



The Effect Of Collaborative Learning Management And Academic Engagement On Statistics Learning Outcomes With Learning Motivation As A Mediating Variable (Case Study Of Diploma-3 Office Administration Students At Pamulang University)

Edi Junaedi ¹⁾; Liza Nora ²⁾; Andry Priharta ³⁾; Hasanah ⁴⁾

^{1,2,,3,4)} Universitas Muhammadiyah Jakarta

Email: ¹⁾ 25030600004@student.umi.ac.id

How to Cite :

Junaedi, E., Nora, L., Priharta, A., Hasanah. (2026). The Effect Of Collaborative Learning Management And Academic Engagement On Statistics Learning Outcomes With Learning Motivation As A Mediating Variable (Case Study Of Diploma-3 Office Administration Students At Pamulang University). EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi Dan Bisnis, 14(3). DOI: <https://doi.org/10.37676/ekombis.v14i3>

ARTICLE HISTORY

Received [31 December 2025]

Revised [14 July 2026]

Accepted [18 July 2026]

KEYWORDS

Collaborative Learning Management, Academic Engagement, Learning Motivation, Learning Outcomes, Statistics.

This is an open access article under the [CC-BY-SA](#) license



ABSTRACT

This study aims to analyze the influence of collaborative learning management and academic engagement on the Statistics learning outcomes of students in the Diploma-3 Office Administration Study Program at Pamulang University, with learning motivation as a mediating variable. The study used a quantitative approach with an explanatory research approach. The sample size was 150 students, selected through purposive sampling. Data were collected using a Likert-scale questionnaire and analyzed using path analysis. The results indicate that collaborative learning management and academic engagement have a positive and significant effect on student learning motivation and learning outcomes. Furthermore, learning motivation significantly influences learning outcomes and acts as a mediating variable in the relationship between collaborative learning management and academic engagement and learning outcomes. These findings emphasize the importance of collaborative learning management and increased academic engagement in improving Statistics learning outcomes.

INTRODUCTION

Higher education in the era of digital transformation demands a learning model that focuses not only on transferring knowledge from lecturers to students but also on developing critical thinking, collaborative skills, and problem-solving. In the context of the Diploma-3 Office Administration Study Program at Pamulang University, statistics courses are a crucial component that forms the basis of students' analytical skills, particularly in relation to work requirements that require competency in data processing, interpretation of numerical information, and

preparation of evidence-based administrative reports. Therefore, the effectiveness of the Statistics learning process is an urgent matter that requires serious attention in learning management.

Empirical phenomena show that various obstacles remain in the Statistics learning process, including low student active involvement in class discussions, the dominance of one-way lecture methods, students' difficulties in understanding statistical calculation concepts, and low ability to apply theory to practical contexts. These conditions have an impact on the achievement of suboptimal learning outcomes, as reflected in the average academic grades of students which are still below the competency standards set by the study program. This indicates that the learning management model implemented so far has not been fully able to facilitate students' learning needs comprehensively.

Collaborative learning management is a process of managing learning activities that integrates cooperation among students in groups to achieve learning objectives through planned and directed interactions. In this process, the lecturer acts as a facilitator who designs learning strategies, organizes group formation, guides discussion dynamics, and continuously evaluates the progress and results of group work. This approach emphasizes shared responsibility, positive interdependence, and the active involvement of each member in understanding the material and completing academic assignments. Collaboration is joint involvement in a coordinated effort to solve problems together. Collaborative interactions are self-directed with shared goals, symmetrical structures with high levels of negotiation through interactivity and interdependence (Hermawan, 2023).

Previous studies examining collaborative learning have shown consistent findings. For example, Johnson & Johnson (2019) and Slavin (2020) report that structured group work significantly contributes to improved academic performance. These findings align with research confirming that social interaction in learning strengthens understanding through communication and collaborative problem-solving. However, previous research has limitations: it has predominantly been conducted at the elementary or secondary school level, rather than in vocational or higher education contexts, and has not focused much on numerical-based courses such as Statistics.

Academic engagement is a crucial element in ensuring the effectiveness of the learning process, particularly in Statistics courses, which demand cognitive activity, persistence, and active student interaction. The level of student participation is reflected not only in physical presence but also in the extent to which they engage behaviorally, emotionally, and cognitively in class activities and group work. Systematically managed collaborative learning has the potential to strengthen this engagement by creating a learning environment that encourages interaction, the exchange of ideas, and shared responsibility for understanding the material.

Learning motivation acts as an internal driver that drives students to actively participate, maintain perseverance in completing academic assignments, and demonstrate commitment to understanding the learning material. In the context of Statistics learning, which requires analytical understanding and precision in data processing, learning motivation functions as a driving force that influences the level of student engagement in the learning process. Learning motivation can grow from internal factors such as interests, needs, and personal goals for academic achievement, as well as from external factors such as engaging learning strategies, lecturer support, a conducive classroom atmosphere, and group work dynamics.

In collaborative learning, increased motivation to learn is created through positive social interactions, support among group members, and a sense of responsibility for completing tasks together. This can foster a learning environment that fosters student enthusiasm and interest in achieving optimal results. Conversely, low motivation to learn often leads to suboptimal learning outcomes, demonstrated by disinterest in learning, low participation, and minimal effort to deeply understand the material.

This phenomenon reinforces the importance of learning motivation as a factor that needs to be considered in improving student academic achievement. Therefore, collaborative learning management is not only aimed at increasing the effectiveness of the learning process but is also expected to foster student motivation, thereby significantly contributing to improved Statistics learning outcomes.

Seeing this gap, this study presents novelty in the form of: 1) analysis of the application of collaborative learning management not only as a learning method, but as a learning management system that includes planning, organizing, implementing, and evaluating; 2) focusing on Statistics courses in vocational colleges that require practical data-based competencies; 3) a quantitative empirical approach to test the magnitude of the influence of collaborative learning on student learning outcomes using a regression model.

Based on the urgency of the problem and the gaps in previous research, this study specifically aims to analyze the influence of collaborative learning management, academic engagement, and learning motivation on the learning outcomes of Statistics students in the D-3 Office Administration Study Program at Pamulang University. This research is expected to provide theoretical contributions in the development of learning models in higher education and provide practical benefits for lecturers and study programs in improving the quality of learning outcomes.

LITERATURE REVIEW

Collaborative Learning Management

Collaborative learning management is a form of learning management that places students at the center of the learning process through structured group work activities to achieve shared academic goals. The lecturer acts as a facilitator, providing guidance, managing group dynamics, and evaluating the learning process and outcomes (Arends, 2018).

According to (Johnson & Johnson, 2019), collaborative learning is a small-group-based learning approach that allows students to learn together through discussion, negotiation of meaning, and collective problem-solving, thereby significantly improving academic understanding and skills. Similarly, Slavin (2020) emphasized that collaborative learning strategies provide opportunities for students to take responsibility for their own learning process and that of their groupmates through supportive and constructive interactions that can improve academic achievement.

Collaborative learning managed through instructional planning, organizing group activities, monitoring interaction processes, and evaluating group performance can create a conducive learning environment for developing communication, critical thinking, and teamwork skills (Uno, 2018). Collaborative learning management indicators in this study include: 1) Learning planning; 2) Group activity management; 3) The role of the lecturer as a facilitator; and 4) Evaluation of the learning process.

Academic Engagement

Academic engagement refers to the level of student participation in the learning process, both behaviorally, emotionally, and cognitively. According to Fredricks et al., engagement encompasses three main dimensions: behavioral engagement, which is seen through active participation and discipline; emotional engagement, which is expressed as interest and enjoyment in learning; and cognitive engagement, which is expressed as intellectual effort in understanding the material (Fredricks et al., 2004). In the context of collaborative learning, academic engagement is a crucial factor in determining the effectiveness of group interactions, as each student is required to contribute to problem-solving and building shared understanding.

Vygotsky's social-constructivist theory asserts that engagement occurs when students actively interact within a developmental zone supported by peers and instructor instruction

(Vygotsky, 1978). Collaborative learning creates an environment that encourages positive interdependence, thus naturally increasing engagement. Kuh similarly argued that the level of student engagement is a strong predictor of learning outcomes, the quality of the academic experience, and student retention (Kuh, 2009). Therefore, including the academic engagement variable as X2 in the study is not only theoretically relevant but also addresses the empirical needs seen in the dynamics of Statistics learning.

Learning Motivation

Learning motivation is a psychological factor that influences students' success in achieving their educational goals. Motivation functions as an internal drive that fosters enthusiasm for learning activities, increases persistence in completing assignments, and encourages maximum effort in the face of academic obstacles. Learning motivation can be understood as the force that drives individuals to engage in the learning process and achieve optimal performance in line with desired goals (Uno, 2018: 23).

According to Sardiman (2020: 75), learning motivation is the overall driving force within students that generates learning activities and provides direction for those activities, thereby achieving learning goals. This opinion emphasizes that motivation plays a role in determining the intensity of learning effort, the quality of cognitive engagement, and persistence in facing difficult material. High learning motivation enables students to better allocate study time effectively, actively ask questions, and engage more in academic discussions.

Learning motivation is divided into two forms: intrinsic motivation and extrinsic motivation. Intrinsic motivation arises from self-awareness, interest, curiosity, and the need for personal development, while extrinsic motivation is influenced by rewards, social support, academic competition, and learning assessment systems (Winkel, 2018: 112). In the context of Statistics learning, which demands precision and analytical skills, both forms of motivation play a significant role in enhancing student readiness to learn and active engagement.

Learning motivation is also seen as a variable that influences learning outcomes. This aligns with Uno's (2018: 34) view that the higher a student's motivation, the greater their likelihood of achieving optimal academic achievement. Similarly, research shows that motivation acts as a driving force for maintaining consistent learning and improving comprehension (Slavin, 2020: 147). Therefore, learning motivation is not only related to psychological drive but also has a direct impact on academic achievement.

In a collaborative learning environment, student motivation can increase through group interaction, emotional support from fellow students, and a sense of shared responsibility in completing academic assignments. This situation demonstrates the theoretical link that collaborative learning management strategies can create meaningful learning experiences and ultimately improve learning motivation and learning outcomes (Johnson & Johnson, 2019: 66). Therefore, increasing learning motivation is an important part of explaining the influence of collaborative learning on student Statistics learning outcomes.

Learning Outcomes

Learning outcomes are defined as the abilities students acquire after going through the learning process, demonstrated through changes in behavior, knowledge, skills, and attitudes. Learning outcomes are an indicator of the success of the learning process, measurable through academic assessments such as assignment grades, quizzes, mid-term exams, and final exams (Uno, 2018).

According to Slavin (2020), learning outcomes represent a student's level of understanding of the material studied and their ability to apply learned concepts to problematic situations. Furthermore, Sugiyono (2021) explains that learning outcomes are the output of the learning process that can be observed and measured in the form of academic scores or grades.

Hypothesis Development

Several previous studies have shown that collaborative learning has a significant impact on improving learning outcomes. Collaboration-based learning models are considered capable of increasing academic motivation, active participation, and mastery of material through structured group interactions (Johnson & Johnson, 2019; Slavin, 2020). However, some previous studies have emphasized learning methods rather than management or systematically managing the learning process.

Previous research has shown that collaborative learning management not only directly impacts learning outcomes but can also improve students' psychological well-being, particularly their motivation to learn, which ultimately impacts academic achievement. Collaborative learning provides a broader space for interaction, opportunities to exchange ideas, and social support among group members, thereby fostering internal motivation to learn more actively and responsibly.

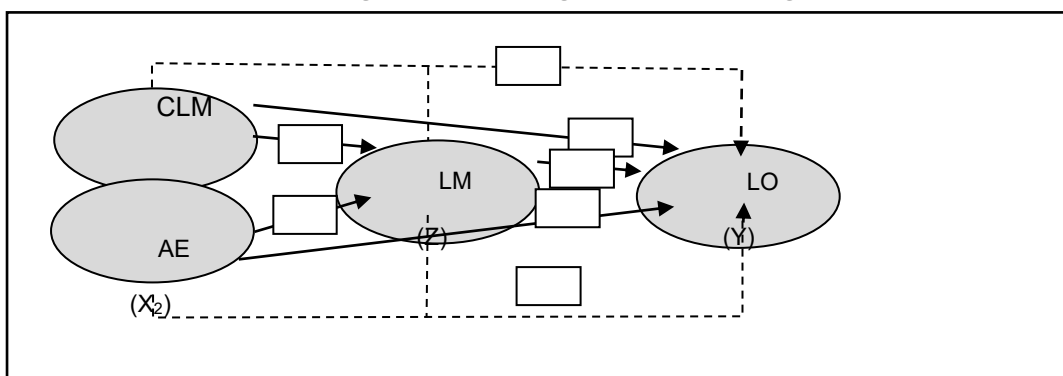
According to (Uno, 2018), learning motivation is a psychological factor that significantly determines student success because it encourages someone to keep trying when facing difficulties and determines how actively they engage in the learning process. Furthermore, (Slavin, 2020) emphasized that cooperative learning strategies can increase academic motivation by emphasizing positive interdependence and group rewards, which encourage students to work more optimally toward shared academic goals.

Referring to the theories of experts and previous research findings as well as the research gaps that have been identified, the formulation of the proposed hypothesis is as follows:

1. H1: Collaborative Learning Management is suspected to have an effect on Student Learning Motivation (CLM $\rightarrow$ SLM).
2. H2: Academic Engagement is suspected to have an effect on Student Learning Motivation (AE $\rightarrow$ SLM).
3. H3: Collaborative Learning Management is suspected to have an effect on Student Learning Outcomes (CLM $\rightarrow$ LO).
4. H4: Academic Engagement is suspected to have an effect on Student Learning Outcomes (AE $\rightarrow$ LO).
5. H5: Learning Motivation is suspected to have an effect on Student Learning Outcomes (LM $\rightarrow$ LO).
6. H6: Learning Motivation is suspected to mediate the relationship between Collaborative Learning Management and student Learning Outcomes (CLM $\rightarrow$ LM $\rightarrow$ LO).
7. H7: Learning Motivation is suspected to mediate the relationship between Academic Engagement and student Learning Outcomes (AE $\rightarrow$ LM $\rightarrow$ LO).

Thinking Framework

Figure 1: Thinking Framework Diagram.



METHODS

This study uses a quantitative approach with an explanatory research approach. The aim is to analyze the causal relationship between the variables studied, namely the influence of Collaborative Learning Management and Academic Engagement on student statistics learning outcomes, by adding Learning Motivation as a mediating variable. This approach was chosen because it is suitable for testing hypotheses through statistical analysis and measuring the magnitude of the influence between variables based on numerical data obtained from respondents.

Research Population and Sample

The population in this study was all students of the Diploma-3 Office Administration Study Program at Pamulang University who took Statistics courses in the odd semester of the 2024/2025 academic year and the odd semester of the 2025/2026 academic year (a population of 240 students). Given the small population (100-500 students) and relatively homogeneous characteristics, the sampling technique used was purposive sampling, a method of determining samples based on specific criteria relevant to the research objectives. These students were students who had taken and completed the Statistics course. The sample size was set at a minimum of 50% of the population. The researcher selected a sample of 150 students to provide strong representation and reduce the margin of error. This number was considered representative for statistical regression analysis. Basic Sample Size Rules according to Slovin's formula ($n = N / (1 + N e^2)$, where N = population and e = margin of error 5-10%), for a population of 240, the ideal sample is at least around 120 respondents (50%), which is in accordance with the purposive sampling criteria for homogeneity.

Data Types and Sources

1. Primary data, obtained by distributing a Likert-scale questionnaire to respondents.
2. Secondary data, derived from academic documents, learning outcomes, and relevant literature on collaborative learning management, learning motivation, and learning outcomes.

Research Instrument

The research instrument used a five-point Likert scale questionnaire, ranging from 1 (strongly disagree) to 5 (strongly agree). The instrument included:

1. Variable X1 (Collaborative Learning Management) with indicators of learning planning, group activity management, the lecturer's role as a facilitator, and evaluation of the learning process.
2. Variable X2 (Academic Engagement) with indicators of student participation in the learning process, including behavioral, emotional, and cognitive aspects.
3. Variable M (Learning Motivation) with indicators of learning persistence, academic interest, active involvement in assignments, self-confidence, and achievement orientation.
4. Variable Y (Statistics Learning Outcomes) was measured through academic grades and understanding of statistical concepts.

The instrument was tested for validity and reliability before use to ensure measurement accuracy and consistency.

Data Analysis Techniques

1. Validity and Reliability Test

To test the instrument's suitability, validity was calculated using the Pearson Product Moment correlation, while reliability was determined using the Cronbach Alpha value. The instrument was declared reliable if the Alpha value was > 0.70 .

2. Coefficient of Determination (R^2) Test

Used to determine the contribution of the independent variables to the dependent variable.

3. Partial t-Test

Used to test the significance of the influence of each variable on student learning outcomes.

Research Location and Time

The research was conducted in the Diploma-3 Office Administration Study Program at Pamulang University on students who had taken Statistics courses in the odd semester of the 2024/2025 academic year and the odd semester of the 2025/2026 academic year.

RESULTS**Demographic Data of Research Subjects****Table 1: Demographic Data of Research Subjects**

Demographic Variables	Category	Frequency	%
Gender	Man	33	22
	Woman	117	78
Age	17–19 years old	29	19
	20–22 years old	120	80
	> 22 years old	1	0.6
Last GPA	< 2.50	0	0
	2.51–3.00	1	0.6
	3.01–3.50	89	59
	> 3.50	60	40
Frequency of attendance of Statistics lectures	Very rarely	0	0
	Seldom	0	0
	Quite often	0	0
	Often	29	19
	Very often	121	80.6

Validity and Reliability Test Result Data**Table 2 Validity and Reliability Test Result Data**

Variable	Indicat or code	Descriptive analysis			Validity			Reliability		
		Frequen cy	Mea n	St. deviati on	Outer loadi ng	AV E	Valid/Inva lid	Composi te Reliabili ty	Cronbac h's Alpha	Reliable/ Not Reliable
Collaborat ive Learning Managem ent	CLM1	150	4.053	0.900	0.903	0.709	Valid	0.936	0.917	Reliable
	CLM2	150	4.000	1.028	0.776		Valid			
	CLM3	150	3.547	1.209	0.901		Valid			
	CLM4	150	3.907	1.016	0.768		Valid			
	CLM5	150	4.167	0.976	0.854		Valid			
	CLM6	150	4.140	0.945	0.840		Valid			
Academic Engagem ent	AE1	150	4.127	0.904	0.844	0.680	Valid	0.921	0.898	Reliable
	AE2	150	4.213	0.891	0.848		Valid			
	AE3	150	4.320	0.733	0.711		Valid			
	AE4	150	4.100	0.772	0.795		Valid			
	AE5	150	4.107	0.865	0.850		Valid			
	AE6	150	4.127	0.802	0.817		Valid			
Learning Motivation	LM1	150	3.787	1.135	0.812	0.638	Valid	0.914	0.886	Reliable
	LM2	150	3.840	1.114	0.749		Valid			
	LM3	150	3.713	1.162	0.776		Valid			
	LM4	150	3.947	1.094	0.832		Valid			
	LM5	150	4.140	0.968	0.814		Valid			
	LM6	150	4.173	0.957	0.807		Valid			
Learning Outcomes	LO1	150	4.207	0.786	0.839	0.636	Valid	0.912	0.884	Reliable
	LO2	150	4.220	0.747	0.699		Valid			
	LO3	150	4.307	0.702	0.822		Valid			
	LO4	150	4.167	0.803	0.743		Valid			
	LO5	150	4.267	0.830	0.844		Valid			
	LO6	150	4.253	0.776	0.826		Valid			

The results of the outer model test show that there is one indicator with an outer loading value <0.70 , namely HB2 with a value of 0.699, but it can still be maintained because it is close to the minimum limit and removing it does not significantly increase Composite Reliability (CR) and AVE. Meanwhile, the AVE value for all variables is >0.50 , indicating that each construct has adequate convergent validity. Meanwhile, in terms of reliability, all constructs have Cronbach Alpha and Composite Reliability values >0.70 , indicating that the instruments used are consistent and reliable.

R-Square Test Results Data

Table 3: R Square Test Result Data

	R-square	R-square adjusted
LO	0.540	0.530
LM	0.474	0.466

The R-square test for the Learning Outcomes variable yielded a value of 0.540, indicating a moderate influence. Therefore, it can be concluded that 54% of the learning outcomes in this study were influenced by collaborative learning management, academic engagement, and learning motivation.

Meanwhile, the R-square for learning motivation yielded a value of 0.474, indicating a weak influence. Therefore, it can be concluded that 47% of learning motivation was influenced by collaborative learning management and Academic Engagement.

Path Coefficient Test Results Data

Table 4: Path Coefficient Test Result Data

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
AE -> LO	0.380	0.386	0.130	2.926	0.002
AE -> LM	0.368	0.361	0.098	3.755	0.000
LM -> LO	0.171	0.175	0.076	2.256	0.012
CLM -> LO	0.276	0.273	0.097	2.859	0.002
CLM -> LM	0.379	0.389	0.091	4.174	0.000

Based on the path coefficient table related to the hypothesis test results, the following conclusions can be drawn:

1. The Academic Engagement variable has a positive influence on the Learning Outcomes variable, with a t-value of $2.926 > 1.65$ and a p-value of $0.002 < 0.05$.
2. The Academic Engagement variable has a positive influence on the Learning Motivation variable, with a t-value of $3.755 > 1.65$ and a p-value of $0.000 < 0.05$.
3. The Learning Motivation variable has a positive influence on the Learning Outcomes variable, with a t-value of $2.256 > 1.65$ and a p-value of $0.012 < 0.05$.

4. The Collaborative Learning Management variable has a positive influence on the Learning Outcomes variable with a t-value of $2.859 > 1.65$ and a p-value of $0.002 < 0.05$.
5. The Collaborative Learning Management variable has a positive influence on the Learning Motivation variable with a t-value of $4.174 > 1.65$ and a p-value of $0.000 < 0.05$.

From the data in the path coefficient table, it can be concluded that the most dominant variable is Academic Engagement on learning outcomes with a path coefficient value of 0.380 (original sample value O) with a t-value of $4.174 > 1.65$ and a p-value of $0.000 < 0.05$.

Mediation Test Results Data

Table 5: Mediation Test Results

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
CLM -> LM -> LO	0.065	0.068	0.033	1.973	0.024
AE -> LM -> LO	0.063	0.065	0.037	1.700	0.045

Based on the table above, regarding the results of the mediation test or indirect path coefficient, the following conclusions can be drawn:

1. The Collaborative Learning Management variable has an indirect effect on learning outcomes, with learning motivation acting as a mediator. This is evidenced by a t-value of $1.973 > 1.65$ and a p-value of $0.024 < 0.05$.
2. The Academic Engagement variable has an indirect effect on learning outcomes, with learning motivation acting as a mediator. This is evidenced by a t-value of $1.700 < 1.65$ and a p-value of $0.045 > 0.05$.

Based on the hypothesis testing and mediation tests, the conclusions can be drawn as shown in the table below.

Hypothesis Test and Mediation Test Results Data

Table 6: Data from Hypothesis Testing and Mediation Test Results

H	Hypothesis	Result
H1	Collaborative learning management has a positive and significant influence on students' learning motivation.	Accepted
H2	Academic Engagement has a positive and significant influence on students' learning motivation	Accepted
H3	Collaborative learning management has a positive and significant influence on student learning outcomes.	Accepted
H4	Academic Engagement has a positive and significant influence on student learning outcomes	Accepted
H5	Learning motivation has a positive and significant influence on student learning outcomes.	Accepted

H	Hypothesis	Result
H6	Learning motivation mediates the relationship between collaborative learning management and student learning outcomes.	Accepted
H7	Learning motivation mediates the relationship between Academic Engagement and student learning outcomes	Accepted

CONCLUSION

This study concludes that Collaborative Learning Management and Academic Engagement, mediated by student learning motivation, have a positive and significant effect on the Statistics learning outcomes of students in the Diploma-3 Office Administration Study Program at Pamulang University. The higher the quality of the implementation of Collaborative Learning Management and Academic Engagement, the higher the student learning outcomes.

LIMITATION

This study has several limitations. First, the scope of the study only included students in the Diploma-3 Office Administration Study Program at Pamulang University, so the findings cannot be generalized to other study programs or universities. Second, data collection used a questionnaire instrument based on respondents' perceptions, which has the potential to introduce subjective bias. Third, the research model focused only on collaborative learning management, academic engagement, and learning motivation, so other variables that could potentially influence Statistics learning outcomes were not examined in depth.

REFERENCES

- Arends, R. I. (2018). Learning to teach (10th ed.). McGraw-Hill Education.
- Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, 74(1), 59–109. <https://doi.org/10.3102/00346543074001059>
- Hermawan. (2023). Pembelajaran kolaboratif dalam pengembangan keterampilan berpikir kritis mahasiswa. *Jurnal Pendidikan*, 14(2), 115–126.
- Johnson, D. W., & Johnson, R. T. (2019). *Joining together: Group theory and group skills* (12th ed.). Pearson Education.
- Kuh, G. D. (2009). What student affairs professionals need to know about student engagement. *Journal of College Student Development*, 50(6), 683–706. <https://doi.org/10.1353/csd.0.0099>
- Sardiman, A. M. (2020). *Interaksi dan motivasi belajar mengajar*. RajaGrafindo Persada.
- Slavin, R. E. (2020). *Educational psychology: Theory and practice* (13th ed.). Pearson Education.
- Sugiyono. (2021). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Alfabeta.
- Uno, H. B. (2018). *Teori motivasi dan pengukurannya: Analisis di bidang pendidikan*. Bumi Aksara.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.

Winkel, W. S. (2018). *Psikologi pengajaran*. Grasindo