programs (top down). Therefore, it is inevitable that the policies have not impacted significantly on teacher's professionalism. The majority of teachers (more than 90%) are categorized incompetent or less competent [1]. In other words, government policies in developing teacher's professionalism need a review.

This article aims at exploring how policies in developing teacher's professionalism impact on four dimensions of teacher's competence namely Content Knowledge (CK), Pedagogical Knowledge (PK), Pedagogical Content Knowledge (PCK), and Teacher Career (TC). Information from 132 teachers from various school levels in the province of Lampung show that government policies in developing teacher's professionalism has variably impacted on the four dimensions. The implementation of policies in developing teacher's professionalism gains more positive appreciations from teachers in terms of CK and PK compared to the other policy components (PCK and TC). This means that the implementation of government policies in improving content and pedagogic competence is sufficient. Nevertheless, policies in Pedagogical Content Knowledge and teacher career competence need to be reviewed because the results of the implementation of both competences have not shown significant contributions to teachers.

Research problem of this paper is how policies in developing teacher's professionalism impact on the four dimensions of teacher's competence namely Content Knowledge (CK), Pedagogical Knowledge (PK), pedagogical content knowledge (PCK), and Teacher Career (TC).

LITERATURE REVIEW

CK, PK, PCK and TC

Teacher's competence on content and pedagogic knowledge or both has become an important aspect to consider in teacher professional development program. In addition, it is necessary to use a proper instrument to measure teachers' Recognition of Prior Learning in order that teacher professional development program is well targeted and able to improve teacher's competence in CK, PK and PCK. Ideally, teacher's competence in the three aspects should be balanced.

CK or teacher competence in content knowledge in the subject that he/she teaches is defined as teacher's knowledge in subject area that covers theories, ideas, constructs and application towards a particular knowledge content [2]. The lack of capability in content knowledge may cause misconception or misleading of the subject taught by a teacher in class. As a result, teacher's knowledge in content should be adequate as it will influence the depth of the taught subject.

PK or teacher's knowledge in pedagogy is defined as teacher's capability in fulfilling the necessities in

teaching and learning process in the classrooms. In other words, it is how a teacher transfers his/her content knowledge to the students including the knowledge on individual learning needs, proper learning methods and strategies, as well as knowledge related to classroom management, lesson plans and assessment on learning results [3].

The combination of teacher's knowledge in learning content and competence in transferring the knowledge to the students is defined as pedagogical content knowledge (PCK). The concepts of PCK were first introduced by Shulman as a strategy to represent and formulate content knowledge (CK) and how to make the content (PK) understood by students [4] [5]. Combining content knowledge (CK) and pedagogical knowledge (PK) is called pedagogical content knowledge (PCK). In short, pedagogical content knowledge is the answer to the questions: why to teach, what to teach, learning difficulties, and how to teach [6].

Sahin reveals that there is a need to balance teacher's competence in the three aspects and the need of balance between content, pedagogy and content pedagogy that give significant contribution towards students' learning activities in the classrooms [3]. If teacher professional development only focuses on one of the domains, discrepancy will occur in teacher's competence. The three domains of knowledge should be treated equally in teacher professional development activities as shown by the results of research done by Koehler and Niess [2] [7].

Other than concerning the three domains of knowledge in designing a teacher professional development program, another important thing to consider in developing teacher professionalism is teacher career development [8]. Career is an important aspect in maintaining teacher's motivation to develop teacher professionalism consistently and continually. A research by Goldhaber et. al. found that a well conditioned teacher career development pattern will bring about positive impacts towards learning qualities in the classrooms. Further, it will be associated with teacher's effectiveness, quality and productivity as the main actor in learning activities.

METHODS

132 teachers of various school levels comprising both public and private elementary schools, junior high schools and senior high schools in Lampung were involved in the research. Research subjects were taken from various backgrounds (see Table 1). Samples were taken with purposive random sampling technique. This technique is included in probability sampling method with a particular purpose based on the factors related to the research focus [9].

Table 1. Respondents' characteristics

N total	*Gender*		*Education*			*Service Duration*	
132	Male	Female	Elementary School	Junior High School	Senior High School	>10 years	<10 years
	57	75	48	48	36	89	43

Data were collected through survey method with cross sectional design using close-ended questionnaire. The instrument was used to explore teacher's perception on teacher professional development program so far, both pre-service and in-service programs, especially on policies of teacher professional development in Indonesia in relation to Content Knowledge, Pedagogical Knowledge, Pedagogical Content Knowledge, and Teacher Career.

The instrument was a questionnaire consisting of 20 questions in Likert scale with the score ranging from 1 to 3 that show perceptions of no to adequate respectively. Previously, instrument reliability test had been done to a number of teachers using Cronbach Alpha with the total of 0,907, which means that the instrument is highly reliable. Data analysis was done descriptive narratively and using Chi-Square Tests to see the comprehensive contribution of education policies that have been done by central or regional government towards the behavior or factors of teacher professional development.

RESULTS AND DISCUSSION

Based on Chi-Square analysis (see Table 2), it is shown that teachers in Indonesia feel that government efforts have provided good support in improving teacher's mastery of subject area. This has been felt since they attended teacher training programs in universities or pre-service programs. Teacher perceptions indicate that policies in pre-service program curriculum development policies support subject area or content knowledge mastery. Similarly, the training in the in-service programs is well perceived as a part of teacher professional development policies, including teacher's book supply program to accompany the implementation of 2013 curriculum.

This result is supported by another research result that found that content knowledge mastery is the heart of teacher's existence in the classroom that determines learning process as knowledge and content structure organization is an absolute requirement of classroom learning process [5] [10] [11]. They also stated that almost

all countries are good at preparing teachers in Content Knowledge mastery.

Table 2. Chi-Square Tests Content Knowledge *TPD Policy

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.268[a]	4	.006
Likelihood Ratio	12.631	4	.013
Linear-by-Linear Association	8.856	1	.003
N of Valid Cases	132		

a. 1 cells (11.1%) have expected count less than 5. The minimum expected count is 4.09.

In terms of pedagogical knowledge improvement both during *in-service* and *pre-service* programs, it is shown that teachers master teaching knowledge sufficiently. The stone theories of curriculum and learning innovation, including cognitive psychology knowledge about student characters, have been perceived comprehensively both during their teacher training education program and in-service training program. Table 3 shows that based on teacher's perceptions, educational policies in developing teacher's pedagogical knowledge in Indonesia have been done in the proper way. This is in line with Chang's research that teacher professional development policies in Indonesia have some weaknesses that need to be improved [1].

Table 3. Chi-Square Tests Pedagogical Knowledge*TPD Policy

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.483[a]	4	.014
Likelihood Ratio	11.513	4	.021
Linear-by-Linear Association	4.633	1	.031
N of Valid Cases	132		

a. 1 cells (11.1%) have expected count less than 5. The minimum expected count is 4.36.

Nevertheless, teachers found a massive challenge in delivering subject material in order to result in meaningful learning and gain student achievement. Even though Content Knowledge and Pedagogical Knowledge are very good, a number of education reform policies in Indonesia have not been able to increase pedagogical content knowledge (PCK) mastery. Table 4 shows that teachers' perception in PCK mastery is not supported by proper policies in teacher professional development program so far.

Table 4. Chi-Square Tests PCK*TPD Policy

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.283[a]	4	.684
Likelihood Ratio	2.229	4	.694
Linear-by-Linear Association	1.103	1	.294
N of Valid Cases	132		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.59.

This indicates that the interrelated stakeholders, especially in programs to deliver subject materials into interesting and meaningful lessons for students, have not provided teachers' activities at schools with intensive guidance. Results of researches in a few countries also show that teacher PCK development program has become one of main programs in teacher professional development program. Shulman confirms that teacher preparation program should be able to prepare teachers with the ability to combine Content Knowledge and Pedagogical Knowledge in order that content knowledge is presented more interestingly and more easily understood by students [5].

The interesting result of the research is that educational policies have not been very supportive towards teacher career. This can be seen in table 5 which shows that the relation between programs and policies of teacher professional development and teacher career is not significant. Hence, the development of in-service programs for teachers has not prepared teachers well in improving teacher career achievement in schools, especially the achievement of academic writing which is a requirement to gain career in a higher level. In this case, a few research results show that the ability to produce academic writing is a particular challenge for teachers in achieving their career.

Table 5. Chi-Square Tests Teacher Career*TPD Policy

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.232[a]	4	.376
Likelihood Ratio	4.309	4	.366
Linear-by-Linear Association	2.894	1	.089
N of Valid Cases	132		

a. 1 cells (11.1%) have expected count less than 5. The minimum expected count is 3.48.

Policies of teacher professional development as explained above have significant impact towards the four dimensions of teacher's competence. So far, the policies have only impacted on content knowledge (CK) and pedagogical knowledge (PK). They have not significantly impacted on pedagogical content knowledge (PCK) and teacher career (TC). This means that the implementation of government policies in improving content and pedagogical knowledge is sufficient. However, policies in pedagogical content knowledge and teacher career need a more serious concern from the government so that the policies of teacher professional development can yield optimum result for teachers.

CONCLUSION

Indonesian government has organized a few efforts in implementing policies in relation to teacher professional development that covers four dimensions of teacher competence namely Content Knowledge (CK), Pedagogical Knowledge (PK), pedagogical content knowlegde (PCK) and Teacher Career (TC). The research finds that the implementation of government policies in teacher professional development has contributed to the four dimensions of teacher competence. Nevertheless, the achievement of balance in the four dimensions of teacher competence should be government's serious consideration in formulating future policies in relation to teacher professionalism.

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