

Relationship Between Lecturer Competencies and Student Learning Achievement in The Social Sciences Education Courses

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Abstract

Relationship between lecturer competencies and student learning achievement in the social science's education courses is aimed at knowing the capacity of lecturers in providing services to students so that they can get proud student achievement. The research method used descriptive and verification type in 86 students as samples and analyzed accepting multiple regressions. The results of the research prove that of the three competencies of the lecturers studied, all three have a favorable influence on student achievement, and aspects of ability competency that have a very positive influence on variable Y in this study. This study strengthens previous research even though it was only carried out at the level of higher education and in social science education courses

Keywords: Lecturer Competencies, Student Learning Achievement, Social Sciences Education.

1. Introduction

The problem of learning achievement is still one of the interesting studies in recent years. Some studies reveal concerns about student academic achievement due to learning problems and school demands, including time to complete studies, not passing exams, and unsatisfactory grades (Corbeil n.d.; Thomas 2000). Learning achievement can be seen from the ranking of actualization in learning activities obtained through formal education institutions (Baker et al. 2001). The benchmark of learning achievement is seen in the standard values set by each school and on changes in achievement levels from year to year in all academic courses on tests and assessments (Greaney and Kellaghan 2008; Henderson et al. 2007; Paulo et al. 2009). In addition, learning achievement can describe the level of achievement of students in terms of knowledge, skills, and learning experiences formulated by learning objectives in the Campus curriculum (Assessment and Started n.d.; Maher 2004).

Learning achievement is the result of the interaction of the teaching and learning process that occurs during learning. At the end of the learning process, the teacher evaluates the act of teaching, and students are expected to improve their abilities (Sadler 1998). Moreover, students can have critical thinking skills (Ningsih, et al, 2020) and also the ability to survive, such as entrepreneurship (Sutangsa, et al. 2019). High learning achievement is the hope of all parties, both students, parents and educational institutions. However, there are many students who have not reached the mastery of learning in social science education courses that show indicators of the lack of success of teaching and learning activities carried out (Carson 1993).

The problem of the low learning achievement of students in social science education courses also occurred in STKIP PGRI Sukabumi. From a few years after the assessment was carried out, there were conditions that the students' learning achievement showed a decreasing condition. If these conditions continue to be left unchecked, it is feared that the learning achievement of participants will be low and educational goals will not be realized. Furthermore, this condition will have an impact on further education, future, career opportunities, achievement of social status, and later student welfare (Ferguson, Bovaird, and Mueller 2007; Hout et al. 2011). The campus will also be affected by the difficulty of gaining interest, other expected student learning motivation if student achievement is low. For this reason, this problem is very important to solve because it is a problem that is always faced in the field of education.

This research is different from previous research. In this, study examined the effect of teaching competencies on students' learning achievement and carried out at universities that became the research sample. Researchers believe that lecturers' competence indirectly influences student achievement (Ferguson, 2007; Trisnarningsih and Suparwati n.d.) Lecturer competence is basically an ability that must be possessed by a lecturer who includes aspects of

knowledge, skills, thought processes, adjustments, attitudes and values adopted in carrying out the profession as a teacher. In carrying learning activities, an educator thinks and acts consistently and continuously in his teaching effectiveness that is in accordance with his competence (Romi, et al. 2020). Competence here can be said as the skills, expertise, skills and abilities possessed by the teacher, which includes four competencies related to the ability to manage student learning (European Commission 2013; Liakopoulou 2011).

Lecturers as educators must have the competence in carrying out the learning process because the lecturer is most connected with students. Quality lecturers can support student learning achievement, the competencies possessed in turn support the desired performance (Gaffar et al. 2019; A Riswanto, et al. 2019, 2019; Soetjipto, et all. 2020; Riswanto, et al. 2020; Wibowo et al. 2020). Lecturers' competencies develop relationships that encourage students to design lessons, influence students' understanding of the material, apply behaviors to foster students' motivation, encourage collaboration between students, and assessment actions can be role models for students who ultimately affect their learning achievement (Hightower, et al. 2011; Long, et al. 2014; Ari Riswanto and Aryani 2017).

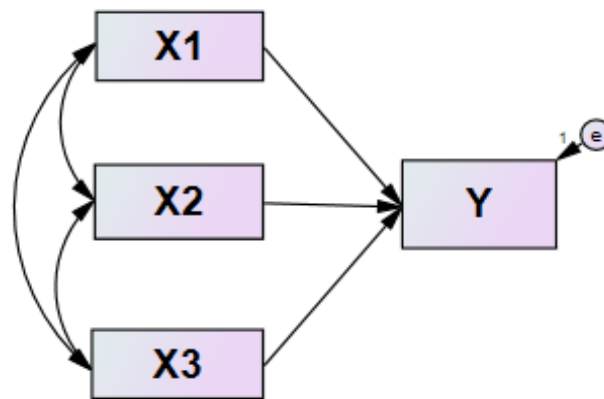
2. Methodology

Research methods can be interpreted as ways that can be used by researchers in conducting research so that research objectives can be achieved. This study uses descriptive and verification research types. In this study, researchers used two data source's especially first and secondary data sources obtained from the first hand to be analyzed next to find the solution or problem under study. The primary data source in this study is all data obtained from interviews, observations, and questionnaires distributed to a number of students who are in line with the target and considered to represent the entire study population, namely students of STKIP PGRI Sukabumi. Whereas secondary data in the form of data that has been collected by researchers, data advertised in statistical journals and others, and information available from publications or non-publications either inside or outside the organization, all of which can be useful for researchers (Randolph, 2013). In this study the subordinate data source is documentation of the results of the Final Semester Examination.

As for the population unit in this study were all fourth semester, students of citizenship education, study programs and economic education study programs of STKIP PGRI Sukabumi, which amounted to 86 students. For testing and analysis of research using Multiple Equation Regression Models. Below is a design of a research model compiled to be teste (Keith 2015; Pituch, et al. 2016).

In this paper, it is revealed that the research conducted is focused on testing the model formulated by the research team, it can be seen that the research model is shown in Figure 1. This model is a model of the results of an in-depth study from various sources.

The model in Figure 1 examines the independent variable: lecturer competencies (X) which consists of pedagogical competence (X_1), personality competence (X_2), and the third is social competence (X_3). The dependent variable of this study is student learning achievement (Y).



$$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Figure 1. Simple model of Student Learning Achievement

Model Description:

- X_1 = Pedagogical Competence
- X_2 = Personality Competence
- X_3 = Social Competence
- Y = Student Learning Achievement
- b_0 = Intercept, $b_{1,2,3}$ = coeffisien
- e = error term

Figure 1 shows the influence of the variables X_1 (Pedagogical Competence), X_2 (Personality Competence), and X_3 (Social Competence) on the variable Y (Student Learning Achievement): $X_1 \rightarrow Y$, $X_2 \rightarrow Y$, and $X_3 \rightarrow Y$. between the independent variables (X), namely $X_1 \leftrightarrow X_2$, $X_1 \leftrightarrow X_3$, and $X_2 \leftrightarrow X_3$.

3. Results And Disussion

Research related to lecturer competency is done with the aim that competencies related to the capacity of the lecturer can be known and developed in the future. The independent variables in this study consisted of knowledge competencies, comprehension competencies and ability competencies, which analyzed the effect on student achievement.

Below will be elaborated on the results of the study and also the discussion related to the lecturers' competence which consists of aspects of knowledge, aspects of understanding and aspects of ability towards student learning achievement.

Table 1. Correlation and Descriptive Statistics (N = 86)

Variable	Y	X1	X2	X3
Y	1			
X1	.903**	1		
X2	.852**	.808	1	
X3	.914	.879	.839	1
Mean	3.35	6.44	6.80	9.99
Std. Deviation	1.13	2.82	2.53	3.21

Information: * $p < .05$; ** $p < .01$; *** $p < .001$

Table 1 shows that the relationship between the independent variables (lecturer competence) has the value of each correlation coefficient on student learning achievement is 0.903; 0.852 and 0.914. So it can be concluded that the three aspects of the lecturer competency studied to have a very high relationship in determining student achievement in the introductory social studies courses at the Sukabumi Teacher Training and Education School. The results of the analysis in the form of correlation of each of the independent variables $X_1 \rightarrow X_2 = 0.808$; $X_1 \rightarrow X_3 = 0.879$ and $X_2 \rightarrow X_3 = 0.839$. Furthermore, table 1 shows the mean value for each variable, among others: $X_1 = 3.35$; $X_2 = 6.44$; $X_3 = 6.80$ and $Y = 9.99$. While the results of the Standard deviation for each variable have values, among others: $X_1 = 1,13$; $X_2 = 2.82$; $X_3 = 2.53$ and $Y = 3.21$.

The results of this study corroborate the research conducted related to the teaching competence of students' performance (Ed 2011; Nbina 2012; Shafi 2014); student learning achievement (Chiang, Yang, and Hwang 2014; Gwo-Jen Hwang, Fan-Ray Kuo, Nian-Shing Chen 2013; Yien et al. 2011; Youssef and Mansour 2012).

Table 2. Summary of Results of Parameter Estimates for Model Y (Learning Achievement)

Model	R	R ² (Adjusted R ²)	B	SE	β	t
Model 1	.943***	.890 (.886)				
Constant			.325	.141		2.295
X1			.151**	.032	.378**	4.739
X2			.087**	.031	.196**	2.791
X3			.146	.030	.417	4.826

Keterangan: * $p < .05$; ** $p < .01$; *** $p < .001$

Table 2 shows the results of the calculation of the R value of 0.943 ($p < 0.001$), the R² value is 0.890. Furthermore, the constant value (intercept) on the function being tested is 0.325 with a SE value of 0.141 and $t = 2.295$. The results of Table 2 above also show the X_1 coefficient value of 0.151 (with an SE value of 0.032; $p < 0.01$; $t = 4.739$), the value of the X_2 coefficient of 0.087 (with an SE value of 0.031; $p < 0.01$; $t = 2.791$) and the coefficient of X_3 is 0.144 (with an SE value of 0.030; $t = 4.826$).

Table 2 is a summary of the results of the analysis carried out. A shorter explanation is shown in Figure 2 and Figure 3 below, which is a model image based on the results of AMOS analysis with standardized and unstandardized categories. The function produced by this research nature is $Y = 0,325 + 0,151X_1 + 0,087X_2 + 0,146 X_3$.

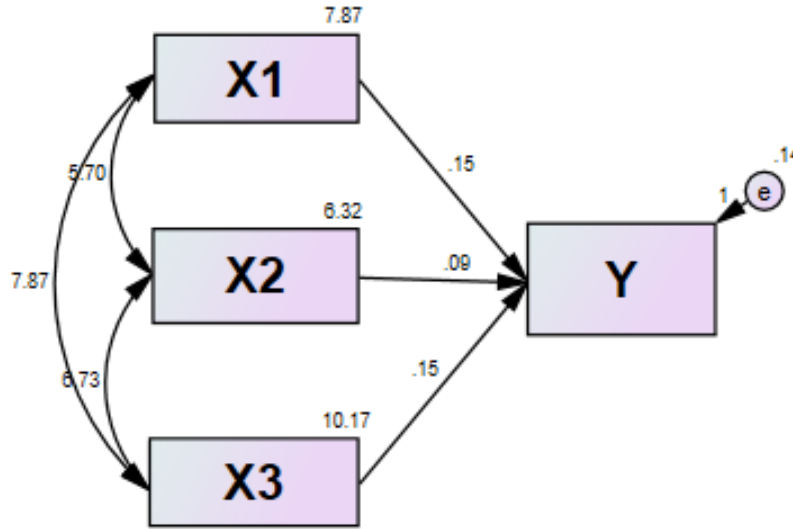


Figure 2 calculation results using AMOS (Unstandardized)

Figure 2 is the result of AMOS calculations using the unstandardized category. Figure 2 shows that the effect between X_1 and X_3 on Y has the same value, namely 0.15, while the effect between X_2 on Y is 0.09. Furthermore, when viewed from the relationship between the independent variables, it shows that $X_1 \leftrightarrow X_2$ is 5.70, while the $X_1 \leftrightarrow X_3$ relationship is 7.87 and the $X_2 \leftrightarrow X_3$ relationship is 6.73.

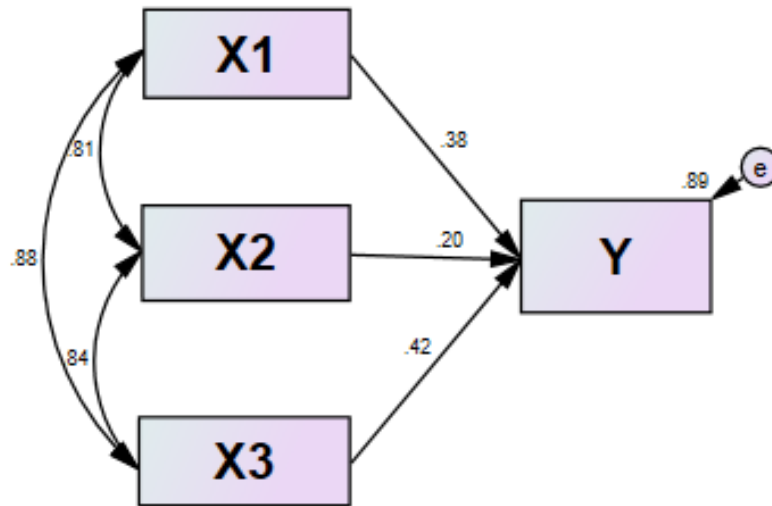


Figure 3 calculation results using AMOS (Standardized)

Similar to Figure 2, Figure 3 is the result of AMOS calculations, it's just that this image uses the standardized category. Figure 3 shows that the variable X_3 (Social Competence) has a higher influence than the influence of X_1 (Pedagogical Competence) and X_2 (Personality Competence) on Y (Student Learning Achievement), while the results are respectively the influence of $X_1 \rightarrow Y$ of 0.38, while the effect of $X_2 \rightarrow Y$ is 0.20, and the effect of $X_3 \rightarrow Y$ is 0.42. Furthermore, the relationship of each independent variable (X) shows that $X_1 \leftrightarrow X_2$ is 0.81, while the $X_1 \leftrightarrow X_3$ relationship is 0.88 and the $X_2 \leftrightarrow X_3$ relationship is 0.84.

- Test results: H_0 is rejected p -value < 0.05).
- The variability that occurs in Y is 89.0% can be explained together by X_1 , X_2 , and X_3 . The remaining 11.0% is explained by other variables not examined.
- The test results for each coefficient cannot indicate. X_1 , X_2 , and X_3 had a significant effect on Y ($p < 0.05$). The magnitude of the effect of X_1 , X_2 , and X_3 on Y

As well as described above, research related to learning achievement is very numerous. Some research results that show factors that influence students' learning achievement to include: (Alshammari et al. 2017; Gwo-Jen Hwang, et al. 2013; Sari, 2013). Novelty in this research is this research conducted in higher education, lecturers and students as a subject and object of research and only internal competence of lecturers conducted research on student learning achievement.

In addition to the three competencies tested in this study, there are four competencies that a lecturer should have. This proves that the importance of lecturer competence in improving student learning achievement, some of the competencies that lecturers must have include: First, pedagogical competence, this is related to the management of students in this case, students. Lecturers who act as teachers and even educators must be able to make lesson plans, deliver information and knowledge as designed and be able to assess the results of the learning process.

The second competency is personality competence, this competency requires lecturers to have speech, attitude and behavior even to dress as good role models for their students. The third competency is social competence, this competency allows lecturers to interact with their social environment both with students, fellow lecturers, employees and even with the entire educational community. Several things related to social competition include empathy, having a positive view, being straightforward and having openness, and having an orientation towards achieving goals. The last competency is professional competence, this places more emphasis on mastering material in accordance with the field of knowledge, apart from being skilled in conducting research and community service, also being able to develop and apply research results and community service.

In this study, it is inseparable from the limitations of the research contained therein, as for some of the limitations in this research are: This research was only conducted at colleges with the scope of the faculty of social science education, so the results of this study could not be generalized to the characteristics of research subjects that were located or broad research used. Therefore it is possible for further researchers to carry out research with the day after tomorrow a larger area. In addition, this study only presents a portion of the lecturers' competencies, using multiple regression analysis tools. The opportunity for further researchers is very possible for further research to be carried out by examining the overall competence of existing lecturers and their relationship with other variables related to student abilities after going through the lecture process.

4. Conclusion

This study proves that lecturer competence has a positive influence in maximizing student learning outcomes in social science education courses. The lecturer competency that has the highest influence is on the ability of the lecturer in carrying out the tasks or work that is charged to him, especially those relating to learning models and techniques used by the lecturer so that the lecturer presents active, creative and fun learning.

The implication of this research in the world of higher education, in particular, is that when becoming a lecturer is required to have conditions that will be attached to him, the competence of lecturers consisting of six aspects, namely knowledge, understanding, abilities, values, attitudes and interests. This study only examines the three aspects of competence, knowledge, understanding and ability, which in turn can present a fun learning process and maximum output and outcomes.

For the next researcher, it would be nice to use other variables that are associated with the competency of educators and students both positioned as latent variables, moderator variables, moderating variables and control variables. In addition, further researchers are advised to expand the study population and sample areas used.

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References

- Alshammari, F., Saguban, R., Pasay-an, E., Altheban, A., & Al-Shammari, L., (2017), "Factors affecting the academic performance of student nurses: A cross-sectional study", *Journal of Nursing Education and Practice*, vol. 8, no.1, pp. 60.
- Assessment, P., & Started, G. (n.d.), Program Assessment Process (Learning Outcomes Assessment).
- Baker, D. P., Motoko Akiba, LeTendre, G. K., & Wiseman, A. W., (2001), "Worldwide Shadow Education: Outside-School Learning, Institutional Quality of Schooling, and Cross-National Mathematics Achievement", *Educational Evaluation and Policy Analysis*, vol. 23, no.1, pp. 1–17.

- Carson, D., (1993), A philosophy for marketing education in small firms, *Journal of Marketing Management*, vol. 9, no. 2, pp. 189–204.
- Chiang, T. H. C., Yang, S. J. H., & Hwang, G. J., (2014), "An augmented reality-based mobile learning system to improve students' learning achievements and motivations in natural science inquiry activities", *Educational Technology and Society*, vol. 17, no. 4, pp. 352–365.
- Corbeil, M. E. (n.d.). (2011), "College of Education Program Coordinator : Office Hours : Ed, B., The Effects of Study Habit on the Academic Performance of Students : a Case Study of Some Secondary Schools in Ogun State", By *Omotere Tope*, pp.1–14.
- European Commission, (2013), "Supporting Teacher Competence Development for Better Learning Outcomes", *European Commission, Education and Training*, pp. 41.
- Ferguson, H. B., Bovaird, S., & Mueller, M. P., (2007), "The impact of poverty on educational outcomes for children", *Paediatrics and Child Health*, vol. 12, no.8, pp. 701–706.
- Gaffar, V., Ridwanudin, O., Trinugraha, B., & Riswanto, A., (2019), "The influence of website navigational design on improving tourism performance: Empirical studies on sport tourism providers in Indonesia", *Research in World Economy*, vol. 10, no. 01.
- Greaney, V., & Kellaghan, T. (2019), *Assessing national achievement levels in education* (Vol. 1). <http://books.google.com/books?hl=en&lr=&id=v9ex6CvPXfgC&oi=fnd&pg=PR5&dq=Assessing+National+Achievement+Levels+in+Education&ots=hAxBHSRrIQ&sig=Qqtn00wguPIcUuLYgHC3O-mV-IA>, Accessed Day: July 7.
- Gwo-Jen Hwang, Fan-Ray Kuo, Nian-Shing Chen, H.-J. H., (2013), "Effects of an Integrated Concept Mapping and Web-based Problem-Solving Approach on Students' Learning Achievements, Perceptions and Cognitive Loads", *Computer & Education*.
- Henderson, S., Petrosino, A., Guckenbug, S., & Hamilton, S., (2007), "Measuring how benchmark assessments affect student achievement", *Issues & Answers Report REL*, (039).
- Hightower, A. M., Lloyd, S. C., & Swanson, C. B., (2011), "Improving student learning by supporting quality teaching", *Editorial Projects in Education, Inc.*, vol 56, no. (December).
- Hout, M., Green, F., Zhu, Y., Greenbank, P., Hepworth, S., & Wilton, N., (2011), "Working class students and the career decision- making process", *Oxford Economic Papers*, vol. 25, no. 1 (January), pp. 85–100.
- Keith, T. Z., (2015), *Multiple Regression and Beyond An Introduction to Multiple Regression and Structural Equation Modeling*. New York: Routledge Falmer - Taylor & Francis Group.
- Liakopoulou, M., (2011), "The Professional Competence of Teachers : Which qualities , attitudes , skills and knowledge contribute to a teacher ' s effectiveness ?", *International Journal of Humanities and Social Science*, vol. 21, no. 1, pp. 66–78.
- Long, C. S., Ibrahim, Z., & Kowang, T. O., (2014), "An analysis on the relationship between lecturers competencies and students satisfaction", *International Education Studies*, vol. 7, no. 1, pp. 37–46.
- Maher, A., (2004), "Learning Outcomes in Higher Education: Implications for Curriculum Design and Student Learning", *The Journal of Hospitality Leisure Sport and Tourism*, vol. 3, no. 2, pp. 46–54.
- Nbina, J., (2012), "Global journal of educational research", *Global Journal of Educational Research*, vol. 11, no. 1, pp. 15–18.
- Paulo, S., Shewbridge, C., Nusche, D., & Herzog, H.-D., (2009), "Evaluation and a Sessment Frameworks for Improving School Outcomes Common Policy Challenges", *Education and Training Policy*.
- Pituch, Keenan A & Stevens, J. P., (2016), *Applied Multivariate Statistics for the Social Sciences Analyses with SAS and IBM's SPSS*, (16th ed.), New York, Routledge Falmer - Taylor & Francis Group.
- Randolph, K. A. & L. L. M, (2019), *Basic Statistics in Multivariate Analysis*, Oxford University Press, https://books.google.co.id/books?hl=id&lr=&id=WgSnudjEsrMC&oi=fnd&pg=PP1&dq=Randolph,+Karen+A.+%26+Laura+L.+Myers.+%282013%29.+Basic+Statistics+in+Multivariate+Analysis.+Oxford:+Oxford+University+Press.&ots=kSbUdGkujO&sig=dkPy9ikLlpHznZFDmdt4BGValaU&redir_esc, Accessed Day: July 7.
- Riswanto, A, Hurriyati, R., Wibowo, L. A., & Gaffar, V., (2019a), "Effect of market orientation on business performance in msme as mediating by dinamic marketing capabilities", *Quality - Access to Success*, vol. 20, no. 172, pp. 78-83.
- Riswanto, A, Hurriyati, R., Wibowo, L. A., & Gaffar, V., (2019b), "Empirical assessment of the role of product innovation in dynamic marketing capabilities and company performance", *Quality - Access to Success*, vol. 20, no. 173, pp. 64-67.
- Riswanto, Ari, & Aryani, S., (2017), "Learning motivation and student achievement: description analysis and relationships both", *International Journal of Counseling and Education*, vol. 2, no. 21, pp. 42–47.
- Riswanto, Ari, Rasto, R., Hendrayati, H., Saparudin, M., Abidin, A. Z., & Eka, A. P. B., (2020), "The role of

- innovativeness-based market orientation on marketing performance of small and medium-sized enterprises in a developing country", *Management Science Letters*, vol. 10, no. 9, pp.1947–1952.
- Romi MV, Ahman E, Disman ES, Riswanto A., (2020), "Islamic Work Ethics-Based Organizational Citizenship Behavior to Improve the Job Satisfaction and Organizational Commitment of Higher Education Lecturers in Indonesia", *International Journal of Higher Education*, vol. 9, no. 2, pp. 78-84.
- Sadler, D. R., (1998), "Formative Assessment: revisiting the territory", *Assessment in Education: Principles, Policy & Practice*, vol. 5, no. 1, pp. 77–84.
- Sari, A. P., (2013), "roving Students' English Achievement Through Mnemonic For The Fourth Grade Students Of Sd N 3 Karanganyom Klaten In The First Semester," *Faculty Of Languages And Arts State University Of Yogyakarta*. Faculty of Languages and Arts State University of Yogyakarta.
- Shafi, M., (2014), "Research Papers Impact of Perceived Teachers' Competence on Students' Performance : Evidence for Mediating", *I-Manager's Journal on Educational Psychology*, Vol. 8, No. 1.
- Soetjipto, N., Susilo, D. E., & Riswanto, A., (2020), "Supply chain strategies in mediating the effect of knowledge management on business performance", *Humanities and Social Sciences Reviews*, vol. 8, no. 1, pp. 448-455.
- Sri Trisnaningsih and Suparwati, (2007), "The Factors That Influence To Lecturers Performance With Motivation As an Intervening Variable, pp.1–25.
- Sri Rahayu Ningsih, Disman , Eng Ahman , Suwatno , Ari Riswanto, (2020), "Effectiveness of Using the Project-Based Learning Model in Improving Creative-Thinking Ability, *Universal Journal of Educational Research*, vol. 8, no. 4, pp. 1628 - 1635.
- Sutangsa, Suryadi, A., Hufad, A., Komar, O., & Riswanto, A., (2019), "Entrepreneurial Skills at Retirement Age: Analysis of the Importance of Training for Retiring Employees in Bandung City", *International Journal of Entrepreneurship*, vol. 23, no. 2.
- Thomas, J. W., (2000), "A Review of Research on Project-Based Learning". *Learning*, 94903, 46.
- Wibowo, L., Widjajanta, B., Fadillah, A., Riswanto, A., Aprianti, V., Widjaja, Y., Eka, A., Sujono, H., and Romi, M., (2020), 'Supply chain analysis of hedonic shopping value on behavioral intention creation of multinational footwear company', *Uncertain Supply Chain Management*, vol. 8, No.4, pp. 745–752.
- Yien, J., Lin, Y., Hwang, G.-J., & Lin, Y.-C, (2011), "A Game-Based Learning Approach To Improving Students' Learning Achievements in a Nutrition Course". *The Turkish Online Journal of Educational Technology*, vol. 10, no. 2, pp. 1–10.
- Youssef, H. A. M., & Mansour, M. A. M., (2012), "The Effect of Concept Mapping on Students' Learning Achievements and Interests in Taif University", *Life Science Journal*, vol. 9, no. 2, pp. 346–353.

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