The Influence of Self-Efficacy and Work Environment on Teacher’s Professional Competence

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Abstract: This study was conducted with the aim of testing 1) the magnitude of the influence of self-efficacy on the professional competence of teachers; 2) the magnitude of the influence of the work environment on the professional competence of teachers; and 3) the magnitude of the influence of self-efficacy and the work environment together on the professional competence of teachers. The method used in the implementation of this research is quantitative. The population and sample in this study were high school teachers in Lais District are SMAN 1 Lais, SMAN 2 Lais and SMAN 3 Lais. The results of the study stated that there was a positive and significant effect of self-efficacy and the work environment on the professional competence of teachers. In previous research, it examined more teacher’s performance factors as a focus of success. The novelty of this study is the focus on the success of quality education on teacher’s professional competence. The teacher’s professional competence needs serious attention from various parties, and efforts to increase factors related to teacher’s professional competence such as self-efficacy and work environment.

Keywords: Professional Competence, Self-Efficacy, Work Environment

A. Introduction

The urgency of this study was conducted in Lais District because information was obtained that teacher’s efficacy and working environment conditions were not optimal based on the results of interviews, and observations conducted by us on May 9, 2022 at one of the high schools in Lais District, Musi Banyuasin Regency. It is still a routine for teachers to fulfill their duties as teachers, despite efforts to improve their professional competence. We discovered several things based on their initial observations at high schools in the Lais District, including the fact that there were still a number of teachers who mastered the subject matter being taught, as well as the structure, concepts, and scientific mindsets that were still low because teaching was not in accordance with their field of knowledge, and the teacher’s ability to act reflectively in order to develop professionalism in a sustainable manner.
Some of these indicators indicate that some teachers continue to demonstrate less than optimal professional competence in carrying out learning. This can make the process of passing on knowledge to students less than ideal. As a result, based on preliminary observations, we believe that the high school in Lais District meets the criteria for a research site. These criteria include the fact that this high school in the Lais District has adequate facilities and infrastructure, as well as a commitment to research. Lais District senior high schools have adequate and experienced teaching resources. This school has an excellent school accreditation rating.

Teachers must have a variety of competencies within the scope of education in order to carry out their functions and roles professionally. According to Winata et al., (2022), competence is a combination of knowledge manifested in the form of action. Subject competencies are skills that a teacher must have in addition to other skills. According to Uno, (2016), teacher professional competence is a set of abilities that a teacher must possess in order to carry out teaching assignments. Professional development is important to teachers because professional competence includes subject mastery as well as the teacher’s expertise in directing learning.

According to information on the Republika.co.id page published on Thursday, April 18, 2019 in an article titled “Low Teacher’s Competence Becomes an Education Problem in Indonesia,” one of the causes of the “sickness” of education in Indonesia is low teacher’s competence. In 2017, 25% of the 3.9 million teachers currently available did not meet academic qualification requirements, and 52% did not have a professional certificate. This demonstrates a teacher’s lack of competence, particularly his professional competence. According to Act No. 14 of 2015 on Teachers and Lecturers, a teacher is a learning agent who must be a facilitator, motivator, and inspirational learner for students. According to Kristiawan et al. (2019), professional competence requires teachers to have broad and deep knowledge of the field of study to be taught, as well as mastery of methodology in the sense of knowing theoretical concepts, being able to choose the right method, and being able to use it in the teaching and learning process.

According to a mind-rakyat.com page published on August 22, 2019, the latest Teacher Competency Test Results (UKG) show that teachers who pass with a minimum score of 80 account for no more than 30% of those who pass. This means that roughly 70% of teachers have UKG scores below 80, putting them in the incompetent category. Furthermore, according to data from the PISA (Program for International Student Assessment) study, which is conducted every three years, Indonesia remains in the top ten lowest ranking, ranking 62nd out of 72 countries. According to the findings of the TIMSS (Trends in International Mathematics and Science Study), Indonesian students rank 36th out of 49 countries in terms of performing scientific procedures.
The teacher’s ability to master the subject and manage learning is also related to self-confidence in being able to work well, which is referred to as self-efficacy. Self-efficacy in his ability to complete a task, meet goals, and overcome obstacles. Teacher self-efficacy is defined as a teacher’s self-confidence in his ability to influence decision-making regarding classroom management, organizing a series of lessons, teaching, motivating students to learn, and effectively communicating with students to support their learning activities at school in order to achieve educational goals (Wicaksono, 2015). According to the Suarapermed.com page, in an article titled “Self-Efficacy: The Key to Educational Success During a Pandemic,” which was published on August 23, 2021, self-efficacy is a belief in one’s own competence to succeed in one’s assignments. Self-efficacy beliefs are the most influential factor in individual behavior. What is thought, believed, and felt will influence how action is taken.

A teacher’s self-confidence can help and provide a foundation for a teacher to work diligently, tenaciously, and courageously in facing obstacles in educational programs to support their activities at school. Self-efficacy is critical for teachers because it allows them to assess their level of confidence in their abilities and effort in carrying out assignments and facing the various challenges, they face in carrying out their duties as teachers. While the work environment is part of the outside world, it also has an impact on a teacher’s professional competence. A teacher’s ability to work professionally is hampered by poor working conditions. According to Pereira & Said (2019), the work environment is everything that is around employees that can influence them in carrying out the tasks assigned to them. The work environment can foster a strong working relationship among its employees.

Several previous studies have been conducted, including research (Sjamsuri & Muliyani, 2019) titled “The Influence of Self-Efficacy on Teacher Performance at SMA PGRI 3 Jakarta,” which shows that positive self-efficacy has a direct effect on the effectiveness of middle school teachers’ performance at SMA PGRI 3 Jakarta. Previous research, titled “The effect of school principal supervision, self-efficacy, and work motivation on teacher performance in SMP Citta sub-district, Soppeng district,” was also conducted by (Himadrazzaq et al., 2021), which revealed that there was a positive and significant influence of school principal supervision, self-efficacy, and work motivation on teacher’s performance in SMP Citta District, Soppeng Regency, both partially and simultaneously. The study “The Influence of the Work Environment and Work Motivation on the Competence of Certified Teachers at SMK Negeri 1 Pasuruan” (Yani & Indrawati, 2016) found that the work environment has a significant effect on teacher’s competence. Previous research can be used as a reference to confirm that self-efficacy and the work environment influence education.

More studies on teacher’s performance factors as a focus of success have been conducted in previous studies. The focus on the success of quality education on teacher’s professional competence is novelty in this study. There has never been any
research into the effect of self-efficacy and the work environment on teachers’ professional competence. Various parties must pay close attention to improving teachers’ professional competence. Professional competence is a measure of the success of interactions in educational settings in achieving learner goals (Mas, 2008). One of the reasons for researchers to study the effect of self-efficacy and the work environment on teacher professional competence is the various problems in the world of education regarding the quality and quality of education in order to increase the professional competence of teachers.

This study’s contribution is that it can provide benefits in the form of an overview of the state of professional competence of high school (SMA) teachers in Lais District, which is influenced by teacher’s self-efficacy and the work environment. The research conducted may also contribute to improve the professional competence of high school teachers in the Lais District. Thus, it is critical to conduct research on the Effect of Self-Efficacy and Work Environment on Teacher’s Professional Competence.

B. Methods

This study’s variables included two independent variables, self-efficacy (X1) and work environment (X2), as well as a dependent variable, teacher professional competence (Y). This research focuses on the quantitative examination of objective phenomena. The partial correlation method was employed. According to Duli (2019), this partial correlation method is used for hypothesis testing when the researcher wants to determine the effect of the independent variables on the dependent variable.

This study’s population consisted of 85 high school teachers from the Lais District. The study population consisted of the entire sample of teachers drawn from the existing population. The measuring instrument used in the study was a questionnaire in the form of a Likert scale that was compiled by the researchers themselves based on the theory of self-efficacy totaling 35 question items, 23 question items work environment, and 25 question items teacher professional competence, all of which had been tested beforehand, so that validity and reliability values were known. The prerequisite test, namely simple and multiple linear regression analysis, is used to test the hypothesis, followed by the t-test and F-test with the calculation of the Statistical Product and Service Solution for Windows release 26.00.

C. Results and Discussion

The average score is calculated based on the results for each variable. Each of the three research variables has a different average value. The average value of the self-efficacy variable is 143.47. The average value of the work environment variable is 92.52, while the average value of the teacher’s professional competence variable is 101.77. Each of
the variables investigated falls into the “pretty good” category, so it must be optimized again.

Hypothesis testing is a method of making decisions that is based on data analysis from both controlled experiments and observations. In statistics, an outcome is considered significant if all of these events fall within predetermined probability bounds. The implementation of this research is based on partial and simultaneous hypothesis testing. The partial hypothesis is intended as a test to demonstrate the effect of one variable on another, in this case variable X1 on Y and X2 on Y. Simultaneous hypothesis testing refers to the simultaneous testing of multiple variables to determine the effect on the dependent variable. The simultaneous test was used in this study to test variables X1 and X2 on variable Y. The test was performed using the SPSS program, and the results obtained from testing hypothesis 1 above were as follows:

Table 1. Results t-test Hypothesis 1

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>95,0% Confidence Interval for B</th>
<th>T</th>
<th>Sig.</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>95,008</td>
<td></td>
<td></td>
<td>8,616</td>
<td>,000</td>
<td>73,075</td>
<td>116,940</td>
</tr>
<tr>
<td>Self-Efficacy X1</td>
<td>443</td>
<td>,067</td>
<td>,228</td>
<td>2,134</td>
<td>,036</td>
<td>,010</td>
<td>,278</td>
</tr>
</tbody>
</table>

Based on the results of the tests, it is known that the t value for the self-efficacy variable is 2.134 > t-table which is 1.989, implying that t (count >) t-table so that the alternative hypothesis (Ha) for testing hypothesis 1 is declared accepted, implying that self-efficacy has a positive and significant impact on teacher professional competence. Further analysis of hypothesis testing can be performed by looking at the significance value, which is 0.036 0.05, indicating that the alternative hypothesis (Ha) is accepted, indicating that self-efficacy has a significant influence on the professional competence of high school teachers in the Lais District.

Table 2. Results t-test Hypothesis 2

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>95,0% Confidence Interval for B</th>
<th>t</th>
<th>Sig.</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>10,024</td>
<td></td>
<td></td>
<td>2,489</td>
<td>,015</td>
<td>2,015</td>
<td>18,034</td>
</tr>
<tr>
<td>Work Environment</td>
<td>911</td>
<td>,034</td>
<td>,947</td>
<td>6,883</td>
<td>,000</td>
<td>,844</td>
<td>,979</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Teacher’s Professional Competence
Based on the values in column t of table 2, it is known that the t value for the work environment variable is 6.883 > t-table, namely 1.989, implying that t (count >) t table, implying that the alternative hypothesis (Ha) for testing hypothesis 2 is declared accepted, implying that the work environment has a positive and significant influence on teachers’ professional competence. To support the findings of this analysis, the significance value of 0.000 0.05 indicates that the alternative hypothesis (Ha) is accepted and the statistical hypothesis (Ho) is rejected. This demonstrates that the work environment has a significant impact on the professional competence of high school teachers in the Lais District. The F test is used to test the simultaneous hypothesis. The following table shows the results of testing the hypothesis using the f test:

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>438,371</td>
<td>2</td>
<td>219,185</td>
<td>21,535</td>
<td>,000b</td>
</tr>
<tr>
<td>Residual</td>
<td>834,618</td>
<td>82</td>
<td>10,178</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1272,988</td>
<td>84</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Results F-Test Hypothesis 3
ANOVA

Based on the results of the simultaneous testing analysis, as shown in table 3, it is known that the F (count) value is 21.535 > F-table is 3.11, indicating that F (count) > F-table indicates that there is a positive and significant influence on self-efficacy and the work environment as a whole, as well as on teachers’ professional competence. Further analysis of hypothesis testing can be done by looking at the significance value, which is 0.000 0.05, which means that the alternative hypothesis (Ha) is accepted and the statistical hypothesis (Ho) is rejected, indicating that there is a significant influence on both self-efficacy and the work environment on the professional competence of Lais District high school teachers.

The Influence of Self-Efficacy on the Professional Competence of Lais District High School Teachers

The ability to use information and communication technology in the learning process and self-development was still low in the initial observations at the school where the research was conducted. Teaching and learning activities are still taking place using traditional learning methods and have not made use of a variety of media, particularly ICT. This means that aspects of teacher-owned school resources are still not optimal. In terms of professional competence, there are still teachers who have not thoroughly mastered the learning material. This is due to teachers’ inadequate educational qualifications. This increases teachers’ tendency to lack self-confidence in carrying out their duties. “Professional competence of teachers, namely having extensive
knowledge of the field of study they teach, choosing and using various teaching methods in the teaching and learning process they organize,” according to (Agusta Kurniati, 2014).

Observation activities reveal that teachers’ self-efficacy in influencing decision-making must be improved; for example, during meetings with the school principal and all fellow teachers, each teacher does not comment on the meeting’s topic of discussion. Furthermore, there are still teachers who experience socialization delays, and those whose relationships with their students’ parents are not harmonious. Teachers who are still lacking in their ability to act reflectively in order to develop professionalism on an ongoing basis in the learning aspect must also pay more attention, for example, by always preparing teaching media technology-based and communicating with parents and the community. Teacher self-efficacy is the self-confidence possessed by a teacher in his abilities in terms of influencing decision-making, regarding classroom management, organizing a series of lessons, teaching students to learn and communicate effectively to support their activities in school in order to achieve educational goals, according to (Jannah, 2010).

In the following stage of observation, each teacher was asked to understand that their self-efficacy must always be improved, and that each teacher is expected to strive for good self-efficacy so that they can carry out their duties properly, particularly in their professional competence. Increasing each teacher’s self-efficacy begins with the teacher’s belief in every aspect of increased self-efficacy, which includes decision making, using school resources, learning, discipline, parental/community involvement, and creating a positive school climate. Each teacher strives to improve his self-efficacy in these seven areas by carrying out or actively participating in school programs or activities that he believes will boost his confidence and self-efficacy. Professional competence in scientific aspects, development, subject matter, and ICT utilization are also hoped to be maximized. Based on the documentation results, it is clear that the teacher’s self-efficacy has been improved and optimized. So that teachers participate actively in school activities, have good relationships with parents/community students, which ultimately affects teachers’ professional competence, for example, in aspects of sustainable development/professionalism or scientific aspects, and learning materials can be improved by optimizing the use of ICT.

According to research, self-efficacy has a significant impact on an educator’s professional competence. These findings lend support to the proposed hypothesis. Based on the regression equation calculation results, the value of t for the self-efficacy variable is 2.134 > t-table, 1.989, indicating that if t (count >) t-table then the alternative hypothesis (Ha) in hypothesis 1 testing is said to be accepted, it can be called if there is a significant effect between self-efficacy variables (X1) on teacher’s professional competence (Y).
Based on the results of the questionnaire administered to the research sample, the correlation coefficient R was calculated to be 0.528, indicating that there is a category with a relationship between self-efficacy variables and teacher professional competency variables. Meanwhile, the coefficient of determination in the R square value is known to be 0.452, indicating that the self-efficacy variable has an effect on the professional skills of the teaching staff.

The findings of this study are consistent with the findings of (Rina, 2015), who discovered that self-efficacy has a direct positive effect on teacher creativity. Increasing a teacher’s self-efficacy is viewed as increasing teacher creativity in order to maximize learning opportunities for students.

The belief in a teacher’s ability to achieve the desired results from the main tasks performed is referred to as self-efficacy. As a result, a teacher with a positive attitude toward his responsibilities will be able to carry out his responsibilities and functions as a teacher with full responsibility. Teachers with high self-efficacy have a fighting spirit in mobilizing all of their potential to complete their tasks successfully and have good professional competence.

An educator’s personal ability is a sense of assurance in their ability to achieve the desired results from their primary responsibilities. As a result, an educator who is enthusiastic about his responsibilities as a teacher is better able to carry out his duties and responsibilities as a teacher. Teachers with high self-efficacy are passionate about teaching and use all of their potential to achieve task success. They also have high professional competence.

The Impact of the Work Environment on the Professional Competence of Lais District High School Teachers

During the initial observations, some teachers still demonstrated a lack of professional competence, and the school environment was not kept clean, making the learning process uncomfortable. The work environment’s condition has not been carried out optimally, for example, the environmental atmosphere has not been neatly arranged, greenery is still lacking, and the atmosphere of relations between all residents in the school environment has not been carried out optimally. The principal then optimizes the improvement of the working environment for the better, urging the school environment to be orderly, safe, and comfortable. According to (Sedarmayanti, 2012), work environment indicators include lighting, air temperature, noise, color use, space required, work safety, and employee relations.

Based on the documentation, it can be seen that the physical environment at the school where the research was conducted already has a lot of greenery, parks, and a more conducive classroom atmosphere. Workplace tools and equipment can be neatly and
orderly arranged. It is hoped that all school personnel will be pleased to work in a pleasant environment. Improving and optimizing the work environment is accomplished with the help of all school members, for example, by planting trees, mutual cooperation, volunteer work, and room arrangement. In terms of non-physical aspects of the environment, it has also been observed that an atmosphere of kinship and cohesiveness among fellow citizens has been well implemented and comfortable in the school environment.

According to the research findings, the work environment has a significant impact on teachers’ professional competence. These findings lend support to the proposed hypothesis. According to the regression equation calculation results, the value of t in the work environment variable is worth 6.883 > t-table, namely 1.989, implying that t (count >) if the alternative hypothesis (Ha) in hypothesis test 2 is declared accepted, the t table indicates that there is a significant influence between work environment variables (X2) on teacher professional competence (Y). Based on the research results from the questionnaire given to the research sample, the magnitude of the correlation coefficient R is known to be worth 0.749, indicating that there is a category that has a relationship between work environment variables and educators’ professional skills. Whereas in the R square value, the coefficient of determination is known to be 0.698, indicating that the work environment has an impact on teachers’ professional competence.

The findings of this study are consistent with the findings of a study titled “The Influence of the Work Environment and Work Motivation on the Competence of Certified Teachers at SMK Negeri 1 Pasuruan” conducted by (Yani & Indrawati, 2016). The findings of this study indicate that each work environment variable has an effect and work motivation has a direct and significant effect on teacher competency, so that the alternative hypothesis (Ha) is accepted while the statistical hypothesis (Ho) is rejected. Another study with the title The Influence of the Work Environment and Principal Leadership as Supervisors on Teacher Performance was conducted by (Susanti et al., 2021). According to the findings of this study, each variable of the work environment has an impact on teacher competency, and leadership has a direct impact on teacher competency. Teachers’ professional competence will be realized if the work environment is properly applied. This condition will eventually lead to the teacher having optimal professional competence by taking into account the teacher’s work environment, which in this case is the school as an educational institution where the teacher conducts teaching and learning activities with his students.

**The Effects of Self-Efficacy and Work Environment on the Professional Competence of Lais District High School Teachers**

Based on the documentation results, it is clear that the professional competence of high school teachers in the Lais District is significant. Teachers have been able to
expand their knowledge by participating in various trainings or technical guidance in the field of continuous development and professionalism. For example, attending seminars, webinars, or training both online and offline to broaden their perspectives and knowledge of the subject matter they teach. This can add insight and skills, as well as teacher competence in terms of increasing mastery of the material, allowing teachers to become professionals in their teaching fields. Furthermore, teachers can use ICT to support their primary school tasks by using technology-based learning media.

In Regulation of Minister of National Education No 16 of 2007, indicators of teacher professional competence include: mastering material, structures, concepts, and scientific mindsets that support the subjects being taught, mastering competency standards and basic competencies in the subject or field of development being taught, developing material learning that is taught creatively, developing professionalism in a sustainable manner by taking reflective actions, and utilizing information and communication technologies (Nuroqmah, 2021).

By using the F-test to test the hypothesis, it is discovered that the value of F (count) is 21.535 > F-table of 3.11, implying that F (count)> F-table means that the hypothesis Ha is accepted that there is a positive and real influence on self-efficacy and the work environment while simultaneously influencing educator professional competence. The coefficient or magnitude of the relationship between the two independent variables (self-efficacy and work environment) and the dependent variable (teacher’s professional competence) is 58.7%, indicating a moderately strong level of relationship. The determinant coefficient, or the magnitude of the effect of the independent variable on the dependent variable at the same time, is 34.4%, placing it in the moderately high influence category. The amount of influence that occurs in each variable, whether partial or simultaneous, is due to the fact that in theory, someone with high self-efficacy can achieve good results. Teachers with high self-efficacy will continue to develop their professional skills. Because every activity is always carried out with confidence to achieve good results, the potential to consistently achieve far better results exists.

This study complements the work of (Septianingsi & Atmanegara, 2021) who investigated the impact of self-efficacy on undergraduate students’ vocabulary mastery. According to the findings of this study, self-efficacy is an important factor in learning. Self-efficacy has a significant impact on students’ ability to influence the outcomes of their learning development. Thus, it is critical for educators to have professional competence, i.e. competence in their field.

Not dissimilar to the research of (Susanti et al., 2021) titled Teacher Professional Competence in Improving Education Quality. According to the findings of this study, teacher competence is relatively high. Teachers’ professional competence has been
developed through participation in training, upgrading training workshops, and teacher work groups. As a result, it is critical for teachers to have professional competence, specifically competent competence in their field. Previous studies, like this one, have their own characteristics. It is clear that self-efficacy and the work environment have consistent results, which emphasizes the importance of having high self-efficacy and being supported by a supportive work environment.

D. Conclusion

A teacher’s self-efficacy has a positive and significant influence on his or her professional competence. The work environment is also said to have a positive and significant impact on teachers’ professional competence. Simultaneously, two independent variables (self-efficacy and work environment) have a positive and significant effect on every high school teacher in the Lais District.

E. Acknowledgement

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