

## Teaching Style And Student Burnout: The Role Of Student Engagement

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### Abstract.

*The concept of engagement is widely studied as a necessary positive behavior in the workplace. For this reason, this study aims to examine the engagement and burnout model in higher education by selecting students as study subjects. The determinants taken in this study were the lecturers' teaching style and the student's achievement motivation. A total of 336 private higher education students in Student City, Indonesia, were used as study subjects. Model testing was done through path analysis. The antecedents of student engagement studied were teaching styles and student achievement motivation. The study results concluded that the teaching style could increase student engagement directly and indirectly through achievement motivation. This finding provides insight into the student engagement and burnout model, built through the lecturers' teaching style and students' achievement motivation. In addition, this study implies the significance of higher education attention in improving teaching methods to encourage student motivation and engagement so that learning outcomes are as expected. The two most important limitations, discussed in more detail at the end of the paper, comprised the study's cross-sectional nature and reliance on self-reported questionnaire data. This study implies the importance of higher education paying attention to efforts to increase student engagement and reduce burnout through the achievement motivation and teaching style determinants.*

**Keywords :** Student Burnout; Student Engagement; Achievement Motivation and Teaching Style.

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### I. INTRODUCTION

The organizational behavior theory is growing in line with the phenomena in organizational practice. Several behavioral constructs, therefore, are applied to the learning and academic environments, such as the constructs of student burnout and student engagement. It is interesting to the authors' attention since student engagement and student burnout are early symptoms of effective learning management, impacting learning performance (Mayo, 2016) and higher education performance. The theory of engagement and burnout was first expressed by Bakker et al., 2015; Brown et al., 2014; Maslach et al., 2001; Maslach & Florian, 1988. In the higher education environment, many aspects affecting student engagement and student burnout, among others, are the lecturers' teaching style. Lecturers here have a role in transferring values and learning content. Then, the right teaching style will encourage the achievement of the expected learning Charkins et al., (1985). Kuntsche et al. (2006) and Miller, (2017) concluded the relationship between teaching style and student engagement and student burnout. In addition, referring to Positive Organizational Behavior (POB), motivation has an essential role in predicting results. David McClelland (Robbins & Judge, 2016) revealed that every individual has three reasons for carrying out activities: the need for affiliation, connection, and achievement. For students, their achievement motivation will be able to improve moods, such as happiness, and will further encourage student attachment to the courses being followed and reduce job fatigue.

Several studies have proven that student achievement motivation can encourage student wellbeing, thereby reducing negative effects, such as burnout faced by students (Baeten et al., 2010; Kuittinen & Meriläinen, 2011; Ling et al., 2014). Research by Tas, 2016; Xiong et al., 2015 also found the effect of motivation on student engagement and burnout. Moreover, students with a positive attitude towards the lecturer's teaching methods will create a high sense of enthusiasm for attending lectures and liking the learning materials presented. In the organizational context, enthusiasm in carrying out tasks is included in the engagement dimension. It signifies that the better the teaching style delivered by the lecturer, the higher the student engagement. A study conducted by Miller, (2017) has uncovered that research-based learning and apprenticeship models could encourage student engagement. Research studies on student engagement are currently increasing as a form of attention to efforts to improve academic performance at the educational level (Fredricks et al., 2004). As concluded An et al., (2008), high student engagement could encourage

academic performance. However, several studies on engagement and burnout confirm the results from different perspectives. Bakker, 2011; Bakker et al., 2008; Bakker & Demerouti, 2008; Bakker & Schaufeli, 2008 explained the conception of burnout as an antipodal of engagement. Meanwhile, Fiorilli et al., 2017 concluded that burnout is a negative antecedent to student engagement.

In addition, research conducted by Brown et al., 2014 measured the role of student engagement with an experimental approach. In their study, it was concluded that there was weak evidence of the important role of student engagement in improving academic performance, except for conscientiousness. The debate about the same results also occurs in the relationship between motivation and student burnout. Chang et al., 2016; Sulea et al., 2015; Tawale et al., 2011 elucidated the role of motivation in reducing the occurrence of student burnout. However, research Ghanizadeh & Jahedizadeh, 2017 denoted the opposite that emotional exhaustion is the antecedent of intrinsic motivation. In Indonesia, several empirical studies have paid more attention to burnout context and were generally conducted on students from the exact faculty, particularly medicine and nursing. Students majoring in exact sciences have a relatively high content of practical learning material, with solid practical lecture hours. The study conducted by Alimah et al., 2016 used a sample of 156 student respondents in the nursing department. The results of their descriptive study have proven the burnout level in the moderate category. The results also showed no significant difference in the perceived burnout level between students in the two different batches. For this reason, this study examines the student burnout and engagement models through teaching style and achievement motivation as determinants. In more depth, this study also investigates the role of student achievement motivation and engagement as mediating the relationship between teaching style and burnout.

## II. LITERATURE REVIEW

This study applied Social Cognitive Theory, which explains the importance of reciprocal psychosocial functions and includes behavior, cognitive, personal, and environmental factors influencing each other. This approach is relevant to underlie the framework of thinking about the relationship between the concepts of teaching style, student achievement motivation, burnout, and engagement. The lecturer's teaching style will encourage achievement motivation and, in turn, encourage student engagement. Conversely, a condition can occur when a student assesses the not good teaching style, where it will cause work fatigue, or what is often known as burnout. In the context of Social Cognitive Theory, personal factors, such as achievement motivation, have a vital role.

### *Student Burnout*

The burnout concept is often studied in the context of work-life. (Maslach et al., 2001) revealed that burnout is a psychological syndrome consisting of three dimensions: emotional exhaustion, depersonalization, and decreased personal achievement, as well as low self-esteem in carrying out daily tasks. The first dimension is emotional exhaustion. This condition occurs when individuals feel emotional exhaustion, which triggers the drain and reduced emotional resources. Conditions that arise include feelings of frustration, sadness, hopelessness, depression, irritability, feeling burdened with the task at hand, and irritability for no apparent reason, causing a person to feel unable to provide psychological services. The second dimension is depersonalization, which is when individuals have negative attitudes or perceptions towards service recipients.

This condition is related to a negative attitude, rude attitude, tends to keep a distance from other people, or withdraws from the social environment and tends not to care about the environment and individuals in that environment. Other attitudes shown are reduced idealism, reduced contact with clients, relating only as necessary, having negative and cynical opinions about others, and having difficulty helping others (Schaufeli, 2017). The third dimension, reduced personal accomplishment, is related to decreased self-competence, work motivation, and work productivity, which is caused by feelings of guilt resulting from not achieving work goals, having a low attitude to give self-esteem, and feeling a lack of self-confidence (Maslach et al., 2001). The real attitudes seen include lack of attention to others, being unfriendly, and not having a sense of empathy with others. Individuals who experience decreased personal achievement also feel useless, and their activities feel worthless or valuable.

### ***Student Engagement***

Student engagement describes the degree to which students are actively involved in learning activities (Wellborn, 1991) as cited by (Reeve, 2012). This definition emphasizes the "learning activities" that students participate in. Several previous studies have also explained that employee engagement could encourage increased individual performance (Bakker et al., 2004; Kahn, 1990; Lei et al., 2018) and increased organizational performance (Bakker et al., 2015; Bakker & Bal, 2010). In addition, (Kahn, 1990) revealed engagement as an antipodal burnout that has received much attention from researchers, with three dimensions: emotional exhaustion syndrome (emotional depletion caused by demands for interpersonal contact with other people), depersonalization (negative, callous, and cynical attitudes toward one's service), and a lack of personal respect (the tendency to evaluate one's job negatively). (Kahn, 1990) also asserted that engagement is multidimensional, including emotional, cognitive, and physical dimensions. For this reason, this study takes the engagement concept with the campus learning context so that the intended engagement is student engagement. In the learning context, student engagement is characterized by conditions that include vigor, dedication, and absorption. These three aspects are needed in the learning process (Schaufeli, Salanova, et al., 2002).

Vigor is described by the high level of energy and mental resilience that students have in attending lectures, the willingness of students to contribute their efforts to work, and the persistence of students in facing difficulties. Dedication is illustrated by feelings of "importance", enthusiasm, inspiration, pride, and challenge. Meanwhile, absorption is an engagement characteristic characterized by a condition in which a person can concentrate fully and feels happy and engrossed in attending lectures, feels time passes quickly, and even finds it difficult to separate the mind from the learning process. Thus, students who have engagement will be more creative, productive, and willing to study harder, thus encouraging optimal performance. Moreover, engagement is a good predictor of academic performance because students with high engagement will invest effort and energy, dedicate themselves to their studies, and often feel immersed in their learning activities (Bakker et al., 2015). Students who have high engagement also have persistence and focus on learning activities passed with a clear goal orientation, providing a higher probability of studying well. Thus, this study used (Schaufeli, Salanova, et al., 2002) approach to measure student engagement, including vigor, dedication, and absorption.

### ***Achievement Motivation***

Using the perspective of Social Cognitive Theory, it can be explained that the learning environment and individual factors can influence student attitudes and behavior. On the other hand, McClelland's Motivation Theory describes three motives that can encourage individuals to carry out activities: achievement, affiliation, and growth or self-development motives. The high awareness of learning reflected by the emergence of students' encouragement to attend lectures will increase their attachment to the learning process. In terms of behavior, attachment to work, learning, and organization is often discussed in the engagement construct. Previous studies on employee engagement have been associated with several forming factors or antecedents, such as aspects of work and the environment, and have proven that employee engagement could encourage increased individual performance Bakker (2011); Schaufeli, Pinto, et al., (2002). However, the opposite condition can occur. Students who face several individual problems will cause low enthusiasm for learning, resulting in low readiness to receive learning materials and assignments imposed by students. This condition can accelerate the emergence of fatigue felt by students as antipodal to student engagement. Kuittinen & Meriläinen (2011) have studied the factors causing student burnout, comprising the learning environment and achievement motivation. Using a sample of 3031 Finnish students, the results verified that students' personal motivation to participate in learning positively influenced students' wellbeing. The results also revealed differences in achievement motivation and burnout between economics students and general students. In addition, Chang et al. (2016) have studied 345 students at Seoul University. Their study proved that the higher the motivation of students, the lower the burnout experienced.

### ***Teaching Style and Student Achievement Motivation***

In the teaching and learning process, lecturers can use strategies, methods, or styles oriented towards increasing motivation and the effectiveness of achieving learning outcomes. Lecturers in the learning process

are like leaders who have a role in moving students' motivation and behavior. In this case, several leadership approaches can be used effectively. Bass & Avolio, (1990) developed the transformational leadership concept, including dimensions of idealized influence, individual attention, intellectual stimulation, and inspirational motivation. The four dimensions of transformational leadership can be applied as a lecturer's teaching style. In the learning context, the lecturer's teaching style describes the approach used by the lecturer in transferring knowledge and student cognition aspects. The teaching style basically describes the methods and approaches used by each lecturer in delivering learning materials to students. The right teaching style of lecturers will give a positive response to the student's understanding level and encourage high achievement motivation. Differences in teaching styles can also give different responses differently. Students' perceptions of the lecturers' teaching style could encourage learning outcomes (Ibadi et al., 2009). The research is in line with (Maheswari, 2013), who concluded that students responded in the form of different satisfaction due to different teaching styles.

(Sari & Reni, 2018) also denoted that the lecturers' teaching style could encourage the student's understanding level of the lecture material. Furthermore, the teaching method described as the lecturer's teaching style has a strategic role in transferring the curriculum through the classroom learning process. Through lecturers, a higher education curriculum is delivered to encourage effective implementation. Previously, (Charkins et al., 1985) conducted a study that examined the effect of teaching style on attitudes and learning achievement. Data were obtained from 600 economics students at Purdue University in the United States. The results showed that the teaching style could encourage students' attitudes and learning achievement. The importance of the role of lecturers as agents of change in determining the success of study programs is also proven by (Reeve et al., 1999) research, which conducted a study on 550 lecturers in Africa and America. The results confirmed differences in student motivation associated with differences in the supportive teaching methods used. The results also showed that the differences in supportive teaching methods impacted the differences in students' learning motivation. Another study, conducted by (Czernkowski et al., 2003), in 877 accounting and management students, uncovered the research results that transformational leadership style could encourage student learning outcomes. On the other hand, the transactional leadership style in teaching reduced learning outcomes. In addition, (An et al., 2008) researched the effect of learning quality on academic outcomes and student engagement.

The type of research conducted was a longitudinal study, setting a sample of 20 out of 2000 students in China. Their research results revealed that the lecturers' teaching quality positively impacted learning outcomes and student engagement. Meanwhile, (Pachler et al., 2019) conducted a study on aspects that could encourage student engagement, creativity, and performance. The results proved that transformational learning carried out by lecturers could encourage student creativity. Transformational learning could also directly increase student confidence in lecturers and indirectly increase engagement. In Indonesia, several researchers have conducted research on the influence of teaching styles on learning outcomes. A study by (Sari & Reni, 2018), using a sample of 89 students from the Faculty of Economics, Muhammadiyah University of West Sumatra, concluded that teaching styles could encourage student learning outcomes. In addition, (Magfirah, 2020) conducted a study that linked blended learning as a teaching strategy for lecturers with student learning motivation. By using a sample of students majoring in English Education at Khairun University, the results concluded that blended learning was effectively used to stimulate student learning motivation in the early semester. Based on the conceptual framework and empirical results above, the first hypothesis of the study is as follows:

**H1: The lecturer's teaching style increases student achievement motivation.**

#### **Teaching Style and Student Engagement**

(Bellibas & Liu, 2017) developed a conceptual model that explains the importance of instructional leadership in learning in improving teacher self-efficacy and student learning. The teacher self-efficacy here describes the confidence in managing the class, the confidence in providing learning instructions, and the confidence in building student engagement. The right approach in the teaching and learning process in the classroom will encourage students' positive perceptions in attending lectures, reflected by the emergence of enthusiasm and totality in attending classes. The dimensions of enthusiasm, liking, and totality in behavior

are measured in the engagement construct. High student engagement in the learning process will impact learning outcomes. Vice versa, teaching styles that are less attractive to students will reduce engagement, and as antipodal, it will lead to burnout. (Miller, 2017) conducted a study on aspects encouraging student engagement in learning in the classroom and outside the classroom. The sample was taken from psychology students at the University of Nebraska Kearney in the United States. The results showed the importance of creating a class structure by creating class discussions, getting to know students, and maintaining small classes.

In his study, (Miller, 2017) also concluded the importance of lecturer support in the form of being responsive to student questions, encouraging students to become assistants, and providing assistance in supporting effective learning. In another study, (Miller, 2017) also found that research-based learning and internships encourage higher engagement than service-learning and community learning. It is possible because research and internships demand academic effort, active participation, collaborative learning, relevance, student interaction, and a stronger intrinsic drive. Students are also required to work harder in conducting research and internships than taking part in classroom learning. Meanwhile, (Kuntsche et al., 2006) concluded the importance of the lecturers' teaching style in determining the effectiveness and learning outcomes. In other words, differences in teaching styles can give different responses. Teaching styles that use the right approach, such as transformational and supportive, will encourage student learning outcomes. Conversely, teaching styles that tend to use pressure on students will have a negative impact on behavior, such as burnout or fatigue in following the learning process. The importance of applying a teaching approach was also concluded by (Bellibas & Liu, 2017) in their study that instructional leadership in learning would encourage teacher self-efficacy in creating student engagement.

Based on the description above, the research hypothesis is formulated as follows:

## **H2: The lecturer's teaching style will encourage student engagement.**

### **Achievement Motivation and Student Engagement**

(Xiong et al., 2015) tested the effect of self-efficacy, intrinsic and extrinsic motivation, engagement, and retention. Using a sample of 17,359 students at Pennsylvania State University MOOC, the results concluded that intrinsic and extrinsic motivation increased engagement. (Tas, 2016), in a study using 315 students in Turkey, found the role of the learning environment and motivation as predictors of student engagement. The results are also supported by (Zhou et al., 2019), who used 614 students in China in their study. The study results prove that student motivation could encourage student engagement. The results also verify that support from parents, teachers, and schoolmates plays a role in increasing the need for student satisfaction. The study then concluded the importance of motivational encouragement as a predictor of student engagement in improving learning achievement. In Indonesia, (Arum, 2014) conducted an experimental study with a sample of students majoring in cosmetology at the State University of Jakarta. The results showed significant differences in student engagement between students with high achievement motivation and students with low achievement motivation. The study results also exposed the relationship between achievement motivation and student engagement.

Based on the description above, the hypothesis formulated is:

## **H3: Achievement motivation significantly increases student engagement.**

### **Teaching Style and Student Burnout**

(Rahmawati et al., 2017) conducted a study of 139 students from the Faculty of Teacher Training and Education, Sultan Ageng Tirtayasa University. The study results revealed that a sense of humor has a role in reducing student burnout. This study notes the importance of providing humor stimulation to reduce student burnout. A study conducted by (Kalantari & Kolahi, 2017) examined the effect of reflective learning by novice teachers on perceived burnout. Using a sample of 158 English teachers in Tehran, the results concluded that reflective learning reduced the student perceived burnout. The study implies the importance of proper learning design to reduce the possibility of burnout in the teaching and learning process implemented.



Based on the description above, the hypothesis proposed is:

**H4: The lecturer's teaching style reduces student burnout.**

**Achievement Motivation and Student Burnout**

(Sulea et al., 2015) conducted a study of the relationship between work engagement, boredom, burnout, personality, and motivation. The sample used 255 students majoring in economics and social affairs in Romania. The study results concluded the motivational role of the need dimension to gain autonomy, competence, and relatedness to burnout reduction by paying attention to personality as a control variable. (Chang et al., 2016) researched a sample of 345 students in Seoul. The study results concluded that intrinsic motivation, identification motivation, and external motivation could reduce the emergence of student burnout. The motivation was also a mediating variable between student perfectionism and perceived burnout level. Another research in Indonesia was conducted by (Tawale et al., 2011) using a sample of nurses at the Serui-Papua Hospital. Their results showed that the motivation of nurses could reduce the perceived high burnout. The higher the motivation, the lower the perceived burnout.

Based on the description above, the hypothesis stated is:

**H5: High achievement motivation will reduce student burnout.**

**Student Engagement and Student Burnout**

Rigg et al., (2013) studied a sample of students in America to examine the relationship between self-efficacy, student engagement, and emotional exhaustion, which are the main dimensions of burnout. The study results denoted that high student engagement could reduce emotional exhaustion. Then, another research was conducted by (Zucoloto et al., 2016) with a sample of 363 pharmacy students at UNESP showed that high student engagement would reduce student burnout levels. Also, (Upadyaya et al., 2016) research with 1415 health workers in Finland concluded that high work engagement reduced burnout and depressive symptoms felt by employees and increased satisfaction. Perceived depressive symptoms were negatively related to work engagement and satisfaction and positively related to burnout. The same thing was proven by Singh et al., (2020) using 264 management students in India, showing that student engagement could reduce perceived burnout.

Based on the description above, the hypothesis is:

**H6: High student engagement will reduce student burnout levels.**

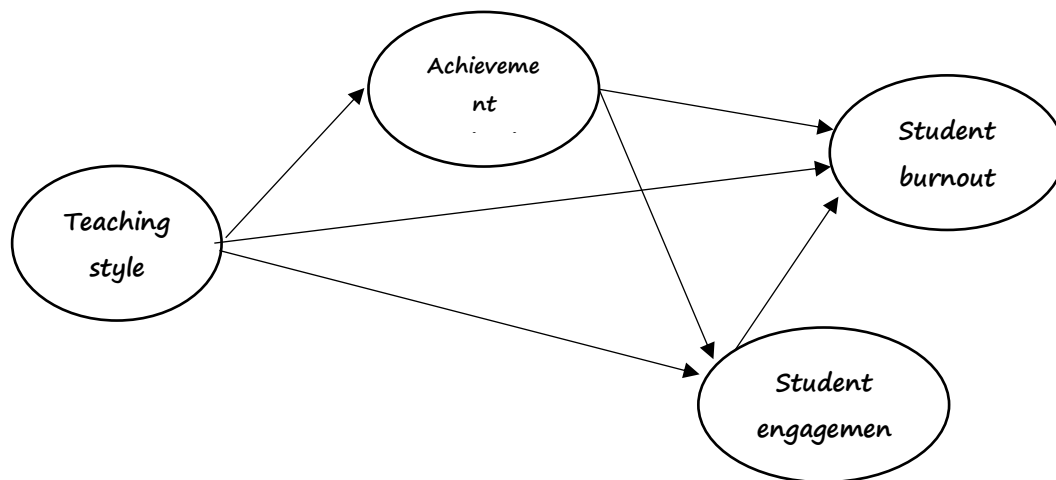
**Testing Mediation**

In many behavioral studies, motivation is often positioned as a variable mediating the relationship between variables. In this research's context, achievement motivation is considered capable of acting as a mediation between teaching styles and student engagement. In their study, Zhou et al., 2019, the learning climate plays a role in increasing student engagement through need satisfaction and motivation. Student engagement is a positive behavioral construct, according to Bakker et al., (2015), representing student wellbeing in learning. In many previous empirical studies, student engagement has been studied as an intermediate or mediating variable of the relationship between students' internal aspects or organizational treatment on academic results. As in the study conducted Bakker et al. (2015), student engagement plays a mediating role in explaining the influence of students' individual aspects on academic performance. The role of motivation as mediation is also proven by Chang et al. (2016), who used a sample of 345 undergraduate students in Korea. The results concluded that motivation is a mediator between individual characteristics of perfectionism and student burnout.

**H7a: Achievement motivation mediates the effect of teaching style on student engagement.**

**H7b: Student engagement mediates the effect of teaching style on student burnout.**

The research model can be presented as follows based on the description above.



**Fig 1. Research Model**

### III. METHODS

#### *Research Method*

This study used a quantitative approach, examining the effect of the independent/exogenous variables on the dependent/endogenous variables. In this study, the exogenous variable of the lecturer's teaching style was used. Meanwhile, the independent variables used were student achievement motivation, student engagement, and student burnout. This study also investigated the role of achievement motivation and student engagement as mediating variables. The research object was Universitas Muhammadiyah Yogyakarta, with the subject of students at Universitas Muhammadiyah Yogyakarta. Meanwhile, the sample was taken using a purposive sampling method, with the criteria that students were active in the 2019/2020 academic year and had at least entered the first year. First-year students are still in the adaptation stage due to changes in the senior high school level to higher education with a different character and task demands, so they are vulnerable to burnout in participating in learning. This study determined the quota sampling method with a minimum target of 300 students. The research variable used was the lecturer's teaching style, measured using a transformational leadership approach, student achievement motivation, student burnout, and student engagement. Lecturer's teaching style was measured by the approach of transformational leadership theory Bass & Avolio, 1990, covering idealized influence, inspirational motivation, intellectual stimulation, and individual attention.

The questionnaire referred to (Beauchamp et al., 2010), according to the four dimensions presented Bass & Riggio, 2006. Meanwhile, student achievement motivation describes individuals' drive to achieve goals optimally, as measured by the instrument used by Kuittinen & Meriläinen (2011), consisting of eight questions. Furthermore, student engagement was assessed using the Utrecht Work Engagement Scale (UWES-S) instrument adopted from Schaufeli, Pinto, et al., 2002, comprising nine-question items. The UWES-S validity has been tested and used by several previous researchers to measure student engagement, such as that used by Maricuțoiu & Sulea (2019). The instrument testing results with the validity test showed that all question items on the student burnout variable (ten question items) were at a significance level of 0% ( $p < 5\%$ ), with an R-value ranging from 0.496 to 0.762. Likewise, the validity testing results of the student engagement variable (15 question items) had a significance value of 0% ( $p < 5\%$ ), with an R-value ranging from 0.145 to 0.727. The motivation variable had a significance number of 0% ( $p < 5\%$ ), with an R-value ranging from 0.570 to 0.807. The lecturer's teaching style variable had a significance number of 0% ( $p < 5\%$ ), with an R-value ranging from 0.570 to 0.802. Based on these results, it is concluded that all the question items in this study were valid. The variable reliability test results of student burnout, student engagement, student achievement motivation, and teaching style, respectively, were above 0.6, namely 0.844; 0.889; 0.859; 0.920. These results indicate that all the instruments used met the reliability criteria. Based on the validity and reliability test results, it is concluded that the research instrument was valid and could be used.

#### IV. RESULTS AND DISCUSSION

##### *Descriptive Statistics*

The description of the student engagement level was quite good, as indicated by the mean value of 3.36 (scale 1 to 5), or in the relatively good category. Several conditions that described good engagement included "students always do assignments according to the provisions of the lecturer", "actively carry out discussions in group assignments", and "find solutions every time they face problems in learning. Meanwhile, the student achievement motivation was in the high category. It was indicated by the mean value of 3.71 (scale 1 to 5). Statements about the reasons for "to get a stable job", "the need to be active in college and active in student activities", and "what is obtained in the college process will support job acquisition" described the strongest high achievement motivation compared to other statements. Looking at the data, it can be revealed that, basically, students have already had awareness as the reason to be active in the lecture process. Furthermore, the student's assessment of the lecturer's teaching style showed a good assessment, with a mean value of 3.54. It was shown by several opinions, such as "lecturers provide opportunities for students to be active in class", "encourage student involvement in class", and "show warmth and friendliness in learning," having high scores compared to other values. Overall, these results illustrate that the teaching style applied by the lecturers was well received by the students.

##### *Hypothesis Testing Results*

##### **Direct Effects Between Variables**

This study has several direct hypotheses discussed in the initial stages as follows:

##### **a. First Stage Regression Analysis (Path-1)**

The first stage of analysis used simple linear regression to examine the effect of teaching style on achievement motivation. Based on the results, it is concluded that the teaching style used by lecturers in learning could encourage student achievement motivation. It is indicated by the standardized coefficient value of 0.460 (0.000) and the t-value of 9.474. Positive numbers illustrate that the influence of teaching style on achievement motivation had a positive relationship direction. The better the lecturer's teaching style perceived by the students, the more achievement motivation will be. The probability value was 0.000 below 5%, so **the first hypothesis was supported.**

##### **b. Second Stage Regression Analysis (Path-2)**

The second stage of path analysis was carried out using multiple regression analysis to examine the effect of teaching style and student achievement motivation on student engagement. Based on the results, it is concluded that the teaching style used by lecturers in learning could encourage student engagement. It is indicated by the standardized coefficient value of 0.484 (0.000) and the t-value of 10.987. The positive coefficient figure depicts that the influence of teaching style on student engagement had a unidirectional relationship. The better the lecturer's teaching style perceived by the students, the more it will encourage student engagement, with a probability value below 5%. **Thus, the second hypothesis is supported.** The effect of achievement motivation on student engagement was shown by the standardized coefficient value of 0.331 (0.000) and the t-value of 7.524. The positive coefficient number explains the direct relationship between achievement motivation and student engagement. It means that the higher the achievement motivation of students in lectures, the more engagement that describes student engagement in the lecture process. The probability value was below 5%, so **the third hypothesis is supported.**

##### **Third Stage Regression Analysis (Path-3)**

The third stage regression analysis (Path-3) was conducted to examine the determinants of the effect of the predictor variables for student burnout, namely the lecturers' teaching style, student motivation, and student engagement. The analysis results showed that teaching style, student motivation, and student engagement were not proven to affect student burnout, indicated by the standardized coefficient value and significance level of -0.089 (0.204) for the influence of teaching style, -0.047 (0.471) for student achievement motivation, and -0.138 (0.69) for student engagement. **Thus, the fourth, fifth, and sixth hypotheses were not supported.**

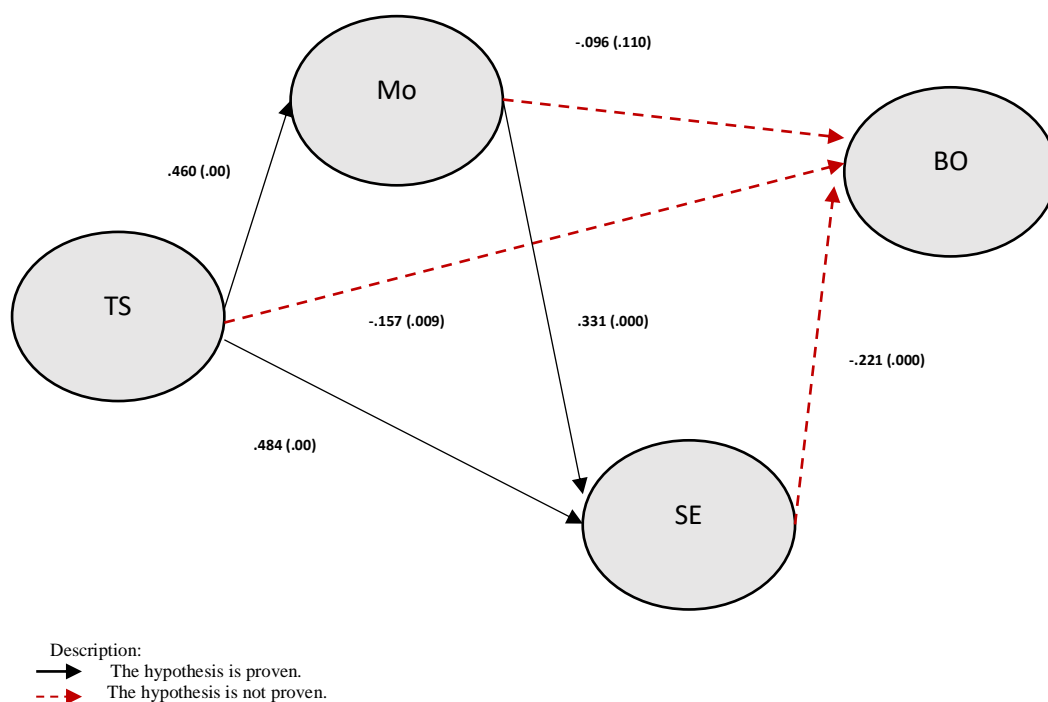


Based on the analysis results, the full regression model can be presented.

**Table 1.** Summary Results of Direct Effects Between Variables

Independent Variables		Dependent Variables	Standardized Coefficients	t	se	Sign
Teaching style (TS)	→	Achievement motivation (Mo)	.460	9.474	.041	.00
Teaching style (TS)	→	Student engagement (SE)	.484	10.987	.052	.00
Achievement motivation (Mo)	→	Student engagement (SE)	.331	7.524	.062	.00
Teaching style (TS)	→	Burnout (BO)	-.089	-1.272	.064	.204
Achievement motivation (Mo)	→	Burnout (BO)	-.047	-.722	.074	.471
Student engagement (SE)	→	Burnout (BO)	-.138	-1.825	.058	.069

The full model of the research results is presented in the following figure.



**Fig 2.** Full research model

#### Indirect Effect: The Role of Achievement Motivation in Mediating the Effect of Teaching Style on Student Engagement

To test hypotheses 7.a and 7.b about the role of mediating variables, this study used Sobel's calculations (Ghozali, 2017). Hypothesis 7.a examines the role of the student achievement motivation variable as a mediating variable for the effect of teaching style on student engagement. Using the Sobel calculation, the role of the mediating variable can be seen through the Sobel value with the cut-off level of acceptance at  $> 1.96$  and a significance value of  $< 0.05$ . The calculation results found that the Sobel value was 4.820 ( $> 1.96$ ), and the sign was 0.00 ( $< 0.05$ ), with a se of 0.031. Thus, **hypothesis 7.a was supported.**

#### Indirect Effect: The Role of Student Engagement in Mediating the Effect of Teaching Style on Student Burnout

Testing hypothesis 7.b was conducted to examine the role of student engagement in mediating the effect of teaching style on burnout. However, testing the direct effect of teaching style on burnout and student engagement on burnout showed an insignificant effect. **Thus, H7.b could not be tested.**

A summary of the mediation hypothesis testing is presented in Table 6.

**Table 2.** Sobel Calculation Results

Variable	Sobel	Se	Sign.
H7a: Teaching style → Student achievement motivation → Student engagement	4.820	0.031	0.000
H7.b: Teaching style → Student engagement → Burnout	NA	NA	NA

### Discussion

This study examines student engagement and burnout models in the context of college student studies, with variable predictors of teaching style and achievement motivation. The data showed that the burnout level perceived by students was in a low category, with a value of 2.42 (scale 1 to 5). Students revealed that the lecture load tended not to cause problems in relationships with other people; they could complete lecture assignments and did not agree with the statement "less motivated to attend lectures and often think about giving up." The results of this study are quite interesting and a crucial note since this condition indicates that the learning taken by students was responded to positively. Basically, burnout describes a situation that is not supportive and not expected in the teaching and learning process. If the burnout condition is high, it will impact negative behaviors, such as absenteeism from lectures and deviant behaviors, such as not doing assignments and others. If related to the respondent's profile based on the semester taken, it showed a good condition. Most respondents (87%) were in the third semester, where they had successfully passed the first year as a year of adaptation or change in the learning environment from senior high school to higher education. Low burnout indicates high adaptability, thus supporting the smoothness of the study. Students also expressed high expectations of success, did not lose interest in learning, and believed that coursework was part of success. Judging from the mean value for student engagement of 3.36 (scale 1 to 5), it indicates that student engagement was in a relatively high category.

Students showed positive behavior, such as doing assignments according to the requirements of the class lecturer, actively asking questions, actively participating and discussing group assignments, and trying to find solutions when having problems doing assignments. Some of these important indicators illustrate the high student engagement level in the lecture process. Student engagement representing positive behavior will encourage high learning performance. Furthermore, the mean value of the work motivation variable was at 3.71 (scale 1 to 5) or in the good category. This figure illustrates the students' high motivation level. Achievement motivation describes the drive that arises in students to achieve. In this study, students had a strong drive, reflected in several answers, including "the desire to get a steady job," "believes in the importance of balancing college and student activities for self-development," and "believes that the college process is a way to get a better job." In addition, the description of the student's assessment of the lecturer's teaching style was concluded to be "good," with a mean value of 3.54 (scale 1 to 5). Students gave good assessments of lecturers' teaching methods, such as "providing students to be active in class", "encouraging student involvement", "explaining lecture material well", and "showing a warm and friendly attitude in learning". Students also considered that the lecturer created comfortable interpersonal relationships and built fairness in the classroom. Conditions like this encourage the learning's effectiveness. The regression analysis results concluded that the lecturer's teaching style significantly increased student achievement motivation. It was indicated by the standardized coefficient value of 0.46 in a positive direction.

The better the student's assessment of the lecturer's teaching style, the higher the student's achievement motivation. This result was supported by a significance value of 0% (5%). On the other hand, one of the supporting factors for success in implementing the higher education curriculum (KPT) is the role of lecturers in developing appropriate learning methods. Each course has a learning outcome (LO), which includes soft and hard skills. The achievement of the LO determined will depend on several things, including the learning climate, support for class facilities, and the role of lecturers as the role of science transformation. Lecturers, therefore, need to use the right approach to create an appropriate learning climate and inspire good behavior and teamwork. If this condition runs, achievement motivation will increase. The results of this study support (Charkins et al., 1985) findings, which concluded that teaching style could encourage students' attitudes and learning achievement. These results are also in line with the study conclusions of (Reeve et al.,

1999) that there were differences in student motivation due to differences in the supportive teaching methods used. The same results were also previously proven by (Magfirah, 2020; Pachler et al., 2019). In addition, the results of this study conclude the effect of teaching style on student engagement. Students who judged that the lecturer's teaching style was in line with expectations would be encouraged to have a positive attitude, including high attachment to the course, reflected by their enthusiasm, persistence, enthusiasm, feeling proud and important in attending lectures, concentrating, and enjoying the lectures they attended.

Students with high engagement also had persistence and focus on learning activities passed with a clear goal orientation, thus providing a higher possibility for students to study well. This study is in line with the findings of (Kuntsche et al., 2006; Miller, 2017) about the effect of teaching style on student engagement. The effect of achievement motivation on student engagement in this study could be proven significantly, which means that the higher the achievement motivation of students, the more it will encourage student engagement. The results of this study also reinforce the findings of (Tas, 2016) and (Zhou et al., 2019). However, this study could not answer the research hypothesis about the direct influence of the predictor variables of teaching style, achievement motivation, and student engagement on the decrease in student burnout. The study results showed that the standardized coefficient was negative, meaning that the direction of the relationship between each predictor variable of teaching style, motivation, and student engagement on burnout was negative. Besides, the direction of this relationship was not supported by the significance level, which was  $>5\%$  for the three predictor variables.

If seen from the data description based on descriptive statistics, the burnout perceived by students was classified as a low category. The low burnout level indicates that students did not experience fatigue in attending lectures. The low student burnout is likely to contribute to the insignificance of the predictor variables tested. This finding also proves that burnout has nothing to do with the teaching style, motivation, and perceived student engagement. However, this finding is inconsistent with the results of some previous studies, such as (Chang et al., 2016; Sulea et al., 2015; Tawale et al., 2011), which found a significant effect of achievement motivation on burnout. Also, it does not align with the findings of (Zucoloto et al., 2016) about the negative effect of student engagement on student burnout. Given the importance of learning effectiveness as a strategy in realizing the curriculum according to the vision, mission, and targets set by each study program, the results of this study implicate the importance of higher education through human resources of lecturers to apply teaching styles appropriately. As an inspiration for knowledge, lecturers are the right model to create achievement motivation and attachment to the learning process to improve students' academic performance.

## **V. LIMITATION OF THE STUDY**

However, this research could not be separated from its limitations. First, this study used cross-sectional data taken at one time so that it could not describe the behavioral changes needed in a more in-depth research discussion. Second, this study employed an instrument assessed by self-report by students, so it may not be able to neutralize the possibility of bias. Based on this research, suggestions for future research are, first, to use longitudinal study data to get a better picture of behavior change. Second, it could consider surveys that involve multiple sources of assessment, such as lecturers who might be able to provide better assessments.

## **VI. CONCLUSION**

This study shows that Student Motivation can be carried out by increasing Teaching Style. Not only that, but Student Motivation has also indicated an increase in Student Engagement rates. However, this study shows that teaching style, student motivation, and student engagement have no significant effect to student burnout. Teaching style have direct and indirect effect to student engagement. In general, the results of this research suggest that Teaching Style and Student Motivation simultaneously affect Student Engagement.

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