

# The Effect of Teacher Emotional Intelligence, Teaching Facilities and Infrastructure on Students Learning Outcomes in Inclusive School

Sowiyah<sup>1</sup> and Zulaikha Fitriyanti<sup>2</sup>

<sup>1,2</sup>Department of Educational Management, Universitas Lampung, Indonesia

Email: <sup>1</sup>[sowi.unila@gmail.com](mailto:sowi.unila@gmail.com) and <sup>2</sup>[zulaikhafitriy@gmail.com](mailto:zulaikhafitriy@gmail.com)

**Abstract**— The purpose of this study was to analyze and determine the effect of teacher emotional intelligence and teaching facilities and infrastructure on student learning outcomes in inclusive school administrators. This research is a quantitative research with descriptive verification method. This study uses a cluster random sampling technique with a selected sample of 65 teachers from 5 inclusive schools in the city of Metro, Lampung. Data was collected using a questionnaire in the form of a questionnaire. The research analysis used multiple equation regression with the help of SPSS Statistics 17 software and then estimated. The results of the study show that: (a) there is an influence of teacher emotional intelligence on student learning outcomes by 33.5%, (b) there is an influence of teaching facilities and infrastructure on student learning outcomes by 39.6%, and (c) There is an influence emotional intelligence of teachers and teaching facilities and infrastructure on student learning outcomes by 45%.

**Keywords**— Teacher Emotional Intelligence, Teaching Facilities and Infrastructure, Student Learning Outcomes.

## I. INTRODUCTION

Education is the main means of shaping and creating quality human resources, both through informal education and formal education. Education has the task to produce a good generation, humans who are more cultured, and humans as individuals who have better personalities. In Indonesia, there are various kinds of schools, such as public schools and schools for children with special needs which are commonly referred to as Extraordinary Schools. Special Schools are only regulated by a certain level so they cannot be assisted with the tools available in regular schools [7]. The negative assumption arises that special schools can be a "wall" between children with special needs and other normal children [15].

Based on a report received by the Indonesian Child Protection Commission (2014) related to physical violence against children with special needs also occurred in boarding school-based schools. In relation to these cases, the Indonesian Child Protection Commission provides recommendations to the Ministry of Education and Culture to evaluate the implementation of boarding schools for children with special needs. Preventive measures from the government to reduce the prevalence of cases of violence or discrimination against children are considered very necessary, so that the concept of inclusive education emerges.

In inclusive schools there is a diversity of students with various backgrounds, abilities, abilities, and capacities; from extraordinary levels of ability and capacity to students with special needs. Educational services that

are provided simultaneously cause the relationship between all students to take place interactively to understand each other, understand differences to increase empathy, sympathy, tolerance, and cooperation between them.

Inclusion itself contains the meaning of including elements into a single unit [2]. Inclusive education is a school system that provides opportunities for all students, including students with special needs, to be in an integrated environment. There are several values that are applied in the implementation of inclusive education, including equality of treatment, consideration of individual learning rights, climate development to increase active participation of all students, community, and sustainable implementation [1]. Inclusive education is a teaching system whose implementation combines children with special needs with normal children, where the school environment provides the freedom to support children with special needs [16].

Inclusive schools basically have to carry out assessments, implementation of learning to the assessment of learning outcomes of children with special needs. Everything needs to be adjusted to the needs of the child. The success or failure of a learning process can be known through assessment. Learning outcomes are a series of activities carried out to obtain data and information about the process and learning outcomes of students. This assessment of learning outcomes aims to determine the strengths and weaknesses in the learning process so that it can be used as a basis for decision making and improvement of the learning process that has been carried out.

An educator must pay attention to several types of assessment of children's learning outcomes, namely daily tests, assignments, homework, and semester tests. In providing an assessment, educators must also pay attention to the form of time, method, and material adjustments to suit the ability level of children with special needs in inclusive schools. Usually, the assessment can be seen from the academic or non-academic of the child.

In practice, the implementation of inclusive education still looks not optimal, especially for teachers. The implementation of inclusive education policies is indeed seen as the third biggest stressor in education reform policies in the world [4]. Teachers are the party who has the most challenges in implementing this policy. Based on the results of interviews conducted at five inclusive schools in the city of Metro to eight teachers and five principals in the range of September 2021, it was found that teachers feel pressured by the presence of students who are indicated to have special needs in the classroom. Teachers often feel frustrated and angry when faced with the slow understanding of students in receiving lessons and disruptive behavior in class. The teacher's problem is also the incompatibility of the teacher's academic qualifications with the lessons taught. The academic qualification referred to is the level of education that must be met by an educator as evidenced by a certificate of education for children with special needs or certificates of relevant expertise in accordance with the provisions of the applicable legislation.

The task of the teaching profession in the future is very difficult, not only must have a number of academic competencies, but also must have maturity and personality toughness. One aspect related to personality maturity and toughness is emotional intelligence (Emotional Intelligence) or Emotional Quotient (EQ). Provide a definition of emotional intelligence as the ability to feel, understand, and effectively emotional power and sensitivity [6]. According to Coleman in Mahyuddi & Noordi (2012) states that,

*"Emotional intelligence is the ability of a teacher to regulate his emotional life, maintain emotional harmony and express it through self-awareness, self-control, self-motivation, empathy and social awareness [10]."*

Teachers should be aware that the teaching of emotional intelligence should focus on strategies for student development. This is because the emotional intelligence of a teacher is related to the ability to manage emotions and build relationships with students and the school environment.

The emotional competence possessed by the teacher will not only have an impact on the psychological well-being of the teacher (Jennings & Greenberg, 2009) but also have an impact on the social emotional development of students. Jennings and Greenberg (2009) say that the quality of social emotional competence possessed by teachers will affect the formation of a positive classroom climate. Kolachina (2014) states that teachers should be aware that teaching emotional intelligence should focus on a strategy for student development. This is because the emotional intelligence of a teacher is related to the ability to manage emotions and build relationships with students and the school environment.

In addition to the emotional intelligence of teachers, the learning outcomes of students with special needs are also influenced by the availability of teaching facilities and infrastructure in schools. Schools that serve children with special needs provide adequate educational facilities and infrastructure and ensure the smooth running of educational programs [9]. The local government and the community facilitate educational facilities and infrastructure that are adapted to local conditions. Facilities and infrastructure in schools providing inclusive education must be suitable for Children with Special Needs. The provision of learning facilities and infrastructure in inclusive education can be in the form of special equipment. The special equipment needed is in accordance with the type of disorder of the Children with Special Needs. Special equipment used by teachers is useful to make it easier for teachers to convey the material presented to Children with Special Needs.

Based on the description above, the author is interested in conducting an in depth study of "the influence of emotional intelligence, teaching facilities and infrastructure on student learning outcomes at inclusive school".

## II. RESEARCH METHOD

The method used in this research is the descriptive verification method. The population in this study were 5 inclusive schools with 78 inclusive school teachers in the city of Metro, Lampung. This study used cluster random sampling technique and selected a sample of 65 respondents. This instrument is structured referring to the operational definition and grid of each variable. This study uses a questionnaire with each questionnaire item equipped with four alternative choices. The research analysis used multiple equation regression with the help of SPSS Statistics 17 software and then estimated.

## III. RESULTS AND DISCUSSION

Hypothesis testing was carried out using the SPSS Statistics 17 program. The data revealed in this study

were student learning outcomes (Y), teacher emotional intelligence (X1), and teaching facilities and infrastructure (X2). The overall data obtained are each sought for the highest value, lowest value, and average.

The findings and discussion are presented descriptively for each variable and each relationship between variables are discussed as follows.

**Table I: Regression of Teacher Emotional Intelligence on Student Learning Outcomes**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.853	3.894		3.301	.002
	Emotional Intelligence	.654	.116	.579	5.632	.000
<b>a. Dependent Variable: Learning Outcomes</b>						

ANOVA <sup>b</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	294.074	1	294.074	31.716	.000 <sup>a</sup>
	Residual	584.142	63	9.272		
	Total	878.215	64			
<b>a. Predictors: (Constant), Emotional Intelligence</b>						
<b>b. Dependent Variable: Learning Outcomes</b>						

Based on the results of the analysis in table 1 obtained as follows.

1. Constant a = 12.853 and coefficient  $b_1 = 0.654$  so that the regression equation becomes  $\hat{Y} = 12.853 + 0.654 X_1$ .
2. The constant a of 12.853 states that if there is no value for the teacher's emotional intelligence variable ( $X=0$ ) then the average score of student learning outcomes is 12.853.

3. The regression coefficient for  $X_1$  is 0.654 which states that each addition of one variable X will increase Y variable or if the teacher's emotional intelligence is good, it will increase student learning outcomes by 0.654.

When viewed from the probability (sig.) it turns out to be  $0.0001 < 0.05$ , thus  $H_0$  is rejected and  $H_1$  is accepted, meaning that the influence of the principal's managerial ability on school quality is very significant.

**Table II: Coefficient of Determination of Teacher Emotional Intelligence on Student Learning Outcomes**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.579 <sup>a</sup>	.335	.324	3.04501
<b>a. Predictors: (Constant), Emotional Intelligence</b>				

Furthermore, in table II it can be seen that the magnitude of the coefficient of determination (R Square) is 0.335. The value of the coefficient of determination shows the contribution of the influence of teacher emotional

intelligence on student learning outcomes by 33.5%, while the remaining 66.5% is influenced by other factors.

**Table III: Regression of Teaching Facilities and Infrastructure on Student Learning Outcomes**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14.352	3.185		4.506	.000
	Teaching Facilities and Infrastructure	.605	.094	.629	6.423	.000

<b>a. Dependent Variable: Learning Outcomes</b>						
ANOVA <sup>b</sup>						
	Model	Sum of Squares	df	Mean Square	F	Sig.
<b>1</b>	Regression	347.515	1	347.515	41.254	.000 <sup>a</sup>
	Residual	530.700	63	8.424		
	Total	878.215	64			
<b>a. Predictors: (Constant), Teaching Facilities and Insfratructure</b>						
<b>b. Dependent Variable: Learning Outcomes</b>						

Based on the results of the analysis in table 3 obtained as follows.

1. Constant a = 14,352 and coefficient  $b_2 = 0.605$  so that the regression equation becomes  $\hat{Y} = 14,352 + 0.605 X_2$ .
2. The constant a of 14,352 states that if there is no variable value of teaching facilities and infrastructure (X=0) then the average score of student learning outcomes is 14,352.

3. The regression coefficient for  $X_2$  is 0.605 which states that each addition of one X variable will increase Y variable or if teaching facilities and infrastructure are good it will increase student learning outcomes by 0.605.

When viewed from the probability (sig.) it turns out to be  $0.0001 < 0.05$ , thus  $H_0$  is rejected and  $H_1$  is accepted, meaning that the influence of teaching facilities and infrastructure on student learning outcomes is very **significant**.

**Table IV: Coefficient of Determination of Teaching Facilities and Infrastructure on Student Learning Outcomes**

<b>Model Summary</b>				
<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
<b>1</b>	.629 <sup>a</sup>	.396	.386	2.90238
<b>a. Predictors: (Constant), Teaching Facilities and Insfratructure</b>				

Furthermore, in table IV it can be seen that the magnitude of the coefficient of determination (R Square) is 0.396. The value of the coefficient of determination shows the contribution of the influence of

teaching facilities and infrastructure to student learning outcomes by 39.6%, while the remaining 60.4% is influenced by other factors.

**Table V: Emotional Intelligence Regression and Teaching Facilities and Infrastructure on Student Learning Outcomes**

<b>Coefficients<sup>a</sup></b>						
<b>Model</b>		<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>t</b>	<b>Sig.</b>
		<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
<b>1</b>	(Constant)	9.135	3.714		2.460	.017
	Emotional Intelligence	.341	.137	.302	2.482	.001
	Teaching Facilities and Infrastructure	.422	.117	.438	3.609	.001
<b>a. Dependent Variable: Learning Outcomes</b>						

ANOVA <sup>b</sup>						
	Model	Sum of Squares	df	Mean Square	F	Sig.
<b>1</b>	Regression	395.494	2	197.747	25.398	.000 <sup>a</sup>
	Residual	482.722	62	7.786		
	Total	878.215	64			
<b>a. Predictors: (Constant), Teaching Facilities and Insfratructure, Emotional Intelligence</b>						
<b>b. Dependent Variable: Learning Outcomes</b>						

Based on the results of the analysis in table 5 obtained as follows.

1. Constant  $a = 9.135$  and coefficient  $b_1 = 0.341$   $b_2 = 0.422$  so that the regression equation becomes  $\hat{Y} = 9.135 + 0.341 X_1 + 0.422 X_2$ .
2. The constant  $a$  of  $9.135$  states that if there is no value for the variable emotional intelligence of teachers and teaching facilities and infrastructure ( $X = 0$ ) then the average score of student learning outcomes is  $9.135$ .
3. The regression coefficient for  $X_1$  is  $0.341$  which states that each addition of one variable  $X$  will increase the  $Y$  variable or if the teacher's emotional

intelligence is good, it will increase student learning outcomes by  $0.341$ .

4. The regression coefficient for  $X_2$  is  $0.422$  which states that each addition of one variable  $X$  will increase the  $Y$  variable or if the teaching facilities and infrastructure are good, it will increase student outcomes by  $0.422$ .

When viewed from the probability (sig.) it turns out to be  $0.0001 < 0.05$ , thus  $H_0$  is rejected and  $H_1$  is accepted, meaning that the influence of teacher emotional intelligence and teaching facilities and infrastructure on student learning outcomes is very significant.

**Table VI:** Coefficient of Determination of Emotional Intelligence and Teaching Facilities and Infrastructure on Student Learning Outcomes

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.671 <sup>a</sup>	.450	.433	2.79031
<b>a. Predictors: (Constant), Teaching Facilities and Insfratructure, Emotional Intelligence</b>				

Furthermore, in table VI it can be seen that the magnitude of the coefficient of determination (*R Square*) is  $0.450$ . The value of the coefficient of determination shows the contribution of the influence of teacher emotional intelligence and teaching facilities and infrastructure on student learning outcomes by  $45\%$ , while the remaining  $55\%$  is influenced by other factors.

**A. The Effect of Teacher Emotional Intelligence on Student Learning Outcomes**

Based on this analysis, it is explained that the results of statistical analysis between teacher emotional intelligence and student learning outcomes in table II obtained a correlation coefficient ( $r$ ) =  $0.579$  and a determination coefficient ( $r^2$ ) =  $0.335$ . The analysis explains that the teacher's emotional intelligence contributes to student learning outcomes by  $33.5\%$ . This shows that there is a significant influence between teacher emotional intelligence on student learning outcomes.

Emotional intelligence needs to overcome problems in life and become an important basis for being a human who is full of responsibility, attentive, productive, and optimistic in dealing with and solving the problems [14]. Emotional intelligence is an ability that should be possessed by each individual to adapt to his work [6]. Emotional intelligence skills are skills that may be taught and improved through education [11].

Another study of emotional intelligence also concluded that there is a positive correlation between emotional intelligence and IQ on performance [5]. There is a relationship between the emotional intelligence of

teachers on students learning outcomes who teach in four private universities in Uttar, Pradesh, India [17].

Teachers do not only use skills and abilities in carrying out their duties with intellectual abilities acquired in teacher and training education, but also use emotional abilities possessed by the teacher. The ability to control emotions, mutual respect, and the ability to perceive the emotions of other people are a form of emotional intelligence. Emotional intelligence is hoping to help teachers carry out tasks and roles in line with established standards [12].

Based on the opinions and results of the research above, there is an influence of teacher emotional intelligence on student learning outcomes. Whatever the amount of contribution given by the emotional intelligence of the teacher will always affect the learning outcomes of students. Therefore, the positive increase that occurs in the emotional intelligence of teachers will improve student learning outcomes in inclusive schools.

**B. The Influence of Teaching Facilities and Infrastructure on Student Learning Outcomes**

Based on the analysis that has been carried out, the results of statistical analysis between teaching facilities and infrastructure on student learning outcomes in table IV are obtained by the correlation coefficient ( $r$ ) =  $0.629$  and the coefficient of determination ( $r^2$ ) =  $0.396$ . The analysis explains that teaching facilities and infrastructure contribute to student learning outcomes by  $39.6\%$ . This shows that there is a considerable

influence between teaching facilities and infrastructure on student learning outcomes.

Based on the result research of Holmes (2011), there is the impact of school facility construction and renovation on academic achievement research in Texas; the purpose of this study was to explore the possible relationship between school facility conditions and students' academic achievement [8].

A good condition of the classroom is necessary to improve the students' learning outcomes. If classrooms are in bad condition, the government must take immediate action to fix them so as not to allow the damage to hamper the learning process.

Educational facilities are the facilities that directly support the education process to achieve educational goals, for example, classroom, book, library, and laboratory. Meanwhile, educational infrastructure is the facilities that indirectly support the education process, for example, a school garden and schoolyard [3; 13].

Based on the discussion and research results above, there is an influence and linear regression as well as a positive correlation between infrastructure that can improve student learning outcomes in the literature in line with the proposed framework.

### ***C. The Effect of Teacher Emotional Intelligence and Teaching Facilities and Infrastructure on Student Learning Outcomes***

The results of data processing based on hypothesis testing that has been carried out between the influence of teacher emotional intelligence ( $X_1$ ) and teaching facilities and infrastructure ( $X_2$ ) on student learning outcomes ( $Y$ ) in table 6 obtained correlation coefficient ( $r$ ) = 0.671 and coefficient of determination ( $r_2$ ) = 0.450.

The analysis explains that the emotional intelligence of teachers and teaching facilities and infrastructure contribute to student learning outcomes by 45%, while 55% is influenced by other factors. This shows that there is a significant influence between the teacher's emotional intelligence variable ( $X_1$ ) and teaching facilities and infrastructure ( $X_2$ ) on student learning outcomes ( $Y$ ).

The factors that influence learning outcomes are classified into two, namely internal factors and external factors. A person's learning outcomes are determined by various factors that influence it. One of the external factors is the availability of learning resources that can be convenience for students to use in learning, to achieve good learning outcomes.

In the research of Wibowo, Ediati, and Masykur (2010) it is said that the higher the emotional intelligence, the higher the performance [18]. The better a person's ability to remain able to think realistically, logically and not to prioritize excessive emotional reactions when facing a difficulty, the greater his awareness of the tasks and responsibilities that must be completed by the individual.

Inclusive schools providers must prepare learning media and special equipment tailored to student needs. For example, for children with special needs who have visual impairments (blindness), it is necessary to have a riglet and pen, Braille typewriter, etc [9]. Learning facilities and infrastructure are some of the factors that determine success in the learning process. Because without learning facilities and infrastructure, the learning process is unlikely to take place properly. The component of facilities and infrastructure in the inclusive education system is one of the important components. Seeing the characteristics of children with special needs, the educational facilities and infrastructure needed must of course adapt to the needs of children.

Based on the opinions and results of the research above, there is an influence of teacher emotional intelligence and teaching facilities and infrastructure on student learning outcomes. Therefore, a positive increase that occurs in the emotional intelligence of teachers and teaching facilities and infrastructure will improve student learning outcomes.

## **IV. CONCLUSION**

Based on the results of hypothesis testing and data analysis regarding the effect of teacher emotional intelligence and facilities and infrastructure on student learning outcomes at inclusive schools, the following conclusions are obtained:

1. There is an influence of teacher emotional intelligence on student learning outcomes by 33.5%, meaning that if teacher emotional intelligence increases, student learning outcomes will also increase.
2. There is an influence of teaching facilities and infrastructure on student learning outcomes by 39.6%, meaning that if teaching facilities and infrastructure are good, student learning outcomes will also increase.
3. There is an influence of teacher emotional intelligence and teaching facilities and infrastructure on student learning outcomes by 45%, meaning that there is a significant influence between teacher emotional intelligence and teaching facilities and infrastructure on student learning outcomes.

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### REFERENCES

- [1] Ainscow, M. Understanding the development of inclusive schools. Psychology Press, 2003.
- [2] Booth, T. & Ainscow, M. Index for inclusion. Developing learning and participation in schools. Bristol: CSIE, 2011.
- [3] Burhanuddin, Y. Education Administration. Bandung: Pustaka Setia, 2005.
- [4] Chan, D. W. "Emotional intelligence and components of burnout among Chinese secondary school teachers in Hong Kong". Teaching and Teacher Education, 22, 2006, pp. 1042–1054. doi:10.1016/j.tate.2006.04.005
- [5] Ciarrochi, J., Forgas, J. P., & Mayer, J. D. (Eds.). Emotional intelligence in everyday life: A scientific inquiry. Psychology Press, 2001.
- [6] Cooper, R. K., Sawaf, A., & Widodo, A. T. K. Executive EQ: Emotional Intelligence in Leadership and Organizations. Gramedia Pustaka Utama, 1998.
- [7] Firdaus, E. "Inclusive Education and Its Implementation in Indonesia. Paper presented at the National Education Seminar", 24 Januari 2010, Purwokerto. Retriever August 1, 2017, from [http://file.upi.edu/Direktori/FPIPS/M\\_K\\_D\\_U/195703031988031ENDIS\\_FIRDAUS/Makalah\\_pro\\_internet/1nkl5\\_Seminar.pdf](http://file.upi.edu/Direktori/FPIPS/M_K_D_U/195703031988031ENDIS_FIRDAUS/Makalah_pro_internet/1nkl5_Seminar.pdf)
- [8] Holmes, S. J. "The Impact of School Facility Construction and Renovation on Academic Achievement in Texas". Texas: Dissertation, Lamar University, Beaumont, 2011. Retrieved from <http://gradworks.umi.com/34/97/3497340.html>
- [9] Kustawan, Dedy. Inclusive Education and its Implementation Efforts. Luxima Metro Media: Jakarta. 2012, pp. 80-82
- [10] Mahyuddi, E., & Noordi. "Emotional Intelligence, Achievement Motivation and Academic Achievement Among Students of the Public and Private Higher Institutions". International Journal of Diversity in Organizations, Communities and Nations, 9, 2012, pp. 135-144.
- [11] Mayer, J.D., Salovey, P., & Caruso, D.R. Models of emotional intelligence. In J. Sternberg (Ed.), Handbook of New York: Cambridge University Press, 2000, pp. 396-420.
- [12] Mulyasa, E. Becoming a professional teacher: Creating creative and fun learning, Bandung: Remaja Rosdakarya, 2007, pp. 161-162.
- [13] Mulyasa, E. School-Based Management; Concept, Strategy and Implementation. Bandung: Remaja Rosdakarya, 2011.
- [14] Patton, H. Emotional intelligence in the workplace. Jakarta: Pustaka Delaprasa, 2001, p. 1.
- [15] Praptiningrum, N. The phenomenon of implementing inclusive education for children with special needs. Journal of Special Education, 7(2), 2010, pp. 32-39
- [16] Sadioglu, O., Bilgin, A., Batu, S., & Oksal, A. Problems, expectations, and suggestions of elementary teachers regarding inclusion. Educational Sciences: Theory and Practice, 13(3), 2013, pp. 1760-1765.
- [17] Singh, I., & Jha, A. Teacher effectiveness in relation to emotional intelligence among medical and engineering faculty members. Europe's Journal of Psychology, 8(4), 2012, pp. 667-685.
- [18] Wibowo, E. M. The Relationship Between Emotional Intelligence and Teacher Performance. Journal of Psychology, Faculty of Psychology, University of Diponegoro, 2010.