

WORKSHOPS-COLLABORATIVE TRAINING TO IMPROVE TEACHER COMPETENCE IN EDUCATION QUALITY STANDARDS**^{1,*}Fajar Arianto, ²Tjitjik Rahaju, ³Hariyati, ⁴Unit Three Kartini, ⁵Afifan Yulfadinata and ⁶Hasan Subekti**¹Teknologi Pendidikan, Universitas Negeri Surabaya, Surabaya, Indonesia²Administrasi Negara, Universitas Negeri Surabaya, Surabaya, Indonesia³Akutansi, Universitas Negeri Surabaya, Surabaya, Indonesia⁴Teknik Elektro, Universitas Negeri Surabaya, Surabaya, Indonesia⁵Pendidikan Jasmani, Kesehatan and Rekreasi, Universitas Negeri Surabaya, Surabaya, Indonesia⁶Pendidikan Sains, Universitas Negeri Surabaya, Surabaya, Indonesia**Received 20th October 2022; Accepted 19th November 2022; Published online 12th December 2022**

Abstract

Training should not only develop knowledge or skill competencies but also develop soft skills. Teachers as educators must be able to work collaboratively and teach collaboration to their students. Workshop-collaborative is a method used to improve competence which is carried out in collaboration between participants. The results of the implementation of the workshop-collaborative training show that there is an increase in the competence of the trainees and the establishment of collaboration between participants.

Keywords: Workshop-collaborative, Teacher, Competence, Quality standard.

INTRODUCTION

In the 21st century, teacher competencies that are expected are the ability to collaborate in problem-solving and the ability in digital or information and communication technology (Caena and Redecker, 2019). Teacher professional competence is an individual's ability to master science, technology, and cultural arts including mastery of educational content standards (Maba, Perdata, Astawa, and Mantra, 2018). Teacher competence according to Pantić *et al.* (2011) in (Farihin *et al.*, 2022) there are four categories of teacher competencies, namely: (1) personality and professional; (2) knowledge of content, pedagogy, and curriculum; (3) understanding and contribute to the development of the education system; and (4) have concern for students. Teachers must have competencies related to educational quality standards as the basis for developing their learning. Teachers have a central role in learning and are a key factor in influencing student success, as well as in social transformation (Sumaryanta, Mardapi, Sugiman, and Herawan, 2018). In addition to being competent in the subjects taught, teachers are also competent in social relations, the ability to cooperate and collaborate, and the ability to solve problems (Ciechanowska, 2010). Improving teacher competence needs to be improved on an ongoing basis. Competency-based training is currently very popular and adopted for teacher training (Sumaryanta, Mardapi, Sugiman, and Herawan, 2018). Competency training for teachers affects increasing teacher competence and performance (Maritasari, Setyosari, Kuswandi, and Praherdhiono, 2020). Bordiug, Rashchenko, and Les (2020) stated that the workshop method is effective for use in teacher training because it aims to complete educational tasks, and develop knowledge and skills in monitoring the environment. The workshop is dynamic learning with direct activities from participants who are actively involved in the

work and are responsible for the practice-oriented educational process. Research from (Hestness, Jass Ketelhut, McGinnis, and Plane, 2018) shows that teacher workshops are very effective in increasing competence in science teachers related to computational thinking. The development of workshops for teacher development shows success in facilitating sustainable competency development in anticipating the ever-changing domain of Education (Ju and Liu, 2020). The challenge for teachers at this time is the ability to collaborate which is a much-needed competency in the era of the industrial revolution 4.0. Collaborative learning involves peers and builds intellectual relationships, contributing to each other at different times and places that can be done simultaneously (Hali, Zhang, Al-Qadri, and Aslam, 2021). The ability of teachers to collaborate in preparing culturally competent approaches to pedagogy, dedication, and strengthening practice and problem-solving (Johnson, Sdunzik, Bynum, Kong, and Qin, 2019). Training involving group work increases effectiveness in developing key skills and leads to increased individual learning (Prichard, Stratford, and Bizo, 2006). Workshop-collaborative training is training that involves participants actively working in a collaborative team. Collaborative training can increase participant motivation, share knowledge, and increase learning time (Emam, Taha, and Sayad, 2019). Vandegrift, Mulnix, Yates, and Chaudhury (2018) states that the workshop is a knowledge transfer process, elements in learning design include, (1) providing diverse and diverse representations of material, (2) involving students actively with the material through elaboration with themselves and others, (3) connecting content to real life through the use of examples and cases, (4) guiding students through challenges with hints for reflection and metacognition, (5) motivating students to learn, and (6) providing opportunities to practice with specific and timely feedback. And in collaborative learning, learning is participant-centered, and to be effective, instructors help develop teamwork skills by developing interpersonal skills;

*Corresponding Author: *Fajar Arianto,*

Teknologi Pendidikan, Universitas Negeri Surabaya, Surabaya, Indonesia

group management skills; inquiry skills; conflict resolution skills; synthesis, and presentation skills (Emam, Taha, and Sayad, 2019). In this study, the activities in the collaborative training workshop consisted of three stages, namely (1) classical meetings, which contained an explanation of the material being trained, (2) collaborative teamwork, where participants worked in small groups in completing assignments that had been given, (3) confirmation, which is a meeting that is held together in class to convey the results.

METHODS

This research method is a weak experiment using one shot group design. The participants in this study were high school teachers from various schools totaling 20 people. They are given training related to competency standards of education quality in 4 meetings which are held every week. Before the training activities, participants were given a pre-test, and after the training was given a post-test. The data analysis technique used in this study was to compare the pretest with the posttest. The research procedure is carried out through 3 stages of training activities, namely (1) classical meetings, where participants are given training related to educational quality standard material which is carried out face-to-face (synchronous); (2) collaborative teamwork stage, participants are divided into small groups (4 people). At this stage, participants work on a quality standard preparation project which is carried out asynchronously; (3) the third stage is confirmation which will present the results of the collaborative work. This meeting was carried out asynchronously, with the activities of each group representative presenting the results and discussing them classically.

RESULTS AND DISCUSSION

In this study, table 1 with the One-Sample Kolmogorov-Smirnov Test, shows that the pre-test data is not normally distributed ($0.041 < 0.05$), and the post-test data is normally distributed ($0.080 > 0.05$). The data obtained were not normally distributed, data analysis was performed using the WILCOXON test. The results of Wilcoxon's analysis (table 2) on the negative rank showed that there was no decrease in the pre-test against the post-test, both in average and in number. The positive rank shows an increase in the overall workshop-collaborative training participants with an average of 10.50 while the number of positive ranks is 210. In the ties, it can be concluded that there is no equal value between the pre-test and post-test. In table 3, the test results show $p = 0.000 (< 0.05)$, and it can be concluded that there is an increase in the competence of quality standards for teachers.

Table 1. One-Sample Kolmogorov-Smirnov Test

		Pre test	Posttest
N		20	20
Normal Parameters ^{a,b}	Mean	11.35	17.85
	Std. Deviation	1.424	1.089
	Absolute	.197	.182
Most Extreme Differences	Positive	.197	.182
	Negative	-.153	-.155
Test Statistic		.197	.182
Asymp. Sig. (2-tailed)		.041 ^c	.080 ^c

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

Table 2 Wilcoxon test

	Posttest - Pre test			
	Negative Ranks	Positive Ranks	Ties	Total
N	0 ^a	20 ^b	0 ^c	20
Mean Rank	.00	10.50		
Sum of Ranks	.00	210.00		

a. Posttest < Pre_test
b. Posttest > Pre_test
c. Posttest = Pre_test

Table 3. Test Statistics

	Z	Asymp. Sig. (2-tailed)
Posttest - Pre_test	-3.933 ^b	.000

a. Wilcoxon Signed Ranks Test
b. Based on negative ranks.

The results showed that there was an increase in the competence of the trainees related to the material being trained. Training that is carried out by working collaboratively in a team produces better results than that carried out individually (Prichard, Stratford, and Bizo, 2006). Training participants with collaborative work are involved interactively and voluntarily in decision-making and share responsibility and equality (Hillier, Civetta, and Pridham, 2010). Asynchronous collaborations give excellent results because they show positive interdependence, promotive interaction, individual accountability, social skills, and self-evaluation (Biesenbach-Lucas, 2004). Online discussions can engage participants in the main content, respond to comments from their peers, engage in deep conversations, and share freely (Gaševića, Joksimović, Eagan, and Shaffer, 2019). The workshop on his research Chappell, Sherman, and Barnett (2018) shows the effectiveness of training competencies related to knowledge and skills. Training with the workshop method can increase confidence and competence related to dural processes or at all levels of procedures (Augustine and Kahana, 2012). Teacher competencies related to content development and adaptation development can be improved with the workshop method, where teachers carry out various development patterns (Kim and Ward, 2020). Teachers who work collaboratively will try to change the basic conditions of privacy that have been carried out for years, changing working conditions that support each other in their development in completing assignments, and developing innovative practices (Cohen, 1997). Collaborative training can increase the development of a shared understanding of the task, consistently establish intimacy, transactive memory, and situational awareness, and team members can work effectively (Prichard, Stratford, and Bizo, 2006).

Conclusion

Teacher competence must always be improved in the face of changes in curriculum, science, and technology. Competency improvement training can be used by the workshop-collaborative training method. This training method is expected to improve competence and also the ability to collaborate. Workshop-collaborative training is effective in increasing the competence of participants in the areas being trained. The training method is expected to not only increase knowledge but also soft skills. The ability to collaborate at this time is very much needed to develop together by paying attention to social values. The application of workshop-collaborative training requires further research.

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