

## Improving Teachers' Professionalism Through Blended-Based Training in Indonesia's Remote Area

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### Abstract

Blended-based training is a best alternative choice for equalization of training in Indonesia's district area in the Covid-19 pandemic era considering the low competency of teachers in Indonesia at this time. This research was applied on improving the teachers' professionalism in Indonesia's remote area in order to act their main roles on preparing the learning administration. The research method used was experimental research by one-group pre-test and post-test design. Research subject were from normative and adaptive teacher at in remote areas of North Sumatra Province in Indonesia with 31 teachers. The instrument which used was portfolio and individual test by writing the lesson plan and all tasks collected by google drive. The data analysis technique was performed using SPSS Statistic 20 by one simple paired t-test. The result of this study showed that blended-based training could improve the teachers' professionalism where the significant value (2-tailed) was  $0.00 < 0.05$ . It mean that there was a significant difference of values where the post-test score was bigger than the pre-test score.

**Keywords:** Blended-Based Training, Professionalism, Remote Area



## 1. Background

It has been approved in the global agreement that teachers have very important roles in education because they have tasks to developing collaborative learning plans (Gutierrez, 2020), developing competencies, potential and student skills (Stemberger, 2020), and measuring the results of student learning progress (De Simone, 2020). For this reason, teachers are required to have high professionalism to carry out their duties professionally. According to Abusowman and Osaigbovo (2020) the professional skills of teachers involve the methods, strategies and techniques used in the teaching process which include effective classroom management, motivating skills, teaching methods, evaluation strategies, preparation of learning plans and the use of teaching materials effectively. Furthermore, Olohundare (2020) states that professional teachers must be more dedicated to their work regularly by preparing their lesson administration, entering the classroom at the right time, ensuring that students have a better understanding of the material being taught, taking detailed notes on the development of students and pay attention to difficulties that prevent students from learning effectively. In the other hand, professional teachers must be able to manage the class well because they can create supportive conditions for directing and regulating student social behavior (Omenka and Otor, 2015).

Previous empirical studies have shown that teacher competence in Indonesia really needs to be improved (Siswandari, 2013; Lestari and Purwanti, 2018; Rohmat, 2019). This is because the teacher is one of the determinants of the success of education (Dwirahayu, et al, 2020) and also as an external factor (Dahar 2011; Syarifuddin, 2011) which affected the implementation of education system, beside the factors from within students and factors in mastery of subject matter (Dahar, 2011). In addition, teachers need to understand the material to transfer knowledge, teachers also need to master competence in the field of research, mastery of curriculum, development of teaching materials, lifelong learning, socio-cultural competence, emotional competence, communication skills, mastery of education technology, mastery of the environment (Selvi, 2010; Olga, 2012, Dwirahayu, et al. 2020), mastery of class management, mastery of assessment methods, and problem solving skills (Peklaj, 2015). But the facts in the field showed that in general the competence of teachers was still low and has not been able to carry out the ideal view above (Maulipaksi, 2016; Yuliana, 2020) this was indicated by a low teacher competency testing score of 5.7 nationally (Minister of education and culture of Indonesia, 2020).

Yuliana (2019) revealed that the actual problem of teachers was related to learning devices which made formally to fulfill administrative needs alone, there were many teachers who were unable to compile a syllabus of learning devices independently, and teachers who compiled learning devices were not based on competencies that would be achieved. This problem was caused by teacher training in Indonesia that has not been carried out evenly and sustainably, especially in Indonesia's outermost, underdeveloped and remote areas due to geographical conditions (Lantip, et al 2017). The implementation of training was not carried out based on the evaluation results of previous trainings. The trainings were only focused in several provincial capitals and other large cities. However, the central government does not prioritize disadvantaged areas, so the professional level of teachers is very low. In general, teachers in remote areas did not understand the changing systems and objectives of the curriculum in Indonesia. However, the central government has never taken this problem

seriously and until now the central government has not provided a solution to overcome this big problem.

The problems above were in line with the results of the interview with the principal of the senior high school in remote areas on March 14, 2021. The information from 45 adaptive and normative teachers have never been included in training to increase teacher professionalism related to the policy of independent learning. They did not understand the concept of the latest curriculum established by the ministry of national education in Indonesia. They were still used the old curriculum and were unable to follow the target of the national curriculum. This condition occurred because the central government could not reach the school location which very far from the central government.

The actual problems above were the main reason for researchers to conduct this research to improve teacher professionalism through blended training in senior high school in remote areas of north Sumatra province in Indonesia. This training model was chosen because of the conditions of Covid-19 which forced all countries to work to find solutions so that the education process could be held (Rahayu and Wirza, 2020). Another reason was due to the strict implementation of lockdowns including educational institutions both in Indonesia and in other countries (Syauqi, Munandi, and Triyono, 2020; Napitupulu, 2020). Blended-based training is a training which is carried out online using the help of platforms and face-to-face training. Blended training was a training activity which combines face-to-face learning activities using internet media (Hidayat et al., 2020; Ahmad et al., 2020; Ningsih et al., 2017). Blended training could increase self-regulated participants and in the end could increase the final result effectively and efficiently (Usman, 2019). This was in line with research conducted by Abdullah (2018) stated blended training model could increase effectiveness in learning and training.

The results of research conducted by Saovapa Whicadee (2017) showed that blended training was an effective way to achieve better results because it could increase abilities through active participation in online classroom communities. This research also showed that blended training could improve content connectivity and interactivity among teachers in various modes of learning opportunities. With the use of technology support, the course would provide more collective knowledge and web-based applications on assignments outside of training that would benefit participants.

Furthermore, research conducted by Agus Subaidi et al (2019) showed that blended training could increase teacher professionalism. This was because implementation could help teachers in the training process apply in the learning process. Training provided flexibility where training could be carried out even if it was not face to face. Subsequent research conducted by Sudjana et al (2019) showed that blended training could increase learning effectiveness, expanded learning reach, time and cost efficiency and improved final outcomes.

According to Nana Sujana (2000) professionalism is a skill that people have according to their profession. This is in line with Sadirman (1993) who states that professionalism is the ability to do something that is owned by certain people. Furthermore, Ahmadi (1992) defines professionalism as a job characterized by shrewdness or intellectuality. Meanwhile, teacher professionalism is the teacher's ability to actualize himself in doing his job in everyday life (Ibrahim Bafadal, 2000). Based on the theoretical building above, it can be concluded that teacher professionalism is the ability of teachers to carry out their main duties as a teaching

staff which includes activities to make learning preparations, the learning process and learning evaluation.

Professional teachers have characteristics which appear in carrying out their duties at school. According to Sadirman (1993) the characteristics of a professional teacher were: a) able to identify deficiencies, weaknesses, difficulties, and problems that exist within him. b) establish a program to increase the ability of teachers to overcome deficiencies, weaknesses, difficulties. c) formulate the objectives of the learning program. d) determine and arrange learning materials and media. e) determine the format and prepare the assessment tool. f) create and schedule learning activities. g) assess learning outcomes. h) follow up in the form of remedials and enrichment for students based on the results of objective assessments.

The professionalism of teachers in their profession as teaching staff according to Hadi Supeno (1995) were; a) mastering learning materials according to the subjects they are teaching, b) managing learning activities, managing classes, c) using various media and relevant learning resources, d) understanding the principles of education, e) managing the activities of the learning process, f) providing an assessment of student learning outcomes, g) understanding the functions and guidance programs, h) mentoring and counseling, i) understanding and preparing school administration, j) and understanding the principles and interpret research results. In addition to having professional abilities, teachers must also have a professional attitude such as being willing to do additional assignments, showing patient behavior and being able to adapt to the school environment, having a constructive, responsible and collaborative attitude, always developing themselves, and a spirit of teaching students.

Based on the explanation above, it can be formulated the formulation of the problem of this research is whether mixed-based training can improve teacher professionalism in Indonesia's remote areas north Sumatra province?

## 2. Research Methodology

The research method used was experimental research. According to Sugiyono (2019) the experimental research method is a quantitative method used to determine the effect of the independent variable (treatment) on the dependent variable (result) under controlled conditions. While the type of experimental research applied in the field was the One-group pretest-posttest design. This type of research was conducted by one group of subjects by giving a pre-test followed by giving treatment and given a post-test to determine the effect of the treatment by comparing the pre-test and post-test values. An overview of this type of research can be seen in the chart below.



**Figure 1. Type of One-group pretest-posttest design Sugiyono (2019)**

This research was conducted in Indonesia's remote area north Sumatra province in academic year 2020-2021. This research was conducted by cooperation with the education office of the province of North Sumatra of the Gunung Tua branch of district Padang Lawas Utara. Mixed-

based training was held in the laboratory of SMA Negeri 1 recently using the zoom meeting platform and having the discussion with the team. This school is located at Jalan Kh. Dewantara number 15, Barumun Tengah District, Padang Lawas Regency North Sumatera Indonesia. The subjects of this study were 31 teachers who were normative and adaptive both civil servants and government contract teachers. The first data collection technique to be used as a pre-test value before being given treatment was through a portfolio by assessing the lesson plan which arranged by the teachers before giving the blended training. Furthermore, the researcher provided blended-based training, namely online and face-to-face training for 4 meetings through the zoom meeting platform for online and 4 meeting for group discussion and doing project of training. The Next, the researcher collected the second data to be used as a post-test score by assessing the lesson plan which arranged by the teachers after giving the blended training. The results of this assignment are carefully assessed using a previously developed rubric. The data collecting of this study were processed by using statistical applications to determine the results of the normality test and hypothesis testing and to present the results in tables and graphs. The data analysis of this research was explained if the post-test value ( $O_2$ ) > the pre-test value ( $O_1$ ) then the hypothesis is accepted. This means that blended-based training can increase teacher professionalism in preparing lesson plans.

### 3. Result And Discussion

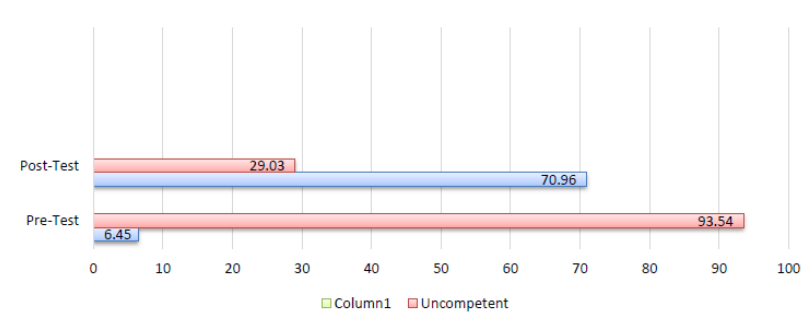
#### 3.1. Findings

The results of this study were obtained through an assessment of the lesson plan which developed by 31 teachers in Indonesia's remote area north Sumatra province in academic year 2020-2021 before giving treatment and after giving treatment. The following results of the research are presented in table below.

**Table 1. Result of Pre-Test dan Post-Test**

Indikacors	Result	
	Pre-Test	Post-Test
<b>Total value</b>	1956	2430
<b>Average score</b>	63.10	78.39
<b>Highest score</b>	78	90
<b>Lowest score</b>	50	55
<b>Median</b>	64	80
<b>Modus</b>	64	80

Table 1 above shows the teacher's ability to arrange the lesson plan where the mean score of the teacher in the pre-test is 63.10 and the post-test is 78.39. The table above also illustrates the profile of the teacher's ability in preparing a lesson plan where the lowest teacher score in the pre-test is 50 and the post-test is 55. Furthermore, the highest score in the pre-test is 78 and 90 post-test. Those who are declared competent in arranging the lesson plan are to obtain a minimum score of 70. Below is a diagram of the percentage of the teacher's ability in arranging the lesson plan.



**Figure 2. The Comparison of Pre-Test and Post-Test**

### 3.2. Normality Testing

The normality test was carried out by using SPSS analysis using the One-Sample Kolmogorov-Smirnov Test. The decision making in this test is if the significance value (Sig.) was bigger than 0.05, the research data was normally distributed. Meanwhile, if the significance value (Sig.) was smaller than 0.05, the research data was not normally distributed. Below are the results of the One-Sample Kolmogorov-Smirnov Test for normality.

**Table 2. The Result of One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		31
Normal Parameters <sup>a,b</sup>	Mean	0E-7
	Std. Deviation	4.72991779
Most Extreme Differences	Absolute	.110
	Positive	.110
	Negative	-.074
Kolmogorov-Smirnov Z		.611
Asymp. Sig. (2-tailed)		.849

Based on table 2 above, it can be seen that the results of the normality test with the One-Sample Kolmogorov-Smirnov test can be described as normal. This shows that the significance value is  $0.849 > 0.05$ , it can be concluded that the residual value is normally distributed.

### 3.3. Hypothesis Testing

This hypothesis test used the Paired Simple t-test to determine whether the application of blended-based training could improve teacher professionalism in Indonesia's remote area of North Sumatera Province. The basic of decision making was if the significance value (2-tailed)  $< 0.05$  then there was a significant difference between the pre-test and post-test scores. And if the significance value (2-tailed)  $> 0.05$  then there was no significant difference between the pre-test and post-test scores. Below are the results of the hypothesis test.

**Tabel 3. The Result of Hypothesis Testing by Paired Simple t-test**

Pair	Variabel	Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean					
					Lower				Upper
1	O1 - Variabel O2	- 15.290	5.001	.898	- 17.125	- 13.456	- 17.022	30 .000	

Based on the results of the hypothesis test in table 3 above, it can be seen that there is a significant difference between the pre-test and post-test scores of teachers in remote areas of North Sumatera Province in Indonesia after participating in blended training. This is indicated by the results of the Paired Simple t-test where the significance value (2-tailed) is  $0.00 < 0.05$ . In accordance with the basis for the conclusion above, it can be concluded that blended training has given the effect on improving teachers' professionalism in remote areas of North Sumatera Province in Indonesia in the academic year 2020-2021.

### 3.4. Discussion

This study aimed to measure the effect of blended training through experimental research. The results of the hypothesis test showed that the blended training could improve the professionalism of teachers in remote areas of North Sumatera Province in Indonesia. Professionalism referred to in this case was the ability of the teacher to prepare the lesson plan in accordance with the provisions of independent learning. The ability to arrange learning administration was a characteristic of professional teachers (Gutierrez, 2020) and then applied it to improve student competence (Stemberger, 2020), and measured the results of student learning progress (De Simone, 2020). There were several reasons blended training could increase the professionalism of teachers in remote areas of North Sumatera Province in Indonesia such as collaboration among the teachers, flexibility of training time, face-to-face online communication and enthusiasm of training participants.

Based on the statement of the principle of senior high school in remote areas of North Sumatera Province in Indonesia, the teachers have never attended this training, especially in the Covid-19 conditions. This condition made all school activities carried out from their respective homes so that teacher collaboration was not well-established to hold discussions and share experiences as usual. By this blended training, teachers could collaborate actively where they could learn more effectively and efficiently from one another. This is in line with Saovapa Wichadee (2017). By this training teachers could effectively develop a newest model learning implementation plan through digital collaboration which consists of developing learning objectives to be achieved, developing learning activities, and assessing learning outcomes (Minister of education and culture of Indonesia, 2019).

This blended training model has flexibility where teachers could attend the training from their respective homes and face to face through the zoom meeting application. This training model could assist teachers in the learning process in an applicable way in the learning process. This training provided flexibility where training could be carried out even though it was not face-to-face, but participants could follow it well (Agus Subaidi et al, 2019). Teachers could learn the

training materials after completing the training held by rewatching the available recordings. Teachers also could deepen the training material anytime effectively and efficiently. This was in line with Sudjana et al (2019) where mixed-based training could increase learning effectiveness, expanded learning reach, time and cost efficiency and improved final outcomes.

Blended training was very helpful for teachers to master the training materials because through this mode teachers easily established the communication to solve problems and difficulties to do the working. Teachers have the opportunity to communicate effectively both in online classrooms and outside online classrooms. This was in line with Tubagus et al (2019) which stated that blended training of trainees has the opportunity to develop communication skills both in class and outside the classroom through online interactions with each other discussing common problems and could optimize learning in improving individual learning. Through this training teachers could work together to complete training assignments effectively. In general, the making of a one-sheet learning implementation plan for teachers at remote area in North Sumatra Indonesia was still new because they have never had the opportunity to take part in training. However, through this training they could learn individually and collaboratively to compile the lesson plans that they will apply in the teaching process.

Indeed, blended training could create new conditions that have never been experienced by teachers as training participants. So that this condition affected the level of enthusiasm of the trainees. Blended training not only provided a learning experience, but also provided a quality and friendly learning environment as a whole. This was in line with research results conducted by (Wai and Seng, 2014; Tubagus et al, 2019). For this reason, blended training was the most appropriate choice in the Covid-19 pandemic season to increase the training effectiveness, efficiency and greater attractiveness in interacting with people in a diverse learning environment. This mode offered the opportunity to study together separately and at the same time and at different times, so that the Covid-19 pandemic does not become an obstacle to learning.

This blended training was a solution to the unequal problem of teacher training in Indonesia. Previously, teachers who had to attend training to improve professionalism had to leave the workplace because they had to attend training in the provincial capital and generally went to the capital city of Indonesia. From the information that the authors found in the field that the cost of this blended-based training was cheaper than the previous direct training costs. Previous training held by the central government had very high costs, such as hotel fees, transportation for trainees, lodging and consumption costs. However, in this blended training, the costs mentioned above were completely unnecessary because participants could attend the training from their own homes or from their respective schools. Blende-based training provided a very large opportunity to provide training to teachers in disadvantaged areas. Thus the problems of unequal training in Indonesia could be overcome. So that the priority of increasing the teachers' professionalism could be carried out to improve the quality of Indonesian education, both in big city centers and in many remote areas in Indonesia.

## **4. Conclusion and Recommendation**

### **4.1. Conclusion**

Based on the above discussion, the results of this study can be concluded that the blended training conducted by researchers could increase the teachers' professionalism in Indonesia's



remote area North Sumatra, especially the competence of arranging the lesson plan. Where the results of hypothesis testing with paired simple t-test showed that the significance value (2-tailed) was  $0.00 < 0.05$ . It means that there was a significant difference in values where the post-test score was bigger than the pre-test score.

#### **4.2. Recommendation**

Based on the research conclusions above, the authors can provide suggestions to researchers, teachers, and school principals in order to:

- 1) Implementing blended training to improve teachers' professionalism in arranging the lesson plan, especially in the current Covid-19 pandemic era.
- 2) Conducting similar research with different or the same variables to improve teachers' professionalism in arranging the lesson plan, carrying out teaching, and conducting learning assessments.
- 3) Conducting the same research with different variables in other remote areas in Indonesia to improve teachers' professionalism in arranging the lesson plan, implementing teaching, and conducting learning assessments.
- 4) Providing equitable training based blended training to the teachers in the others remote areas, underdeveloped and outermost in Indonesia to improve teachers' professionalism in arranging the lesson plan, implementing teaching, and conducting learning assessments.
- 5) Follow up on the results and realization of training in outermost, underdeveloped and remote areas schools in Indonesia to ensure the effectiveness of learning process.

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