Determinant factors of extraordinary elementary school teacher professionalism

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Abstract. This study aims to determine the effect of education, training, and teaching experience on the professionalism of Extraordinary Elementary School teachers in Kudus Regency. This research is an explanatory research with a quantitative approach. The research subjects were 63 SDLB teachers in Kudus Regency. The sampling technique was carried out by total sampling. The method of collecting data using a questionnaire. Data analysis using multiple regression analysis. The results showed that education, training and teaching experience had a significant effect on the professionalism of Extraordinary Elementary School teachers in Kudus Regency. The coefficient of determination ($R^2$) of 0.687 shows that the influence of education, training and teaching experience on teacher professionalism is 68.7%. Teaching experience has the greatest influence on teacher professionalism.

1. Introduction

Education is very important and cannot be separated from the world of human life. According to article 15 in the 2003 National Education System Law, education consists of several types, namely general, vocational, academic, professional, vocational, religious, and special education. Special Education is education for students who have a difficulty level in following the learning process because of physical, emotional, mental, intellectual, social, and / or intellectual potential and special talents [1].

SLB educational institutions are educational institutions that aim to help students with physical and/or mental, behavioral, and social disorders to be able to develop attitudes, knowledge, and skills as individuals and as members of the community. Special school teachers must know the basics of learning programs, understand the characteristics of children with special needs, and how to deal with and serve children with special needs [2]. Therefore, special school teachers are required to have professionalism in teaching.

Teacher professionalism can be interpreted as the commitment of teachers to improve their professional abilities and continuously develop strategies used in doing work [3]. Professional teachers are people who have special abilities and expertise in the field of teacher training so that they can carry out their duties and functions as a teacher to the maximum capacity. Each teacher is expected to be able to achieve the criteria of competent teachers, namely pedagogical competence, personality, social and professional competence [4].

Teachers who have high professionalism will be reflected in their mental attitude and commitment to creating and improving professional quality through various means and strategies. Teachers as
professional workers are required to always develop themselves by the demands of the times so that they always provide professional meaning. However, observations made in SDLB in Kudus Regency for 3 months, obtained information including: (1) teachers who received professional teacher certificates were only 70%, (2) teachers did not take advantage of the results from attending training, (3) some teachers still have difficulties dealing with their students.

Teacher professionalism can be influenced by various factors, including education, training, and teaching experience. Education is a theoretical endeavor using certain methods and is directed towards meeting the needs of science, abilities, skills, expertise, attitudes, and behavior [5]. Teacher training is an important thing for improving teacher competence. Through training can affect teacher professionalism in teaching [6]. The longer a teacher serves in education, the more experience the teacher has. The longer a teacher is in his / her field of work, the more professional it should be compared to a teacher who has just served [7].

Based on the description above, it can be seen that professionalism is very important in carrying out the duties of SDLB teachers. This study aims to determine the effect of education, training, and teaching experience on the professionalism of SDLB teachers in Kudus Regency.

The hypotheses in this study are as follows: (1) There is an effect of education on the professionalism of SDLB teachers in Kudus Regency, (2) There is an effect of training on the professionalism of SDLB teachers in Kudus Regency, (3) There is an effect of teaching experience on the professionalism of SDLB teachers in Kudus Regency, and (4) There is an effect of education, training, and teaching experience simultaneously on the professionalism of SDLB teachers in Kudus Regency.

2. Research method

This type of research used in this research is explanatory research with a quantitative approach. The research was conducted from August to September 2020. The population in this study were all teachers at five SDLBs in Kudus Regency, namely SDLB Negeri Kaliwungu, SDLB Negeri Cendono Dawe, SDLB Negeri Purwosari, SDLB Sunan Kudus Pedawang, and SDLB Sunan Muria Dawe. The total number of teachers was 63 people. The sampling technique uses saturated sampling, namely the sampling technique in which all members of the population are used as research samples.

The research variables consisted of three independent variables, namely education (X1), training (X2), and teaching experience (X3), while the dependent variable was teacher professionalism (Y). The data collection technique used a questionnaire method. The indicator for measuring the education variable is the level of education and the suitability of education for work [8]. Training indicators, consisting of materials, methods, and infrastructure, as well as training evaluation [9]. Teaching experience indicators consist of tenure, level of knowledge, and mastery of work [10]. Indicators of teacher professionalism variables consist of pedagogic competence, personality competence, social competence, and professional competence [11].

The validity and reliability of the instrument were tested using research data. All question items that were declared valid and reliable were then used as research data collection instruments. After that, the analysis prerequisite tests were carried out, namely the normality test, linearity test, heteroscedasticity test, and multicollinearity test. If the criteria in the analysis prerequisite test are met then it is followed by multiple linear regression analysis, t-test, F test, and the coefficient of determination.

3. Results and discussion

The research hypothesis testing uses multiple regression analysis techniques which have prerequisite test analysis, namely normality test, multicollinearity test, linearity test, and heteroscedasticity test [12].

The normality test is carried out to test whether the residual is normal or not by Kolmogorov-Smirnov. The criterion of the normality test is that the data follows the normal distribution of the significant value of the Kolmogorov-Smirnov test (K-S)> 0.05.
Table 1. Normality test results

| N  | Statistik K-S | Sig  | Kesimpulan |
|----|---------------|------|------------|
| 63 | 0.108         | 0.066| Normal     |

Table 1 shows that the significance value of the Kolmogorov-Smirnov test $> 0.05$, so it can be concluded that the regression model residual data is normally distributed. The second analysis prerequisite test is the multicollinearity test which is intended to determine whether the independent variables are not correlated or there is no significant relationship between the independent variables.

Table 2. Multicollinearity test results

| Variable                | Tolerance | VIF       | conclusion           |
|-------------------------|-----------|-----------|----------------------|
| Education (X1)          | 0.913     | 1.095     | Non Multicollinearity|
| Training (X2)           | 0.881     | 1.135     | Non Multicollinearity|
| Teaching experience (X3)| 0.882     | 1.134     | Non Multicollinearity|

Table 2 shows that the variables of Education, Training and Teaching experience have a VIF value of less than 10 and a tolerance value greater than 0.1, so it can be concluded that this study is free from multicollinearity.

The third analysis prerequisite test is the linearity test which aims to determine the relationship between the independent and dependent variables, whether they have a linear relationship or not.

Table 3. Linearity test results

| Relationships | F Value | Sig   | conclusion |
|---------------|---------|-------|------------|
| X1-Y          | 1.836   | 0.064 | Linear     |
| X2-Y          | 1.752   | 0.074 | Linear     |
| X3-Y          | 1.605   | 0.107 | Linear     |

Based on the summary of the linearity test, it was found that the relationship between education, training, and teaching experience on teacher professionalism gave linear results, because it had a significance value $> 0.05$.

The third prerequisite test for analysis is the heteroscedasticity test which aims to determine whether the regression model has inequality of variance from the residuals of one observation to another. The results of the heteroscedasticity test in Figure 1 show that the data plot spreads randomly and does not form a particular pattern or spreads above and below zero on the Y-axis. This means that the regression model does not have a heteroscedasticity problem.
The analysis prerequisite test was fulfilled, then multiple linear regression analysis was carried out with the help of the SPSS for windows version 26 program to test the research hypothesis. The results of data processing obtained the following results:

### Table 4. Results of multiple regression analysis

|                  | Unstandardized Coefficients | Standardized Coefficients | t     | Sig. |
|------------------|-----------------------------|----------------------------|-------|------|
|                  | B   | Std. Error | Beta |       |      |
| (Constant)       | 3.537 | 3.407     | 1.038 | 0.303 |
| Education (X1)   | 0.231 | 0.092     | 0.190 | 2.497 | 0.015|
| Training (X2)    | 0.224 | 0.080     | 0.218 | 2.815 | 0.007|
| Teaching experience (X3) | 0.649 | 0.076     | 0.661 | 8.521 | 0.000|
| Dependent Variable (Y): Teacher professionalism |
| R = 0.829        |
| R square = 0.687 |
| Adjusted R square = 0.671 |
| F value = 43.121 |

The results showed that there was an effect of education and training and teaching experience on teacher professionalism. This can be seen from the regression equation \( Y = 3.537 + 0.231X1 + 0.224X2 + 0.649X3 \), based on this equation, it can be seen that the regression coefficient of each independent variable is positive. This means that education, training, and teaching experience have a positive influence on teacher professionalism.

The results of the first hypothesis test show that the regression coefficient of the education variable on teacher professionalism is 0.231 (positive), the \( t \) value is 2.497 with a significance level of \( t \) of 0.015 (\( \text{sig} < 0.05 \)), so it can be stated that the education variable has a positive effect on teacher professionalism. Based on the test results, it can be said that the better the teacher’s education, the better the teacher's professionalism. Thus, the first hypothesis can be accepted.

The findings of this study are in line with previous research that the level of education has a significant positive effect on teacher professional competence. Adequate education will make humans have the opportunity to improve their lives and be more open to innovation, broaden horizons, and sharpen their understanding of various phenomena [3].

The results of the second hypothesis test show that the regression coefficient of the training variable on teacher professionalism is 0.224 (positive), the \( t \) value is 2.815 with a \( t \) significance level of 0.007 (\( \text{sig} < 0.05 \)), so it can be stated that the training variable has a positive effect on teacher professionalism.
professionalism. Based on the test results, it can be said that the better the training that the teacher participates in, the better the teacher's professionalism is. Thus, the second hypothesis can be accepted. Previous research has given the same result that training partially has a positive and significant effect on teacher professionalism [14]. Training is a teaching and learning process, using certain techniques and methods. Conceptually it can be said that training is intended to improve the skills or work abilities of a person or group of people [15]. Through training, it is hoped that the skills and abilities of teachers will increase so that they are able to carry out their duties effectively.

The results of the third hypothesis test show that the regression coefficient of the teaching experience variable on teacher professionalism is 0.224 (positive), the t value is 8.521, the t significance level is 0.007 (sig <0.05), so it can be stated that the training variable has a positive effect on teacher professionalism. Based on the results of these tests, it can be said that the more teaching experience the teacher has, the better the teacher's professionalism is. Thus, the third hypothesis can be accepted.

The results of the fourth hypothesis test show that the F value is 43.121 with a significance level of 0.000 (sig <0.05). This means that there is an effect of education, training, and teaching experience on teacher professionalism. Based on these conclusions, it can be said that the tendency to increase the combination of education, training and teaching experience will be followed by an increase in teacher professionalism. Thus, the fourth hypothesis can be accepted.

The findings of this study are consistent with previous research that teaching experience has a positive and significant effect on teacher professionalism [16]. Teaching experience is one of the factors that greatly determine success in education. Teaching experience in this case is an interval of being a teacher. The length of time as a teacher will provide a different experience between one teacher and another [17].

The results of the fourth hypothesis test show that the F value is 43.121 with a significance level of 0.000 (sig <0.05). This means that there is an effect of education, training, and teaching experience on teacher professionalism. Based on these conclusions, it can be said that the tendency to increase the combination of education, training and teaching experience will be followed by an increase in teacher professionalism. Thus, the fourth hypothesis can be accepted.

| Variable          | BetaCoefficients | Product moment correlation | Effect |
|-------------------|------------------|----------------------------|--------|
| Education (X1)    | 0.190            | 0.399                      | 0.076  |
| Training (X2)     | 0.218            | 0.461                      | 0.100  |
| Teaching experience (X3) | 0.661 | 0.772 | 0.510 |
| Total             |                  |                            | 0.687  |

The magnitude of the influence of each independent variable can be seen from the multiplication of the beta coefficient and the zero-order correlation (product moment correlation) [18]. In Table 4 it is known that the coefficient of determination R square = 0.687, meaning that the effect of education, training, and teaching experience simultaneously on teacher professionalism is 68.7%. In Table 5, the contribution of each independent variable to teacher professionalism, namely education is 7.6%; training by 10.0%; and teaching experience of 51.0%. These results indicate that teaching experience has the greatest influence on the professionalism of SDLB teachers in Kudus Regency.

In the teaching profession, teachers are expected to improve the quality of teaching, competence, teaching strategies, and to know scientific developments [19]. Special school students need teacher participation in class activities and seek to make progress in student development [20].

Education has an important role in improving the quality of human resources, including teachers as educators. Professional teachers play an important role in the teaching and learning process to improve student learning outcomes [21]. Teacher professional education qualifications have a significant effect on the attitude of behavior and learning activities by teachers. There is a significant effect of teacher professionalism on student achievement [22].

Teachers who have good abilities in their fields will be able to carry out their duties properly and be able to overcome problems that arise during work implementation. This will support the work of teachers, so that teacher professionalism will increase. Increased experience, knowledge, and skills,
participation in professional learning is related to the achievement of learning objectives [23]. In professional teacher training programs, subjects tend to be most effective at focusing on pedagogical competencies, such as organizational-wide classroom and management strategies [24]. This can contribute to the development of student learning. Teacher attitudes have improved as a result of the training program [25]. Training and development becomes effective if it is in accordance with the needs of the teacher [26].

Providing training for teachers can improve teacher skills. The results of [27] showed that elementary school teachers' confidence in mastery of technology increased during teaching training. Research [28] concluded a significant positive correlation between professional development and knowledge and professional competence.

The teacher's experience in teaching plays an important role in teacher behavior in teaching. A study conducted [29] explains how teacher learning support has a positive impact on teaching quality and teacher morale. The concept of teacher professionalism in education has been investigated in relation to many other variables, one of which is the teacher experience factor [30]. The teacher's previous perceived knowledge and experience will shape behavior in professional tasks, guide and provide learning for students with special needs [31]. Teachers with experience in teaching will find it easier to understand student behavior. This condition can facilitate the task of teachers in educating students, furthermore this will increase teacher professionalism.

4. Conclusions
Based on the results of the research data analysis, it can be concluded that education, training, and teaching experience have a significant effect on the professionalism of SDLB teachers in Kudus Regency. The result of the coefficient of determination (R2) of 0.687 shows that the influence of education, training, and teaching experience on teacher professionalism is 68.7%, while the remaining 31.3% is influenced by other variables outside the study. The contribution of each independent variable to teacher professionalism, namely education was 7.6%; training by 10.0%; and teaching experience of 51.0%.

SDLB teachers can increase professionalism by improving higher formal education, taking training seriously to increase teacher skills, and making the teaching experience the best teacher to become a professional teacher. The school should carry out continuous supervision to monitor the development of teacher professional competence.

5. References
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