



## The influence of pedagogic competence and teacher work motivation on learning achievement of elementary school students in totikum district, Banggai Islands Regency

Roberto Rolly Bulalong<sup>1</sup>, Philoteus E A Tuerah<sup>2</sup>, Jeanne M Mangangantung<sup>2</sup>

<sup>1</sup> Students, Master of Elementary School Teacher Education Study Program, Manado State University, Indonesia

<sup>2</sup> Master of Elementary School Teacher Education Study Program, Manado State University, Indonesia

### Abstract

This study aims to analyze the effect of pedagogic competence and teacher work motivation on student learning achievement of elementary school in Totikum District, Banggai Islands Regency. This research was conducted on elementary school students in Totikum District. The research instrument used was a questionnaire. The research data was processed using a correlation research design with a tabulated regression analysis method with the SPSS for Windows version 23 program. The results showed that: (1) There was an influence between pedagogic competence on the learning achievement of elementary school students in Totikum District. This is indicated by a partial regression coefficient test (t test) which produces a value of  $t_{count} > t_{table}$  at a significance level of 5%, namely  $11.764 > 1.657$  (sig.  $0.000 < 0.05$ ). The magnitude of the effect is expressed in the coefficient of determination which produces a value of 54%; (2) There is an influence between the work motivation of teachers on the learning achievement of elementary school students in Totikum District. From the results of the study, the value of  $t_{count} > t_{table}$  at a significance level of 5% was  $12.175 > 1.657$  (sig.  $0.000 < 0.05$ ). Meanwhile, if it is seen from the coefficient of determination, it is found that the work motivation of teachers has an effect of 55.7% on student achievement. (3) There is an effect between pedagogic competence and teacher work motivation together on the learning achievement of elementary school students in Totikum District. This is indicated by the multiple regression coefficient test (F test) which produces a value of  $F_{count} > F_{table}$  at a significance level of 5%, namely  $141.488 > 3.07$  (sig.  $0.000 < 0.05$ ). The pedagogic competence and work motivation of teachers together have an effect of 70.7% on student achievement. The results of the regression analysis showed that there was a significant influence between teacher pedagogic competence on student achievement and there was a significant influence between teacher work motivation on student achievement, and there was a significant effect between pedagogic competence and teacher work motivation simultaneously on student achievement. It can be concluded that the higher the pedagogic competence and work motivation of teachers, the higher the learning achievement of elementary school students in Totikum District, Banggai Islands Regency.

**Keywords:** pedagogic competence, work motivation, learning achievement

### Introduction

School is one of the educational organizations that can be used as a forum to achieve national development goals. The success of educational goals in schools depends on the existing human resources in the school, namely principals, teachers, students, administrative staff and other education personnel. In addition, it must also be supported by adequate facilities and infrastructure.

To form humans in accordance with the goals of national development, which in essence aims to improve the quality of humans and all advanced, modern Indonesian society based on Pancasila, qualified educators are needed. The teacher is one of the most decisive components for the implementation of the educational process. The existence of the teacher is the main actor as a facilitator of the implementation of the student learning process. Therefore, his presence and professionalism are very influential in realizing the national education program. Teachers must have sufficient quality, because teachers are one of the micro components of the education system that are very strategic and take many roles in the education process in schools (Suyanto and Hisyam, 2000: 27).

Law of the Republic of Indonesia Number 14 of 2005 concerning Teachers and Lecturers, Chapter IV Article 10

Paragraph 1 explains, "The competencies that must be mastered by teachers include at least pedagogic competence, personality competence, social competence, and professional competence obtained through professional education." The four competencies are not only required to be owned, internalized, and controlled by the teacher, but must be continuously and dynamically improved and developed by the teacher.

Teachers as the most important education implementers, must have adequate competence to develop students as a whole. Pedagogic competence is one of the four competencies that must be possessed by teachers. In the Government Regulation of the Republic of Indonesia Year 2005 concerning National Education Standards, the explanation of Article 28 Paragraph (3) point (a) "Pedagogic competence is the ability to manage student learning which includes understanding of students, learning design, evaluation of learning outcomes, and student development. to actualize its various potentials." According to Sagala (2009:158) <sup>[6]</sup> "Pedagogic competence is the ability of educators to create an atmosphere and varied learning experience in the management of students who meet the prepared curriculum".

With regard to pedagogic competence, teachers are required

to be able to understand the character, develop the potential and learning styles of students, guide students in dealing with problems, understand Competency Standards (SD) and Basic Competencies (KD) and develop them into learning indicators, choose learning strategies and effective assessments for all students, managing classes and conducting follow-up assessments. Teachers must also be able to plan, implement, and evaluate these aspects. If these aspects are able to be carried out by the teacher well, then automatically the teacher's role as educator, teacher, and supervisor is carried out well and convincingly. These aspects are included in the pedagogic competencies that must be possessed by a teacher. The teacher's pedagogic competence is the teacher's ability to guide students in a better direction. So, the pedagogic competence of teachers is very important in the implementation of learning in the classroom.

It can be concluded that the competence or pedagogical ability of teachers is a fundamental element that must be possessed and mastered by a teacher in carrying out their duties and responsibilities. This competence will describe the success of teachers in carrying out the teaching and learning process and transfer of knowledge to their students. The better the competence of the teacher, theoretically teaching and learning activities will be more effective and efficient so that the predetermined goals can be achieved as desired.

Teaching and learning activities are the main activities in the educational process. The success or failure of achieving educational goals depends a lot on the teaching and learning activities that occur. And good learning achievement is the success of the teaching and learning process carried out in schools. To see the success or failure of teaching and learning activities in a period, the school conducts evaluations, ranging from daily tests, midterm exams, semester end exams to the National Examination (UN), so that teachers, students, schools and related parties can find out the achievements that has been achieved and the extent to which the effectiveness of learning has been achieved.

Learning achievement is an important thing in the educational process. Djamarah (2012: 23) <sup>[2]</sup> states "learning achievement is the result obtained in the form of impressions that result in changes in the individual as a result of activities in learning".

Through learning achievement, students can know their own quality.

One of the successes of teaching and learning activities is learning achievement or the value of students. The importance of assessing learning achievement is not only meaningful for students, but also for teachers and schools. Learning achievement is a benchmark for students to know success in learning. With the learning achievement, the teacher can estimate the right strategy in the learning process and the achievements of the learning process.

In relation to student achievement, teachers are required to be able to develop their competence and professionalism in carrying out their duties as educators. Teachers must also have high work motivation. According to Jamaris (2013: 170) <sup>[3]</sup> motivation is an action that moves and chooses to do an action towards the goal to be achieved. Meanwhile, according to Uno (2010:10) what is meant by motivation is internal and external encouragement within a person to make changes in behavior.

The responsibility of the teacher as an educator requires the

teacher to continue to be able to provide everything positive, starting from his thoughts, energy, methods, and innovations for the good of the students he guides. Not only students are required to have motivation to learn, but teachers also have to have motivation in teaching. Motivation is an attitude and emotion that can determine human behavior. In addition, motivation is also designed for a purpose.

Based on the information obtained by researchers through interviews with several elementary school teachers in Totikum District, it was found that: First, there are still classroom teachers who have not completed/reported the Learning Implementation Plan (RPP) and other teaching and learning processes. Second, the teacher does not develop learning methods so that students are only told to take notes or do assignments. Third, teacher motivation in improving student achievement tends to decrease, which is important in carrying out the duties of the leadership. Fourth, there are still teachers who evaluate learning achievement only during the mid-semester and end of the semester, even though it should be done at the end of each theme and sub-theme. This has an effect on student achievement which tends to decrease. It can be seen from the previous semester, there are still students who do not reach the KKM (Minimum Completeness Criteria). Meanwhile, student learning achievement is one of the benchmarks for the success of the learning process.

Based on this description, the authors are interested in conducting further research with the title: "The Influence of Pedagogic Competence and Teacher Work Motivation on Learning Achievement of Elementary School Students in Totikum District, Banggai Islands Regency."

This study aims to determine the effect of teacher pedagogic competence on student learning achievement and the effect of teacher work motivation on student learning achievement, as well as the effect of pedagogic competence and teacher work motivation together on learning achievement of elementary school students in Totikum District, Banggai Islands Regency.

### Research Methods

This study uses a quantitative approach. Quantitative research methods are used to examine certain populations or samples at random, data collection using research instruments, data analysis is quantitative in nature with the aim of testing established hypotheses (Sugiyono, 2009:14).

In this study, there are two independent variables, namely: Pedagogic Competence (X1), Work Motivation (X2), and one dependent variable, namely Learning Achievement (Y). This study uses a regression model with three variables that can be described in the form of a research design as follows: The population in this study were all students of class V Elementary School in Totikum District which amounted to 172 people. Sampling using the Slovin technique, and obtained 120 students as research samples.

Data collection techniques used in this study were observation, interviews, and questionnaires. The research instrument used is a questionnaire or questionnaire to obtain data on pedagogic competence and teacher work motivation. Meanwhile, learning achievement data uses the average value of the odd semester for the 2020/2021 academic year. The instrument calibration was carried out by using the validity test (using the product moment correlation formula) and the reliability test (using the consistency interval which was carried out with the Cronbach Alpha formula).

Prior to statistical analysis, a prerequisite test was conducted, in the form of a distribution normality test whose test was presented using the One-Sample Komogrov-Smirnov Test method (criteria: significance value > from alpha = 0.05) and the linearity test was carried out using the Anova table test ( The criteria: significance value on linearity < from alpha = 0.05).

To test the hypothesis, simple linear regression analysis was used to determine the effect of pedagogic competence on student achievement and the effect of work motivation on student achievement. Meanwhile, multiple linear regression analysis was used to determine the effect of pedagogical competence and work motivation together on the learning achievement of elementary school students in Totikum District.

**Results and Discussion**

Research data for the variables of pedagogic competence and teacher work motivation were obtained by distributing questionnaires or questionnaires to 120 student respondents. While learning achievement data obtained from the average value of the semester students. The research data obtained is a description of the three research variables. Then the respondent's answer score and the value obtained are recapitulated by the researcher.

**Table 1**

	X1	X2	Y
Mean	100.44	101.17	85.31
Median	101.00	101.50	85.00
Mode	102	98	90
Std. Deviation	5.845	5.368	4.850
Variance	34.165	28.812	23.526
Range	27	26	20
Minimum	89	90	75
Maximum	116	116	95

Furthermore, the researchers tested the requirements of the analysis, namely the normality test and linearity test. Based on the results of the calculation of the normality test and linearity test through the SPSS 23 program, the data are normally distributed and stated to have a linear relationship. Therefore, the next test can be carried out, namely hypothesis testing.

Based on the results of regression testing, it is known that there is an influence of teacher pedagogic competence on student achievement. This is in accordance with the opinion of Trianto (2007) <sup>[11]</sup> which suggests that pedagogic competence is the ability of teachers to manage students' understanding abilities, design and implement learning, evaluate learning outcomes, and develop students to actualize their various potentials. This means that the better the pedagogic competence of the teacher, the better the student's learning achievement.

The statement above is relevant to the results of the calculation of the coefficient of determination between pedagogic competence and learning achievement in this study. The magnitude of the influence of pedagogic competence on student achievement is expressed by the value of R Square, which from the results of a simple linear regression test, the coefficient of determination is 54%. This value indicates that the teacher's pedagogic competence has an effect of 54% on the learning achievement of elementary school students in Totikum District.

The results of the research above are in line with the research conducted by Monaliza (2013) from the Sultan Syarif Kasim State Islamic University, Riau, entitled: The Effect of Class Teacher Pedagogic Competence on Learning Achievement of Class III State Elementary School Students 05 Bengkalis District Bengkalis Regency This study concludes that pedagogic competence has a significant and positive effect on the learning achievement of third grade elementary school students. The result of the research shows that the regression equation is that the a value is 6.36 and the b value is 0.53 so that it forms a regression equation  $Y = 6.36 + 0.53 X$ . And the coefficient of determination (R) is 0.462. The significance test of the effect of class teacher pedagogic competence on student learning achievement shows that the calculated F value is 5.96, while the F table is 3.44 or  $F_{arithmetic} > F_{table}$  ( $5.96 > 3.44$ ). This means that  $H_a$  is accepted and  $H_0$  is rejected. Thus, it can be concluded that there is a significant influence between the pedagogical competence of classroom teachers on learning achievement in Civics subjects for third grade students at SDN 05 Bengkalis District, Bengkalis Regency.

The results of this study also get confirmation from Kurniasih (2017:115) <sup>[4]</sup> which states that the core pedagogical competence is that every teacher must be able to develop an operational curriculum, plan learning, carry out learning processes that encourage student learning activities more, can develop evaluation instruments properly and can encourage students' motivation to study seriously so that they become outstanding students.

From the results of research and confirmation by experts, it can be concluded that the higher the level of teacher pedagogic competence, the better the learning achievement of elementary school students in Totikum District.

The results of this study indicate that there is an influence between teacher work motivation on student achievement. This shows that the higher the motivation of the teacher, the better the student's learning achievement. In line with this, according to McGregor in As'ad (2004:47) <sup>[1]</sup>, a person is encouraged to do activities because he hopes that this will lead to a more satisfying state than the current state. Work motivation for teachers is important because with motivation, every individual is required to work hard and passionately to achieve maximum results.

Based on statistical calculations to test the second hypothesis, the tcount value between X2 (work motivation) and Y (learning achievement) was obtained at  $t_{hit} = 12.175 > (t_{tab}) = 1.657$ . These results confirm that work motivation has a significant influence on the learning achievement of elementary school students in Totikum District. The magnitude of the influence of work motivation on learning achievement is seen in the R Square value of 55.7%. This value states that the teacher's work motivation has an effect of 55.7% on the learning achievement of elementary school students in Totikum District.

This research is relevant to the research conducted by Nurmalina (2019), from the Tarbiyah Faculty of STAIN Gajah Putih Takengon Central Aceh, entitled "The Influence of Teacher Work Motivation on Student Achievement at SMP Negeri 2 Mesjid Raya". The results showed that there was a positive and significant influence between teacher work motivation on student achievement as seen from the teacher's responsibility in carrying out tasks, carrying out tasks with clear targets, and having feelings of pleasure at work.

From the results of research supported by previous studies and developed theories, it can be concluded that teacher work motivation affects the learning achievement of elementary school students in Totikum District. The teacher is one of the factors that have an important role in achieving the success of the teaching and learning process. Teachers must have good motivation in carrying out their teaching tasks. Good motivation can be interpreted by the emergence of a high desire and awareness in carrying out teaching tasks. The higher the work motivation possessed by the teacher, the better the learning achievement of elementary school students in Totikum District.

The results of the hypothesis test state that there is an effect between pedagogic competence and teacher work motivation together on student achievement. This means that student learning achievement will be better if it is supported by pedagogic competence and good work motivation from the teacher as well. So it can be said that the pedagogic competence and work motivation of teachers simultaneously affect the learning achievement of elementary school students in Totikum District.

This affirmation is in accordance with the results of the calculation of the coefficient of determination between the variables of pedagogic competence and teacher work motivation together on student achievement. From the calculation results obtained the coefficient of determination of 70.7%. This means that the variables of pedagogic competence and work motivation of teachers together have an effect of 70.7% on student achievement. This is also supported by the results of multiple linear regression, where the  $F_{count}$  value is  $141.488 > F_{table}$  3.07. This value concludes that the pedagogic competence and work motivation of teachers simultaneously have an influence on the learning achievement of elementary school students in Totikum District.

The results of this study are in line with research conducted by Dody Rijal Umami (2014), entitled "The Influence of Pedagogic Competence and Teacher Work Motivation on Student Achievement in the National Examination (UN) at SMA Negeri Se Kota Mojokerto." This study concluded: (1) the level of pedagogic competence of teachers in the very good category with an average score of 86.75% (2) the level of work motivation of teachers in the very good category with an average score of 86% (3) student achievement in exams nationally is in the very good category with an average value of 81% (4) the variable teacher pedagogic competence partially affects the learning achievement variable with a total value of 3,014 (5) the teacher work motivation variable partially affects the learning achievement variable with a total value of 4,246 (6) the variables of pedagogic competence and teacher work motivation have a simultaneous effect on the variable of student achievement with a total score of 13,318. This shows that the high pedagogic competence and work motivation of teachers together will make a real contribution to student achievement in the National Examination.

Sagala (2009:23) <sup>[6]</sup> states that the essence of teacher competence is "a set of knowledge, skills and behaviors that must be possessed, internalized and controlled by teachers to be able to carry out their professional duties". The use of the word must here shows the importance of a teacher mastering overall competence, which in particular in this study concerns pedagogic competence to carry out his professional duties.

Mastery of competence by teachers must also be supported by high work motivation. Maslow in Mulyasa (2009: 120) <sup>[5]</sup> suggests that motivation is the driving force that causes behavior towards certain goals. A teacher who has good motivation in carrying out his duties is a teacher who truly animates his work as educators, animates students and animates the field of study being taught and tries as much as possible so that the material being taught with the level of understanding of students is appropriate and mutually supportive.

Mastery of competence by teachers must also be supported by high work motivation. Maslow in Mulyasa (2009: 120) <sup>[5]</sup> suggests that motivation is the driving force that causes behavior towards certain goals. A teacher who has good motivation in carrying out his duties is a teacher who truly animates his work as educators, animates students and animates the field of study being taught and tries as much as possible so that the material being taught with the level of understanding of students is appropriate and mutually supportive. This will ultimately affect the learning achievement of the students they teach.

Seeing the magnitude of the influence of pedagogic competence and teacher work motivation on student achievement, it can be concluded that to achieve good learning achievement it must be supported by mastering good pedagogic competencies from teachers and based on high work motivation.

## Conclusion

Based on the results of research and discussions that have been carried out, the following conclusions can be drawn: First, there is an influence between pedagogic competence on learning achievement of elementary school students in Totikum District. This is indicated by a partial regression coefficient test (t test) which produces a value of  $t_{count} > t_{table}$  at a significance level of 5%, namely  $11.764 > 1.657$  (sig.  $0.000 < 0.05$ ). The magnitude of the effect is expressed in the coefficient of determination which produces a value of 54%. These results indicate that the higher the pedagogic competence of the teacher, the better the learning achievement of elementary school students in Totikum District will be. Second, there is an influence between teacher work motivation on learning achievement of elementary school students in Totikum District. From the results of the study, the value of  $t_{count} > t_{table}$  at a significance level of 5% was  $12.175 > 1.657$  (sig.  $0.000 < 0.05$ ). Meanwhile, if it is seen from the coefficient of determination, it is found that the work motivation of teachers has an effect of 55.7% on student achievement. So, it can be said that the higher the work motivation of guru, the higher the learning achievement of elementary school students in Totikum District. Third, there is an influence between pedagogic competence and teacher work motivation together on the learning achievement of elementary school students in Totikum District. This is indicated by the multiple regression coefficient test (F test) which produces a value of  $F_{count} > F_{table}$  at a significance level of 5%, namely  $141.488 > 3.07$  (sig.  $0.000 < 0.05$ ). The pedagogic competence and work motivation of teachers together have an effect of 70.7% on student achievement. Based on the research results, some suggestions can be put forward as follows: (1) For all elementary school principals in Totikum District to provide the widest opportunity for teachers to improve their pedagogical competence by

providing facilities and infrastructure that support this. (2) For all elementary school teachers in Totikum District, they should pay attention to their mastery of pedagogical competencies, namely matters related to their abilities in learning. In addition, teacher motivation in teaching needs to be improved because it affects student achievement. (3) For further researchers, it is recommended to examine more deeply the factors that affect student achievement, especially those related to teacher competencies outside of pedagogic competence, namely professional competence, personality competence and social competence.

### References

1. As'ad M. Psikologi Industri. Yogyakarta: Liberty, 2004.
2. Djamarah SB. Prestasi Belajar Dan Kompetensi Guru. Surabaya: Usaha Nasional, 2012.
3. Jamaris M. Orientasi Baru dalam Psikologi Pendidikan. Bogor: Ghalia Indonesia, 2013..
4. Kurniasih, I dan Berlin Sani. Kupas Tuntas Kompetensi Pedagogik: Teori dan Praktik untuk Peningkatan Kinerja dan Kualitas Guru. Jakarta: Kata Pena, 2017.
5. Mulyasa. Manajemen Berbasis Sekolah: Konsep, Strategi, Implementasi, Bandung: PT Remaja Rosdakarya. Cet, 2009, 1.
6. Sagala S. Konsep Dan Makna Pembelajaran. Bandung: Alfabeta, 2009.
7. Suyanto dan Djihad H. Refleksi dan Reformasi Pendidikan Indonesia. Memasuki Millenium III. Yogyakarta: Adi Cita, 2000.
8. Undang-Undang Republik Indonesia Nomor 20 Tahun tentang Sistem Pendidikan Nasional. Diknas. Jakarta, 2003.
9. Uno H. Teori Motivasi dan Pengukurannya. Jakarta: PT Bumi. Aksara, 2011.
10. Sugiyono. Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif, dan R & D. Bandung: Alfabeta, 2013.
11. Trianto. Sertifikasi Guru dan Upaya Peningkatan Kualifikasi, Kompetensi dan kesejahteraan. Jakarta: Prestasi Pustaka, 2007.