Contribution of Teachers' Pedagogical Competencies and Professional Competencies to Classroom Management

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Abstract

This research aims to evaluate the contribution of pedagogical competence and professional competence to classroom management in the Independent Curriculum. Primary data was obtained through a questionnaire. Analysis techniques include validity tests, regression analysis, t test, F test, coefficient of determination, and classical assumption analysis. The results show that pedagogical competence significantly contributes positively to classroom management in the independent curriculum. Likewise with professional competence. Both together have a significant contribution to classroom management in an independent curriculum. The F test results show that these two variables together contribute significantly to classroom management. The proportion of influence of the two variables on classroom management is 95.7%, while the remainder is influenced by other variables. The classical assumption test shows that this multiple linear regression model meets the normality assumption and is free from classical assumptions. This research confirms the importance of pedagogical competence and professional competence in supporting effective classroom management in the context of an independent curriculum.

Keywords

Teacher, Pedagogical Competencies, Professional Competencies, Classroom Management.
1. Introduction

Knowledge, values, and functions to maintain and develop the diversity of cultures in a society that occur through the process of personality formation (in the making personality processes). This is done to be able to create humans who are able to stand on their own feet in the surrounding culture and society (Moore et al., 2022; Crouch, 2023). With education, a person can have knowledge and understanding of something critically in thinking and acting. The success of education is influenced by student activities, teacher professional competence, learning materials, learning models and methods and learning media used (Sibagariang et al., 2021) Research conducted by Sari et al. (2020) that creativity and innovation in online learning media that have been carried out based on the results of several meetings, namely by using media. Teacher Professional Competence is the ability of teachers in learning including: planning, implementing, and evaluating learning in accordance with their field of expertise. The implementation of this independent curriculum changes the learning process system which previously still tended to be cognitive or rote and the lack of touching affective and psychomotor aspects (Santoso et al., 2022; Palennari et al., 2023). Now transformed into learning by offering interactive, simple, and essential learning methods as well as in-depth implementation of the Independent Curriculum at the elementary school level, prioritizing project-based learning in order to realize the Pancasila Student Profile. It is also highly relevant to 21st century learning that equips learners with communication, collaboration, critical and creative thinking skills. Based on the results of the survey, it can be concluded that the quality of education in Indonesia is still low. The quality of education needs to be improved in order to produce more competent and qualified human resources (Sukawati et al., 2020; Komalasari et al., 2020).

One factor that needs to be considered and has an important influence on the quality of education, its relation in the learning process is the teacher. Teachers occupy an important position in education and make a high contribution to improving student learning outcomes because teachers intensively get to know and interact with students (Hempel et al., 2020; Alam, 2021). Teachers as professionals in accordance with the Law on Teachers and Lecturers Number 14 of 2005 are required to have personality competence, social competence, professional competence and pedagogic competence. Professional competence emphasizes the teacher's ability to master the material and concepts of the lesson taught and pedagogic competence is the way or methodology of how teachers teach (Wardoyo et al., 2020; Siregar, 2020). Both competencies are integrated in teacher performance in managing classroom management in the current independent curriculum (Moltudal et al., 2019). According to Suparlan (2006), pedagogic competence needs attention because this competence is related to the ability to understand students in depth and the implementation of educational learning. There are four components of professional competence, namely having knowledge about learning and human behavior, having knowledge and mastering the field of study he fostered, having the right attitude about himself, school, colleagues and the field of study he fostered, and having skills in teaching techniques. Professional teachers are people who have special abilities and expertise in the field of teaching so that they are able to perform their duties and functions as teachers (Sancar, 2021). A professional teacher is required with a number of minimum requirements, including: having adequate professional education qualifications, having scientific competence in accordance with their fields, having the ability to communicate with their students, having a creative and productive spirit, having a high work ethic and commitment to their profession, and always doing continuous self-development through professional organizations, books, seminars, and the like.
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(Widiarsa et al., 2013; Gacs, 2020). The quality of pedagogical competence and professional competence possessed by teachers can be seen in the quality of the application of supporting components including context components, inputs, processes, outputs and classroom management outcomes in the independent curriculum in the current independent curriculum. According to Widiarsa (2013), an effective school is a school that is able to manage its supporting components and internalize them into the school program so that the implementation of the program can support the achievement of students' expected learning outcomes.

Based on the observations, there are several problems concerning Professional Competence faced by elementary schools in terms of teacher input concerning teacher education background. There are some subject teachers who are not in accordance with their educational background, so that this causes the teacher's ability in the field taught to be less optimal or incompetent and affects pedagogical competence (Risan, 2022). This problem became an obstacle in the learning process of classroom management. This study emphasizes more on pedagogical competence and professional competence possessed by teachers as variables that affect classroom management in the independent curriculum in elementary schools, because teacher competence is one of the determinants of the success of the teaching and learning process felt by students (Francis & Oluwatoyin, 2019; Murkatik et al., 2020). Many aspects of classroom management in the independent curriculum need attention (Tomlinson & Imbeau, 2023). This research will broadly examine classroom management in the independent curriculum related to student management, learning management, and classroom management in the independent curriculum. Based on the reality in the field, it was found that the phenomenon that classroom management in the independent curriculum was not optimal, teachers still had obstacles in terms of class management in the independent curriculum. The arrangement of classrooms tends to be less varied, this is due to limited space and class size, as well as inadequate facilities (Norazman et al., 2019; Ackah-Jnr & Danso, 2019). Many elementary school students still consider that learning activities are boring activities, because they must be required (both parents and teachers) to always learn and do the tasks given by the teacher. The complaints raised can be obstacles or difficulties in learning. If this learning difficulty cannot be handled properly, it will make the achievement of students not good either (Aro et al., 2019; Putra et al., 2020). Other obstacles related to the discovery of problematic behavior, for example: eating in class, talking and playing too much during learning, not doing assignments / homework, fighting with friends, and others.

2. Method

This research evaluates the importance of pedagogical competence and professional competence in classroom management in the Independent Curriculum. In an era of education that continues to develop, classroom management plays a crucial role in facilitating effective learning. Therefore, this research focuses on two key aspects which are believed to have a significant contribution to classroom management, namely pedagogical competence and professional competence. To gain a deeper understanding, primary data was collected through the use of a questionnaire. The use of questionnaires provides an opportunity for respondents, both teachers and students, to provide their views and experiences directly related to their pedagogical and professional competencies. The analysis techniques applied include a series of statistical methods which include validity tests, regression analysis, t test, F test, coefficient of determination, and classical assumption analysis. This approach allows researchers to explore the relationship and direct impact of these competencies on classroom management. Through careful analysis, it is hoped that this research will be able to provide a better...
understanding of the extent to which pedagogical and professional competencies play a role in optimizing classroom management.

3. Result

Result on the Table 1, the sig value is obtained. Pedagogic competence 0.056<0.05, then Ho is accepted so that pedagogic competence is normally distributed. Professional competence has sig. 0.200>0.05 then Ho is accepted because so professional competence is normally distributed. Meanwhile, classroom management in the independent curriculum has sig. 0.174>0.05 then Ho is accepted so that class management in the independent curriculum is normally distributed. Based on the results of the homogeneity test, it was obtained that the significance value was 0.087>0.05 so that it can be concluded that Ho was accepted so that class management in the independent curriculum was homogeneous.

Table 1. Mean and Standard Deviation of Research Variables

<table>
<thead>
<tr>
<th>Research Variables</th>
<th>Mean</th>
<th>STD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedagogic Competence (X1)</td>
<td>84.06</td>
<td>6.786</td>
<td>70</td>
<td>98</td>
</tr>
<tr>
<td>Professional Competence (X2)</td>
<td>84.22</td>
<td>7.019</td>
<td>70</td>
<td>99</td>
</tr>
<tr>
<td>Classroom management in the independent curriculum (Y)</td>
<td>6.890</td>
<td>6.633</td>
<td>71</td>
<td>99</td>
</tr>
</tbody>
</table>

Hypothesis 1: \( Y = 0.655 + 0.982 \times X + e \)
Hypothesis 2: \( Y = 5.506 + 0.923 \times X + e \)
Hypothesis 3: \( Y = -1.419 + 0.637 \times X_1 + 0.369 \times X_2 + e \)

Based on Hypothesis 1, a regression coefficient for pedagogic competence of 0.982 was obtained. The regression coefficient for pedagogic competence is positive, meaning that when pedagogic competence increases, classroom management in the independent curriculum also increases. Hypothesis 2 shows that the regression coefficient for professional competence is 0.923 and is positive, meaning that when professional competence increases, classroom management in the independent curriculum also increases. Hypothesis 3 obtained the regression coefficient for the variable pedagogic competence is 0.637 and professional competence is 0.369. The regression coefficient for pedagogic competence and professional competence is positive, meaning that if pedagogic competence and professional competence are raised, class management in the independent curriculum will also increase, on the other hand, if pedagogic competence and professional competence decrease, class management in the independent curriculum will also decrease.

Hypothesis 1, based on calculations obtained \( t_{\text{count}} = 20.094 \) with sig. 0.000 (<0.05), so Ho is rejected. This means that there is a significant influence between pedagogic competence and classroom management in the independent curriculum. Hypothesis 2, based on calculations obtained \( t_{\text{count}} = 815.111 \) with sig. 0.000 (<0.05), so Ho was rejected. This means that there is a significant influence between professional competence and classroom management in the independent curriculum. Hypothesis 3, the calculated t value of the scientific attitude is 0.019 (<0.05) so that the scientific attitude has a significant effect on learning achievement, while the t count of the environmental care attitude is 0.000 (<0.05) so that the attitude of caring for the environment has a significant effect on learning achievement. Based on Test F hypothesis 1 the value of \( F_{\text{count}} \) calculate is 403.774 with sig.0.000 (<0.05), hypothesis 2 obtained \( F_{\text{count}} \) is 228.327 with sig. 0.000 (<0.05), hypothesis 3 obtained \( F_{\text{count}} \) is 325.108 with sig. 0.000 (<0.05).
An R² value of 0.931 shows that the proportion of the influence of pedagogic competence variables on classroom management variables in the independent curriculum is 93.1%, while the remaining 6.9% is influenced by other variables. An R² value of 0.884 shows that the proportion of the influence of professional competence variables on classroom management variables in the independent curriculum is 88.4%, while the remaining 11.6% is influenced by other variables. When viewed from the R² value of 0.957, it shows that the proportion of the influence of pedagogic competence and professional competence variables on classroom management variables in the independent curriculum is 95.7%. That is, pedagogic competence and professional competence have a proportion of influence on classroom management in the independent curriculum of 95.7%, while the remaining 4.3% (100% - 95.7%) are influenced by other variables that are not in the linear regression model. A double linear regression test (Hypothesis 3) can be called a good model if it satisfies the assumption of normality and is free from classical assumptions. The normality test result based on the normal image of the P-P Plot is normally distributed residual data. Based on the VIF value for scientific attitude and environmental care attitude are both 5.337, while the tolerance is 0.187. Because the VIF value of the two variables is not greater than 10, it can be said that there is no multicollinearity in the two independent variables. DW values are calculated at 12.326 > 1.573 and 2.326 < 2.427 which means that there is no autocorrelation, so it can be concluded that in the double linear regression model there is no autocorrelation. From the Scatterplot image, it can be seen that the distribution of points does not form a certain pattern / groove so that it can be concluded that heteroscedasticity does not occur or in other words homoscedasticity occurs.

4. Discussion

The results of the data analysis show that there is a strong contribution of pedagogic competence and professional competence to classroom management in the independent curriculum. The variables selected in the independent variable, namely pedagogic competence and professional competence, can explain the variation of classroom management variables in the independent curriculum by 95.7%, while the remaining 4.3% is explained by other variables. Based on these results, it can be concluded that the use of independent variables in explaining the variation of dependent variables is appropriate. Pedagogic competence has a significant influence on classroom management in the independent curriculum. This shows that high pedagogic competence will affect classroom management in a good independent curriculum. Pedagogic competence relates to the ability of a teacher to manage student learning which includes: the ability to understand students; ability to make lesson plans; evaluate learning outcomes; and the ability to develop students to actualize their various potentials. This is in accordance with research conducted by Saryati (2014), which found that pedagogic competence is important to build a systematic knowledge and play a role in managing student learning which includes understanding the characteristics of students, planning and implementing learning, evaluating learning outcomes, and developing student potential. It can be concluded that pedagogic competence plays a role in classroom management in the independent curriculum.

Professional competence is related to the ability to master learning materials in the field of study broadly and deeply which includes mastery of the substance of the material content, curriculum, and adding scientific insight. This is in accordance with Samana's (1994), which professional teachers know deeply what is taught, capable, and teach effectively and efficiently. The results of research conducted by Wahyudi (2010) found that the abilities possessed by teachers are not only related to mastering the material broadly and deeply but teachers must master practical
steps and conduct critical studies and other scientific studies. Good professional competence will certainly affect classroom management in the independent curriculum, because class management in the independent curriculum is related to planning, organizing, directing, supervising, and assessing classes. Good pedagogic competence and professional competence are needed in classroom management in the independent curriculum, so that teachers are able to provide good and quality educational services for students in achieving learning goals effectively and efficiently.

5. Conclusion

The results of Hypothesis Testing are pedagogic competence contributes positively and significantly to classroom management to the independent curriculum. Professional competence contributes positively and classroom management to the independent curriculum. Pedagogic competence and professional competence together contribute positively and significantly to classroom management in the independent curriculum. The results of the F test in the third equation are known to be the magnitude of $F = 325.108$ significance $0.000<0.05$. So that it can be concluded together the variables of pedagogic competence and professional competence affect classroom management in the independent curriculum. The total $R^2$ value of 0.957 shows that the proportion of the influence of pedagogic competence and professional competence variables on learning achievement variables is 95.7%. That is, pedagogic competence and professional competence have a proportion of influence on classroom management in the independent curriculum of 95.7%, while the remaining 4.3% are influenced by other variables that are not in the linear regression model. The results of the classical assumption test of the multiple linear regression test (Hypothesis 3) can be called a good model because the model satisfies the assumption of normality and is free from classical assumptions. Based on the results of the study can be considered by researchers to include other teacher competencies as research variables. The need to always maintain and improve the competence possessed by teachers in SD Banjarsari District in relation to classroom management in the independent curriculum so that it will realize effective and quality learning. Efforts to improve teacher competence can be carried out through various activities.

References


