

Role of Student Psychology in Thinking Style and Teaching with Style of Lectures at Higher Education in Indonesia

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Abstract

The teaching method is crucial to the quality of education in any institution. The Indonesian institutions of higher education struggle with teaching quality and student success. The Indonesian Ministry of Higher Education has obstacles regarding student performance. Determining the role of student psychology in the relationship between teaching quality and learner performance at Indonesian Universities necessitated the development of a conceptual framework. The quantitative technique approach and partial least square (PLS) were implemented in this work to determine the findings. The research suggested that teachers should focus on the psychology of the students to improve their thinking and teaching styles. This study's focus is confined to Indonesian institutions of higher education. Notably, no previous research has presented theoretical and practical consequences on this topic in the existing literature. Therefore, this study has significant implications for literature and school administration in Indonesia to improve students' performance. In addition to the theoretical and practical consequences, this study identifies different gaps in the literature that future scholars must investigate.

Keywords: Student psychology, teacher thinking, teaching quality, learner performance, style of lectures

1. Introduction

In addition to teaching students the course material, higher education institutions in Indonesia also cultivate the students' personalities (Zahran, 2022). The Ministry of Education in Indonesia monitors professors' performance who provide creative lectures to pupils (Mustakim et al., 2020). Modern educational institutions are contemplating concentrating on presentation and conceptual learning to enhance student success (MHum, MHum, & MHum, 2016). Indeed, the education of pupils is not a simple undertaking, as it necessitates the knowledge and learning skills of the teachers (Kristiansen & Indarti, 2004). Conversely, teachers eradicate students' negative thoughts by boosting their self-esteem (Passini, Molinari, & Speltini, 2015). Zhong et al. (2021) argued that students' psychological health must be enhanced to provide them with a more suitable method of learning in the classroom. The administration of Indonesian higher education institutions has stringent controls over the quality of lectures offered to students (Basuki, Damayanti, & Dewi, 2018). The teacher's mindset significantly impacts students' well-being (Aditya, Nurhas, & Pawlowski, 2019; Harun et al., 2020). Teachers continually work toward advancing their pupils' personalities to provide them with better education (Jamaluddin et al., 2019). The quality of education can only be generated if teachers are self-motivated and well-suited to their jobs (Rokhyati, 2013). Indeed, teachers with greater

work professionalism are more concerned with resolving students' problems (Jusuf et al., 2020). Similarly, the student's performance is crucial since it reflects the quality of the teacher's lecture delivery to the class (Susilana, Hutagalung, & Sutisna, 2020). When a teacher is highly motivated and working to improve the performance of the students in an interesting way to develop their mental ability to a higher level, these teachers are more suitable for the teaching profession (Atrizka & Pratama, 2022; Fajar, Nurcahyo, & Sriratnasari, 2018; Kuliahana & Marzuki, 2020). As a result of this type of information, kids' performance is always enhanced. Indeed, teachers must ensure that each student has a unique mind (Fadhil & Sabic-El-Rayess, 2021; Wicaksono & Friawan, 2011), and determining the mental condition of children is quite challenging. Therefore, it is the teacher's job to create an engaging lecture suited for students of all levels. According to Zimmerman, Woolf, and Haley (2015), the quality of education is essential for improving student learning. Weng (2018) noted that students with superior teaching experience are more logical and creative than their peers. According to Samuel and Rahman (2018), the quality of instruction can increase students' academic experiences and allow them to develop new skills. Mulongo (2013) claimed that the perception of professors substantially affects the enhancement of lecture quality. Xia, Wang, and Zhang (2022) observed that teachers in China are working extra hours to improve their pupils' conceptual understanding. He

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and Chiang (2016) stated that students with a creative learning style are effective due to their innovative ideas and enhanced comprehension. However, the body of information is quiet regarding the connection between teacher thinking and teacher quality concerning the role of student psychology as a moderator. Therefore, the conceptual framework for determining the function of student psychology in the relationship between teaching quality and learner performance has been developed in this study. This study's focus is confined to Indonesian institutions of higher education. Notably, no previous research has presented theoretical and practical consequences on this topic in the existing literature. Therefore, this study has significant implications for literature and school administration in Indonesia to improve students' performance. In addition to the theoretical and practical consequences, this study identifies different gaps in the literature that future scholars must investigate.

2. Literature Review

2.1 Teacher Thinking Teaching Quality, and Learning Performance

A teacher has a crucial role in improving student performance since he is personally involved in teaching, and the pupils are reaping the benefits of his efforts (Arasid et al., 2018; Martha et al., 2021). Indeed, teaching is not a simple profession because it requires a logical way of thinking to boost employee performance (Pannen, Wirakartakusumah, & Subhan, 2019; Rahayu, 2019; Saleh & Mujahiddin, 2020). Teachers in China's educational institutions prepare lectures before entering the classroom since they are required to perform more efficiently (Saleh & Mujahiddin, 2020). Teachers in Denmark are similarly well-prepared to instruct pupils because they feel their performance can alter the students' learning behavior (Fadilah et al., 2022; Panis et al., 2020). Hidayat et al. (2018) highlighted that a teacher must be able to think critically since he is entrusted with a great level of responsibility to address crucial concerns.

On the other hand, Muluk et al. (2019) concluded that a teacher's superior cognitive abilities and advanced learning strategies could improve the performance of students in any class. Dachyar and Pratama (2015) noted that modern teachers use technology in the classroom but must be more creative to deliver successful learning for their pupils. Slamet et al. (2021) also concluded that the instructor possesses cognitive talents and that the pupils' performance can be elevated to an advanced degree based on these abilities. Similarly, teachers strongly motivated to deliver great education to their pupils must focus more on their rationality to comprehend the study material for

their students to provide it to them in the most effective manner (Bustami & Corebima, 2017; Maydiantoro et al., 2021). Huda and Hussin (2016) found that a teacher's motivation to give educational content to students in an innovative manner that is more advantageous to their learning might be influenced by the students' better future. A teacher must ensure that his lecture is delivered appropriately to the students, and he must collect student feedback to improve his teaching quality (Brewis, 2019; Sidik & Syfar, 2020). According to Kusumawati (2019), teachers have a crucial influence on the personality development of their students. Saputra, Hardinata, and Wanto (2019) noted that a teacher must ensure the pupils' learning achievement; otherwise, he should reconsider his teaching strategy. Krasner et al. (2009) revealed that the American school system has improved due to an increase in the quality of education and the provision of adequate learning materials by teachers. The teachers who rationally strengthen their students' learning are more likely to influence their students' productive performance improvement (Basuki et al., 2018). Fadhil and Sabic-El-Rayess (2021) found that students' performance in Copenhagen is reasonable due to the recruitment of world-class professors.

In contrast, Jamaluddin et al. (2019) noted that professors in Indonesia are improving their teaching approaches with the approval of the administration of the higher education department. According to Jusuf et al. (2020), a teacher is the best advisor for a student since he is directly related to the performance of the students. Susilana, Hutagalung, and Sutisna (2020) found that Canadian students are more productive due to the superior teaching facilities supplied by the Canadian department of higher education. Wicaksono and Friawan (2011) said that the best way to improve student performance is for teachers to be more imaginative and to consider the student's exceptional performance in a relational context. Aditya et al. (2019) suggested that the Ministry of Education in Indonesia should prioritize teachers' performance to ensure that they are trying to improve the student's learning capacity. Malaysian institutions' teachers diligently assess students' critical thinking skills to align their coursework with these skills and improve students' academic success (Rahim, Jaafar, & Arsad, 2021). Teachers can enhance the exceptional learning skills of their pupils by adopting more effective ways to improve student learning to the proper level.

H1. There is a relationship between teacher thinking and teaching quality.

H2. There is a relationship between teaching quality and learning performance.

2.2 Moderating Role of Student Psychology

Arasid et al. (2018) observed that students' psychological state significantly affects their academic performance. Martha et al. (2021) mentioned that teachers with a teaching approach could comprehend the psychology of their pupils to improve their learning performance. Pannen et al. (2019) showed that pupils with a deeper psychological understanding could acquire knowledge more logically for their development. Rahayu (2019) stated that teachers should not disregard student psychology because each student has a unique perspective and learning style. Saleh and Mujahiddin (2020) concluded that highly intelligent teachers construct study materials based on the student's learning capacities. Human psychology plays a crucial role in any individual's learning; nevertheless, higher education students are obliged to focus more on their own learning to build a deeper knowledge of course material (Dachyar & Pratama, 2015; Muluk et al., 2019). Higher education teachers in the United States study student psychology to guarantee that their students'

learning is consistent with the course material (Subiyakto et al., 2016). Hidayat et al. (2018) stated that a more effective strategy for learning could help students gain a higher level of comprehension of advanced knowledge. Students in various Indonesian higher education institutions come from multiple nations, and professors must comprehend this diversity to comprehend the students' diverse cultures and psychology (Jusuf et al., 2020; Susilana et al., 2020). Successfully delivering a lecture requires a better-adopted technique based on the teacher's experience, which can increase the students' learning (Fadhil & Sabic-El-Rayess, 2021). Rosser (2016) asserted that a student's psychology greatly impacts their ability to study because their mental approach is constrained. Thus, teaching productivity would be increased if teachers responded to student feedback and query reasonably and kindly (Abdullah, 2017; Elfindri et al., 2015).

H3. There is a moderating role of student psychology in the relationship between teaching quality and learning performance.

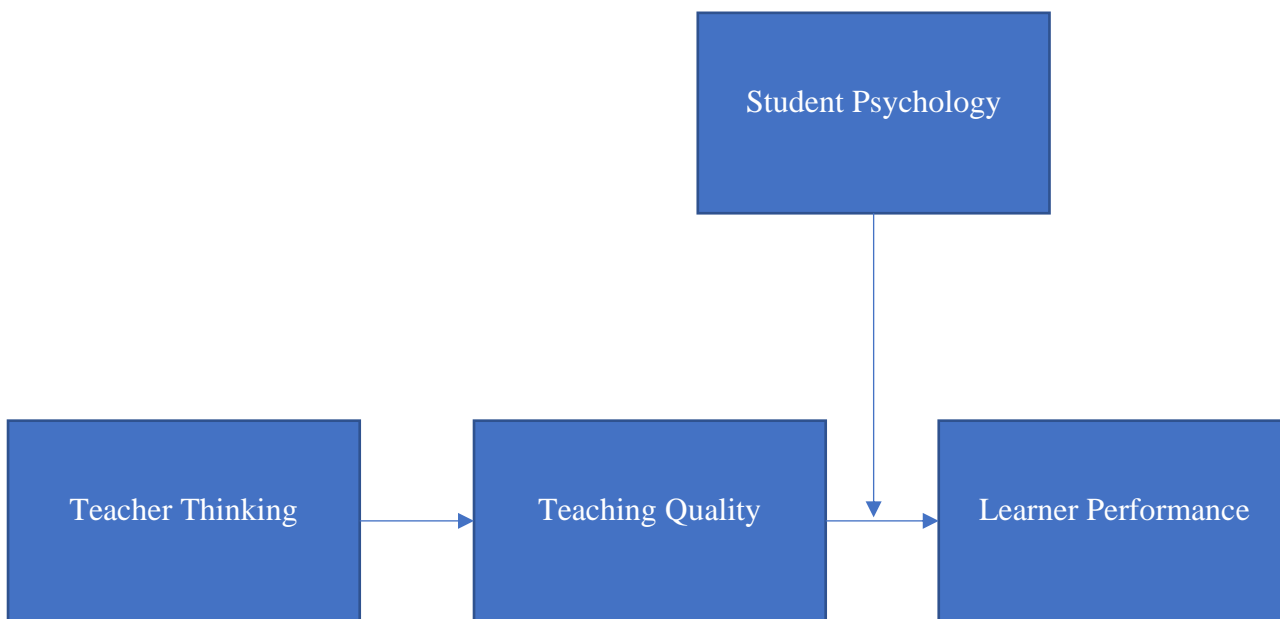


Figure 1. Conceptual Framework

3. Methodology

This study is based on quantitative data collected using a Likert scale questionnaire with five points. The Likert scale questionnaire is suitable for data collection since respondents easily understand it. In addition, random sampling was used to collect data for this study because this strategy is suited for the generalization of results. This study used a survey-based data collection strategy because it was deemed appropriate for reducing research time and expense. In this manner, the scale items from past studies

have been altered to quantify the link between variables included in the conceptual framework. The scale items from Zhang and Sun (2022) were adapted and used in this investigation since the Cronbach alpha for these scale items was more than 0.50, indicating their reliability. These scale components were modified to examine teacher thought, teaching quality, and student performance. This study utilized the same scale items previously used to determine the association between teacher thought. These assessment scales are included in the study's questionnaire to obtain participant responses. Indeed, these scale items

are straightforward and easily understood by the participants. Secondly, the scale items from Palos and Maricutoiu (2013) were adapted and used for teaching quality in this study since these measurement items were dependable, with a Cronbach alpha of at least 0.80. Importantly, these scale questions were modified for this study to examine the relationship between instruction and student performance. Certainly, this study selected the appropriate scale items previously utilized to determine the association between teaching quality and student achievement. In addition, these measurement scales are incorporated into the study's questionnaire to obtain participant responses. Undoubtedly, these scale items were straightforward and easily understood by the participants. In addition, the scale items from Passini et al. (2015) were adapted and used to moderate student psychology in this study because the Cronbach alpha for these scale items was more than 0.90. Adapted to test the moderating influence of student psychology on teaching quality and learner performance, these scale items were created for this study. This study has undeniably selected the appropriate scale items previously utilized to influence the association between student psychology. On the other hand, these measurement scales are incorporated into the study's questionnaire to obtain participant responses. In conclusion, the scale items from Zainuddin et al. (2019) were adapted and used for learner performance in this study because the Cronbach alpha for these scale items was more than 0.90. These scale items were modified for this study to examine the link between learner performance

and other study variables. Importantly, the correct scale items previously utilized to determine the association between learner performance have been incorporated into the current research. These assessment scales are included in the study's questionnaire to obtain participant responses. The study respondents were contacted in Bali, Indonesia, and their consent to complete the questionnaire was obtained verbally. Participants were assured that their personal information would not be disclosed to third parties. This study surveyed 900 participants who agreed to complete the questionnaire; 500 questionnaires were returned and used for data analysis. Consequently, the study's response rate is adequate because it is sufficient to validate the study's conclusions.

4. Findings

This study's quantitative data were analyzed using the Smart PLS software. The concurrent validity test was employed to evaluate the dependability and validity of the study's constructs. Fornell and Larcker (1981) advocated a Cronbach's alpha level of 0.70 for validating scale items. In this aspect, the study meets the suggested Cronbach's alpha level. According to this study, the recommended value for factor loadings is 0.60, and the average variance extracted (AVE) value is 0.50. This analysis revealed that all scale items have significant factor loadings and that the AVE threshold has been met. Therefore, this study's scale items have reliability and validity (see Figure 2). The results of convergent validity can be found in Table 1.

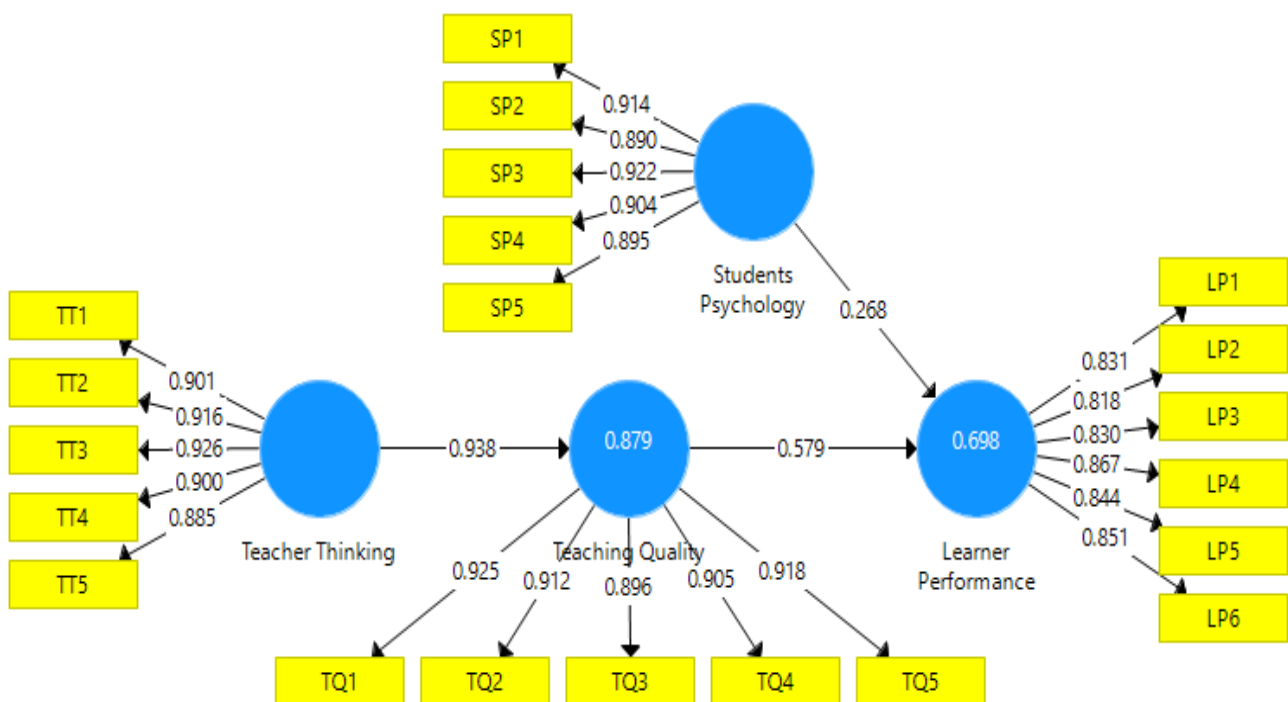


Figure 2. Measurement Model

Table 1

Convergent Validity

Variables	α	Items	Description	Factor Loadings	CR	AVE
Learner Performance	0.918	LP1	I was better than others in the class performance.	0.831	0.935	0.706
		LP2	I was able to learn interesting new skills in this class.	0.818		
		LP3	I was fully capable of using technology in this class.	0.830		
		LP4	I was able to ask critical questions.	0.867		
		LP5	I was able to think critically.	0.844		
		LP6	I felt free to express my ideas and opinions in the group work.	0.851		
Students Psychology	0.945	SP1	The degree to which the teacher provides leadership to the class and holds student attention.	0.914	0.958	0.819
		SP2	The degree to which the teacher is friendly and helpful towards students.	0.890		
		SP3	The degree to which the teacher shows understanding/concern/care for students.	0.922		
		SP4	The degree to which students are given opportunities to assume responsibility for their activities.	0.904		
		SP5	The degree to which the teacher is strict with and demanding of students.	0.895		
Teaching Quality	0.945	TQ1	By the way, I teach, I stimulate my students to discover new ways of functioning and principles or laws that can be applied in various situations.	0.925	0.958	0.821
		TQ2	By the way, I structure my teaching. I stimulate my students' creative abilities.	0.912		
		TQ3	In my teaching activity, I use games (word games, role-playing games, etc.) to make learning easier.	0.896		
		TQ4	In my teaching activity, I focus on my students gathering much information.	0.905		
		TQ5	I prefer a teaching style where I create situations for my students to reproduce/repeat the information accumulated in-class activity.	0.918		
Teacher Thinking	0.949	TT1	If students memorize rules and facts about grammar, it will help them to produce correct language in spontaneous situations.	0.901	0.961	0.83
		TT2	Students should be encouraged to speak/write accurately from the beginning.	0.916		
		TT3	Students must be consciously aware of a structure's form and function before they can use it proficiently.	0.926		
		TT4	When using language to communicate in English, it is more important to be grammatically accurate than socially appropriate.	0.90		
		TT5	Focusing students' attention on forms is a necessary but insufficient condition for acquiring grammar.	0.885		

PLS Algorithm calculations are used to examine the discriminant validity of this investigation. To assess the discriminant validity, the Heterotrait-Monotrait approach was utilized. Gold, Malhotra, and Segars (2001) suggested

that the discriminant validity values should not exceed 0.90. This investigation revealed that none of the values were larger than 0.90. (see Table 2). Therefore, the study's scale items have clear discriminant validity.

Table 2

Discriminant Validity

	Learner Performance	Students Psychology	Teacher Thinking	Teaching Quality
Learner Performance				
Students Psychology	0.842			
Teacher Thinking	0.885	0.851		
Teaching Quality	0.864	0.776	0.683	

4.1 The PLS-SEMs Results

The PLS Bootstrapping calculations were employed in this study to test the path coefficient for all hypotheses (see Table 3). According to the values of H1, teacher thinking has significant impact on teaching quality ($\beta = 0.938$, $t = 119.84$ and $p = 0.000$). Therefore, the first hypothesis is significant in this study. Secondly, according to the values of H2, teaching quality has significant impact on learner

performance ($\beta = 0.603$, $t = 5.521$ and $p = 0.000$). Thus, the first hypothesis is significant in this study. Finally, conferring on the values of H3, student psychology has a significant moderating impact between teaching quality and learner performance ($\beta = 0.136$, $t = 2.929$, and $p = 0.000$). Hence, the first hypothesis is significant in this study. As a result, all the study hypotheses are significant (see Figure 3).

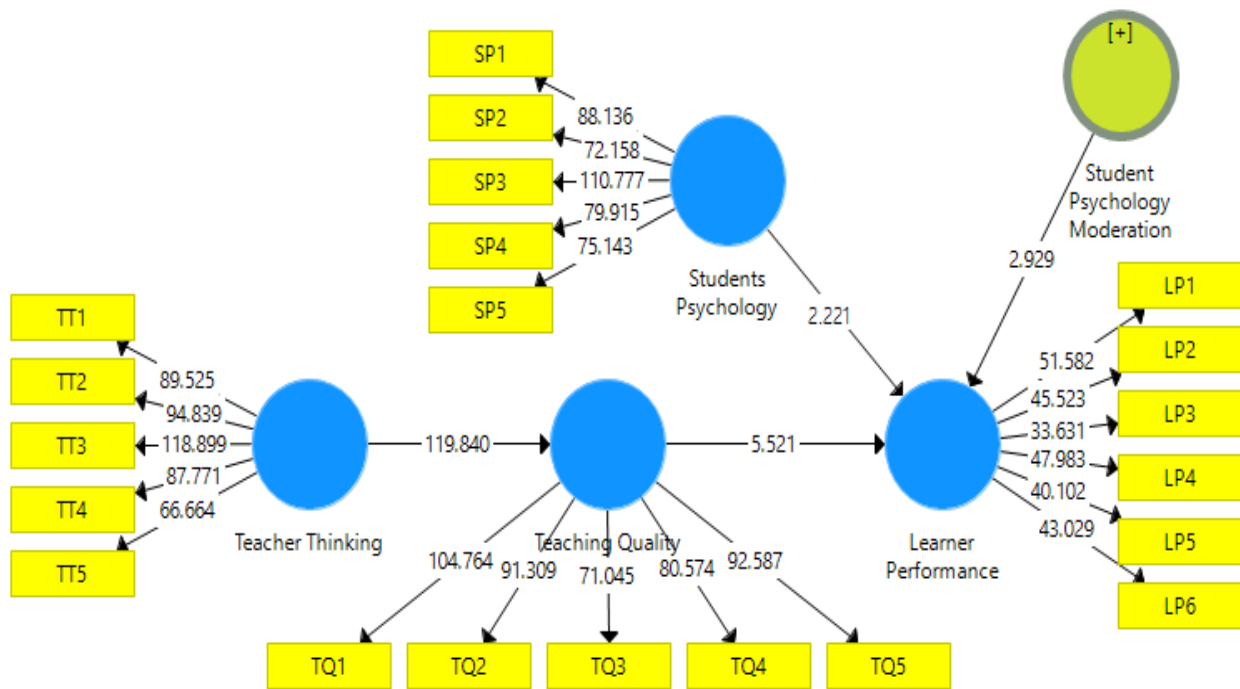


Figure 3. Structural Model

Table 3

Path Coefficient

No	Hypothesis	β	SD	t	p	Results
H1	Teacher Thinking -> Teaching Quality	0.938	0.008	119.84	0.000	Significant
H2	Teaching quality -> Learner Performance	0.603	0.109	5.521	0.000	Significant
H3	Student Psychology Moderation -> Learner Performance	0.136	0.046	2.929	0.004	Significant

4.2 Moderating Effect

As demonstrated by this study's findings, student psychology strongly moderates the relationship between teaching quality and learner performance. In addition, the data determined that student psychology improves the

beneficial association between teaching quality and student performance (see Figure 4). In this way, increased determination in student psychology would enhance the teaching quality for Indonesian higher education students, hence boosting learner performance.

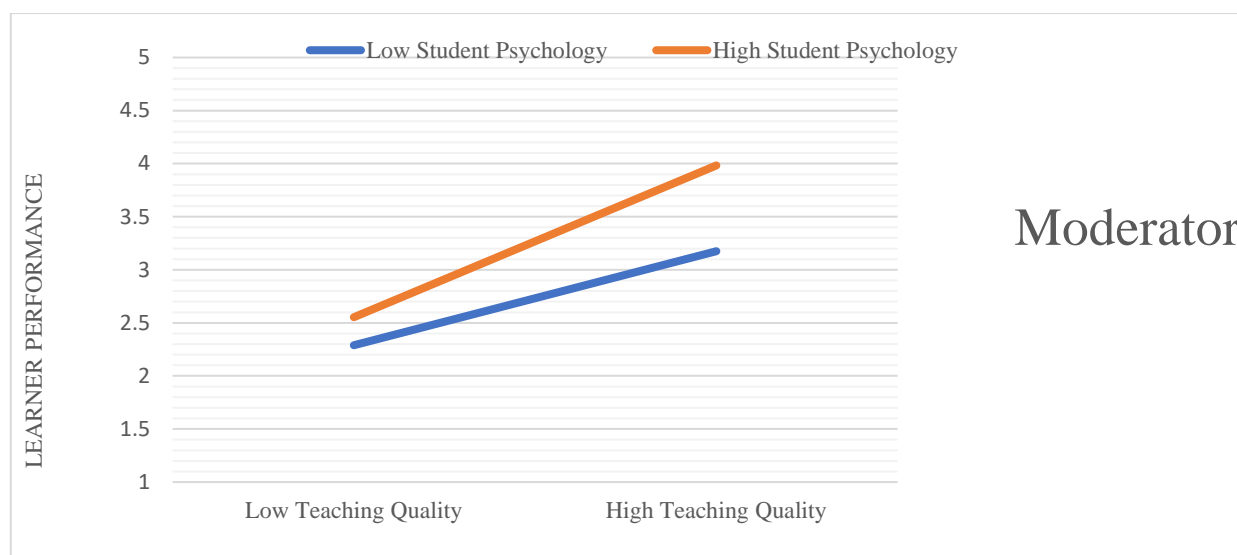


Figure 4. Student Psychology Moderation

5. Discussion and Conclusions

This study's objective was to investigate the efficacy of understanding student psychology in enhancing the quality of instruction for improved learner performance. This investigation is founded on three hypotheses. Significantly, the research results revealed that all hypotheses are supported. The study found that H1 is significant because teacher cognition considerably affects teaching quality. The outcomes of this hypothesis are consistent with (Basuki et al., 2018; Harun et al., 2020). This hypothesis was not discussed in the prior literature, but the outcomes of this study and past studies on the significance of teaching quality are comparable. Aditya et al. (2019) also concluded that the effectiveness of teacher capacities could improve teaching quality. In addition, Rokhyati (2013) stated that students' performance might be enhanced by adapting the teaching style to their learning styles.

Similarly, these findings are significant for enhancing the quality of education in Indonesia, particularly in the higher education sector. Susilana et al. (2020) also emphasized that teacher performance is essential for student performance to achieve success in real life. Therefore, appropriate consideration must be given to this relationship to improve the teaching and lecture techniques in Indonesia. Also, the study found that H2 is crucial because teaching quality considerably affects student performance. Thus, the results of this hypothesis align with those of Fadhil and Sabic-El-Rayess (2021). Based on the implications of learner performance, there is a similarity between the findings of the present study and those of previous studies. Arasid et al. (2018) also concluded that the teaching approach's success could

enhance pupils' performance. In addition, Martha et al. (2021) determined that the performance of Canadian students may be improved by incorporating an appealing curriculum rendering into the approach of researchers. In addition, these findings are significant for enhancing the quality of education in Indonesia, especially in the higher education sector.

On the other hand, Saleh and Mujahiddin (2020) stated that teachers' presentation is crucial to pupils' practical achievement. To improve the teaching and lecture techniques in Indonesia, this association must be evaluated thoroughly. The study concluded that H3 is crucial because student psychology strongly moderates teaching quality and learner performance. Consequently, this hypothesis yields identical results to Bustami and Corebima (2017) and Panis et al. (2020). Interestingly, the primary literature did not examine this theory. Still, there is a comparison between the findings of this study with past research on the importance of student psychology to schoolchildren's performance.

Similarly, Rokhyati (2013) stated that with an understanding of student psychology, the success of lecture styles might enhance the educational value. In addition, Susilana et al. (2020) noted that students' performance in Indonesian universities could be improved by endowing undergraduate and graduate learning with ornamental lecture elegance. In addition, these findings are significant for advancing the quality of education in Indonesia, particularly in the higher education sector. However, Harun et al. (2020) also asserted that lecture quality is crucial for the practical life skills of students. Therefore, appropriate consideration must be given to this relationship to improve the teaching and lecture techniques in Indonesia.

6. Implications

This study has contributed to the body of knowledge by introducing a novel link between variables. This study updated the existing literature on teaching quality by incorporating teacher cognition's significance into the teaching quality framework. This is a significant association that none of the previous studies explored. Therefore, this contribution to the teaching quality framework is crucial. The second contribution of this research was the introduction of the strong link between teaching quality and student performance. In the corpus of knowledge, previous studies did not examine this relationship.

Consequently, the study's findings justify this addition to the framework of learner performance. No prior research has examined the moderating effect of student psychology on the connection between teacher quality and student performance. Previous research ignored and overlooked this section of literature. The originality of this study is the considerable theoretical contribution of student psychology to the moderating relationship between teaching quality and learner performance. In this sense, this study has greatly contributed to the body of knowledge by introducing three new relationships that are crucial for future scholars to comprehend.

On the other hand, this study has significant practical implications for enhancing students' performance most effectively through teaching quality. This study has addressed the significance of teacher thinking for teacher quality that teachers of higher education departments in Indonesia must comprehend to provide the highest quality of instruction for the best learning experience for students. To ensure that all course material is acceptable and justifiable for the students, teachers should enhance their understanding of the course material and teaching methods. This study also revealed the association between teacher quality and student performance improvement. Therefore, teachers in Indonesia's department of higher education must realize that by enhancing their instruction, they can easily give students a quality education that would

facilitate their pursuit of higher education. The student's learning, which the students should adequately guide, can increase the efficiency of the quality of instruction. Therefore, based on this important association, teachers in Indonesia should reflect critically on their education and enhance their students' performance. This study has revealed the strong moderating effect of student psychology on the link between teaching quality and learner performance. Teachers in Indonesia must comprehend the psychology of their students to improve their academic achievement. In this way, both the theoretical and practical consequences of this study are notable for the body of knowledge and practice to boost the performance of students in higher education departments by improving the performance of teachers in education quality.

7. Limitations and Future Recommendations

The conceptual framework for determining the function of student psychology in the relationship between teaching quality and learner performance has been established by this research. This study's focus is confined to Indonesian institutions of higher education. Nevertheless, this study has certain drawbacks. Initially, this study examined the sole factor of teacher thinking for teaching quality; however, additional factors could improve teaching quality. Future research must therefore concentrate on the impact of job happiness in enhancing teaching quality. In addition, this study has addressed the effect of teaching quality on learner performance, but other factors could also improve learner performance. This indicates that future research must concentrate on the importance of instructional methodology in enhancing student performance. This study concludes by discussing the moderating effect of student psychology on the association between teaching quality and student performance. Therefore, future studies could concentrate on the moderating influence of education equity in enhancing student performance.

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