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The Effect of The Education and Training Program of Continuous Professional Development Program of In On In Modes on Pedagogical and Professional Competence of Teachers in Kendal

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Abstract

Teacher professional development training is carried out by the government to improve the pedagogical and professional competence of teachers in learning KK A and B modules through in on in mode. This study has the purpose of determining the effect of the continuous professional development of in on in mode toward the pedagogical and professional competence of the elementary school teachers in Kendal Regency. This study was conducted using quantitative research methods of experimental post-test only control design t-test. The experimental group was given treatment, and the control group did not participate in the continuous professional development program in on in model, which was then given a post-test with the same questions. The results showed that there were differences in the pedagogical competencies with a significant value of 0.002 and differences in professional competence with a significant value of 0.001. Based on these results, it can be concluded that the continuous professional development program in on in mode affects the pedagogical competence. However, it does not affect professional competence. By increasing the teacher competence, it will affect the quality of the world of education for students, schools, a country in general and personal matter of teachers in particular. Training that can measure the results of activities based on their preparation, process and evaluation that can improve teacher competence in the field of linguistics needs to be carried out.

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INTRODUCTION

Teacher professional comes from the teacher's practical knowledge that is built from experience in practice. A teacher is a person who can have a permanent dialogue with the researcher, policymakers, school administrators, teacher as educators, etc. who produce good insights (Beijaard, Meijer, and Verloop, 2004).

Professional skills of teachers are the ability to plan, implement, and evaluate learning on an ongoing basis — teacher training programs to improve teacher competency and performance in schools. The teacher is a combination of personal, scientific, technological, social, and spiritual competencies that fully form the teacher's professional competency standards, which include mastery of the material, understanding of students, educated learning, personal development, and professionalism. (Yusnita, Eriyanti, Engkizar, Anwar, Putri, Arifin, and Syafril, 2018).

Continuous Professional Development (PKB) for teachers is carried out according to the needs of teachers to achieve professional competency standards and increase their competence above their professional competency standards (Utomo, Widodo, Supartono, and Haryono, 2013). PKB activities vary, namely: (a) the dimension of self-development that is by participating in functional education and training activities and participating in collective activities of teachers, (b) the dimensions of scientific publications, namely presentations at scientific forums, scientific publications on research results or innovative ideas, and publication of textbooks, test books and/or teacher guidelines, (c) the dimension of innovative work that is finding scientific works, finding/creating artworks, making/modifying teaching tools/teaching aids, and following the preparation of standards, guidelines, questions and the related matter (Wijaya, and Sumarno, 2017).

The teacher has high self-efficacy when he attends professional development workshops (Lee, Cawthona, and Dawson, 2013) the type of teacher training and teaching experience influences the teacher's efficacy (Johari, 2013).

Davila, Suleiman, Mghamba, Rolle, Ahluwalia, Mmbuji, de Courten, Bader, Zahniser, Krag, and Jarrar (2015) showed that the training applied was well-received, demonstrated by an increase in knowledge skills and self-efficacy, behavioral and institutional changes in the workplace as well as organizational change. Rahman, Jumani, Akhter, Chisthi, and Ajmal (2011) stated that there is a significant relationship between teacher training and student performance.

Zuzovsky (2003) states the intensive participation of teachers in pedagogically oriented professional development activities focusing on content. Habibi, Samsudi, Raharjo, and Rusdarti (2016) there is an influence of school organizational culture, compensation, and pedagogical competence on teacher performance.

Research conducted by Repi (2017) showed positive reactions and increased trainee knowledge and new experiences that stimulate changes in behavior from supervisors. The management training learning model applied to teachers has not been well managed, without an initial needs analysis, and is mostly done by private providers. There are only a few pieces of training conducted by the government, but most are only from top to bottom to succeed the government program, most are too much administration, and without adequate evaluation (Utomo, Widodo, Supartono, and Haryono, 2013).

Florentinus (2016) shows that the most urgent component needed in training is the objectives of the training program, the relevance of the training material and the media used by the instructor, to get appropriate training for elementary school teachers. Kustiono, Ekosiswoyo, Mantja, and Soesanto (2013) in the Design of ICT training models shows that the Innovative Dick-Carey (IDC) model was developed by combining the Dick-Carey, BPTKIP, and LPMP models, as the final model results, through the t-test, the IDC training model was very effective in improving teacher performance in the learning process.

Sulistyorini, Hardjono, and Yuyarti (2014) showed that through training, teachers obtain

additional knowledge which can later be used to be applied in the teaching place so that students can learn more meaningfully and fun. Anif, Sutama, Prayitno, and Idrus (2019) showed that the mechanism and procedure of activities to develop the biology teacher's pedagogical competencies in the post-certification program in Surakarta through MGMP were: MKKS (Principal Work Meeting) or a network association of school principles starting coordination with the district education office, biology MGMP holds a meeting to design programs and activities for one year with guidance from supervisors and the MGMP board, MKKS or MGMP coordinator authorizes programs and activities that are designed, the implementation of needs-based activities, determination of resource persons, and evaluation to get feedback for programs and activities in the following years.

Rahman, Jumani, Akhter, Chisthi, and Ajmal (2011) also had a significant relationship between teacher training and student test results, Dorry (2016) training in CPR positions had a beneficial effect on all four levels of the Kirkpatrick model for nurses. Piryani, Dhungana, Piryani, and Neupane (2018) showed that the level of confidence felt by the participants was reported to increase after the teacher training workshop.

Schmidt, Baran, Thompson, Mishra, Koehler, and Shin (2009) Kirkpatrick model provides a technique for evaluating evidence for each training program that can be used to assess whether or not a training program meets the needs and requirements of the organization implementing the training and participating staff.

Amiruddin, Zakaria, and Arvianita (2018) stated that there was a significant relationship between education and training (X) with professional teachers (Y). Wijaya, and Sumarno (2017) wrote that PKB training conducted by PPPPTK Mathematics had not had much impact on the change in alumni behavior.

The obstacles and Effectiveness of the Kendal District School Principal Professional Development Training Program shows that: (1) the KS/M PKB program has not been effective because participants have not been 100% satisfied, (2) there has not been a significant increase in learning outcomes for the PK/KS PKB program participants, (3) the KSB/PKB program has not been successful because the participants have not applied the knowledge learned during the training, (4) the impact of the PKB KS/M program has an impact on improving knowledge, improving the quality of learning, and improving student and teacher achievement (Damayanti, Khoiriyah, and Purwanto, 2016). According to Yurnaningsih (2012) the Principal leadership and training experience affect professional competence.

Zheng, Huang, and Yu (2013), Widiyastuti, and Purwana (2016) show that training enhances the skills of trainees. Based on interviews with mentors, the participants of PKB in on in mode and their school principals, teachers need education and training that can improve competencies that will help the learning process and student learning outcomes.

Based on the relevant research, this research is important to study. Many self-development activities carried out but sometimes can not produce a program that can measure the success of the program. The purpose of this study was to determine the effect of PKB in on in modes Program training on the pedagogical and professional competence of Kendal District Primary School teachers. Through this research will be able to open the program planning, implementation, and evaluation and provide an ideal training model that can improve the competence of participants and measure the success of the training program held.

METHODS

This study applied an experimental research design method. This study used a mix method approach. According to Creswell (2014) a mixed research method is a research approach by combining qualitative research with quantitative research. The research design used was the post-test only control design. The population of this study was the primary school teachers in Kendal Regency in 7 districts area,

four sub-districts in the experimental group with the population of 80 samples from 65 people from Brangsong, Pegandon, Selo and Kendal City Districts. The control group consists of 80 population of 65 samples from 3 districts of Boja District, Limbangan District, and Singorojo District. Probability sampling technique using Krejcie, R. V and Morgan, D. W sampling tables as stated by Stephen Isaac, and Michael, W. B. (1983) from a population of 80 with an error rate of 5% found a sample of 65 people (Sugiyono, 2004).

The research instruments were based on a theoretical study that has been done before. Based on theoretical studies, the dimensions and indicators of the study are then determined, which are then outlined in the instrument lattice and then elaborated in several statement/ question items (Wijaya, and Sumarno, 2017). The data collection technique used was a Competency Group (KK) material test kit in the form of multiple-choice questions. The test kit sheet contains a mixture of pedagogical and professional competencies covered by the KK module A. Testing of construction validity was done by factor analysis, the validity of each item in the instrument was interpreted by correlating the item score with the total score (Y). After testing the validity of the instrument obtained valid data of 25 out of 30 questions. The reliability test 0.960 reliable questions. The data analysis techniques using the normality test, homogeneity test, and t-test.

The structure of the instruments used in the study is included in table 1.

Table 1. The Structure of Instrument of KK A

Aspect	Indicator	Theory
Pedagogic	Mastering students 'characteristics from physical, moral, social, cultural, emotional, and intellectual aspects as well as facilitating the development of learners' potential to actualize the various potentials they have	Libert Paulus, and Strauss; Piaget, Hurlock, Shapiro, Peter Salovey, and John Mayer; Desmita, Makmun Kohlberg
Professional	Examining the field of skills and knowledge of learning Indonesian for elementary school teachers	Variety of language, language acquisition theory, spelling, syntax, semantic, discourse

RESULTS AND DISCUSSION

Pedagogic competence and professional competence of teachers can be seen from the results of the post-test. Based on the following data of normality test analysis, homogeneity test, and t-test.

Table 2. Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statist ic	df	Sig.	Statistic	df	Sig.
pedagogic	.102	65	.090	.971	65	.132
Professional	.101	65	.097	.975	65	.208

Lilliefors significance correction

From table 2, the normality test obtained was 0.132 on pedagogical competence and 0.208 on professional competence in a normal distribution with a significance test greater than 0.05.

From table 3, pedagogical competence obtained a significant value of 0.998, which is greater than 0.05. Therefore, it can be concluded that the variance of the two groups (experimental and control) is homogeneous or at (the same) variance.

Table 3. Test of Homogeneity of Variances

Pedagogic

Levene statistic	df_1	df_2	Sig.
.000	1	128	.998

Table 4. Test of Homogeneity of Variances

Professional

Levene statistic	df_1	df_2	Sig.
.035	1	128	.852

From table 4, professional competence obtained significance value of 0.852, which is greater than 0.05. Therefore, it can be concluded that the variance of the two groups (experimental and control) is homogeneous or at (the same) variance.

Table 5. Independent Samples Test

		Levene's test for equality of variances		t-test for equality of means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std. error difference	95% Confidence interval of the difference	
									Lower	Upper
Pedagogic	Equal variances assumed	.000	.998	3.202	128	.002	5.400	1.686	2.063	8.737
	Equal variances not assumed			3.202	127.982	.002	5.400	1.686	2.063	8.737

From table 5, the results of post-test pedagogic t-test data analysis showed significance value (2-tailed) = 0.002 smaller than 0.005; therefore, it can be concluded that H_0 is rejected.

Table 6. Independent Samples Test

		Levene's test for equality of variances		t-test for equality of means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std. error difference	95% Confidence interval of the difference	
									Lower	Upper
Professional	Equal variances assumed	.035	.852	3.255	128	.001	4.846	1.489	1.900	7.792
	Equal variances not assumed			3.255	127.930	.001	4.846	1.489	1.900	7.792

From table 7, the results of the analysis of professional competency t-test data showed a significance value (2-tailed) = 0.001 smaller than 0.005, therefore, it can be concluded that H_0 is rejected and H_1 is accepted which means that there is an average difference between the experimental group learning outcomes with the control group.

The learning model used in this study is the mode in on in, mixed learning through face settings, assignments at home, and face settings again. The approach used was the andragogy approach. Andragogy means the art and science of helping adults learn (Knowles, 1980). In andragogy, the teaching and learning process is a shared responsibility of teachers and students. In this case, the teacher's role is the technical organizer, resource persons, and colleagues in evaluating learning outcomes. The teacher is more as a facilitator than an instructor, more a guide than a teacher. In andragogy, it is assumed that the teacher cannot "teach" in the sense of making someone to learn; however, that teacher can only help others to learn. Teachers and Students share responsibility for helping each other in learning.

Learning outcomes using the in on in learning model obtained higher grades, supported by Shoimin (2014) this learning model trains and develops the ability to solve problems that are oriented to authentic problems of the actual lives of students, to stimulate the ability high-level thinking. The material learned by teachers in professional competence is daily activities so that the average difference obtained was not very significant even though the experimental group is better than the control group.

The results of interviews with participants stated that they could establish communication relationships with fellow participants through the WhatsApp group and feel that they have a lot of knowledge that can be applied in learning. Participants hoped that training would often be held such as *in on in mode* at the sub-district or group level, which did not interfere with the learning process.

An interview with the instructor mentor stated that the participants, even though they were old, were diligent in reading modules. Perhaps, without the activities of *in on in modes*, the module reading activities are not taken as important activity as becoming a participant.

The principal, as the leader, also supports this kind of activities that are important to be carried out outside of school hours. Activities carried out outside of active teaching hours will not interfere with the learning process and

increase the teacher competency and educational progress.

In the constructivism learning theory (Schunk, 2012) states that participants form their understandings of knowledge and skills. In this *in on in modes*, the training participants tend to remember information more if their interpretations are personally meaningful to them. Participants build the same motivational beliefs about learning. They also build implicit theories relating to their strengths and weaknesses so that the learning can be done.

According to Pramono (2013) the guidance system, infrastructure, training education does not simultaneously affect the performance of teachers through competence. However, competence does not directly affect the performance of teachers. The more often teachers follow the training, the more knowledge, and skills they have since, through training, teachers can expand their knowledge both knowledge obtained from training instructors or also through the exchange of information between training participants (Yurnaningsih, 2012).

The efforts to improve teacher professionalism, one of which is pedagogical competence, will be developed a model of continuous training (Trisnayanti, Sadia, and Suma, 2014).

PKB training *mode in on in* can improve the competence of Kendal District Primary School teachers with a significant difference in the participants and non-participants. Training to be able to measure the ability of participants should have pre-test and post-test; this training is not available, so researchers prepare their post-test instruments.

CONCLUSION

The education and training of self-development activities of Continuous Professional Development *in on in mode* have a significant effect on the pedagogical and professional competence of training participants. The significant differences occur between participants and not participants in the pedagogical competence. Education and training activities should pay attention to the planning, implementation, and evaluation as a measure of the success of program objectives as an effort to improve the world of education in Indonesia.

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