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## TEACHER-STUDENT RELATIONSHIP MODEL IN MUHAMMADIYAH ELEMENTARY SCHOOLS' TEACHERS IN INDONESIA: THE MEDIATING ROLE OF EFFORTFUL CONTROL

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### ABSTRACT

Previous research has consistently pointed out that student development is impacted by teacher-student relationships. Muhammadiyah, Indonesia's largest Islamic social organization, owns Muhammadiyah schools which include both elementary and secondary schools. Muhammadiyah elementary schools offer educational services indiscriminately. In Indonesia, there are more than two thousand Muhammadiyah elementary schools. Hence, research studies on Muhammadiyah elementary schools have a significant impact on the development of Indonesian education. This research uses the teacher as the subject rather than the student because teacher-student relationships are reciprocal. This study aims to identify the teacher-student relationship model in Muhammadiyah elementary schools using school climate and religiosity as predictors and effortful control as a mediator fit according to the teachers' perspective. A quantitative method with a cross-sectional design is conducted with 429 teachers from various Muhammadiyah elementary schools as participants. This research uses four variables: school climate and religiosity as independent variables, teacher-student relationship as dependent variable and effortful control as mediation variable. The result of confirmatory factor analysis indicates that all measurements are fit. Data analysis using structural equation modelling shows that the teacher-student relationship is mediated by effortful control of the impact of school climate and religion on teacher-student relationships. The implication of the research is to develop effortful control training to strengthen the teacher-student relationships in the Muhammadiyah elementary schools' environment.

**Keywords:** Effortful Control, Religiosity, School Climate, Teacher-Student Relationship



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## INTRODUCTION

The study of teacher-student relationships is a topic that has been discussed extensively but still has an important role in the development of education in a country. Previous studies confirm on the importance of teacher-student relationships. It has a good impact on teachers and students when the relationship is strong or healthy. The role of teacher-student relationships doesn't depend on the students' sole achievement but significantly influences the students' gradual achievement positively (Hajovsky et al., 2017; Hamre & Pianta, 2001; Liew et al., 2010; Rudasill & Rimm-Kaufman, 2009; Valiente et al., 2008; Wentzel, 1998). Several studies also displayed the positive impacts of solid student-teacher relationships on some variables such as children's adaptation in school, student self-efficacy, student involvement in school, rules-obedient behavior, self-motivation to be independent students, as well as the success of competency-based education (Bosman et al., 2018; Brinkworth et al., 2018; De Laet et al., 2016; Longobardi et al., 2016; Misbah et al., 2015; Zee et al., 2017)—the study outcomes are linked to teacher-student relationships significantly refined student development, including school teachers. Not only students, but teacher-student relationships also enhance teacher welfare in schools, teacher job satisfaction, and happiness for teachers when the relationship is positive and anxiety when the relationship is negative (Claessens et al., 2016; García-Moya et al., 2019; Ryan & Deci, 2017; Spilt et al., 2011).

Teacher-student relationships is a system of reciprocal connection between teachers and students based on the principles of a dynamic behavior system involving various components. Teacher-student relationships happen through cross-level interactions and within an organizational level that involves teachers and students influencing each other (Pianta et al., 2003). The presence of good teacher-student relationships is characterized by high teacher-student closeness and low teacher-student conflict (Pianta, 2001). Moreover, the teacher is the most crucial element based on Rimm-Kaufman and Sandilos (2015), which proves that in several cases of troublesome students at school, they will likely meet their teacher to find a solution. Therefore, a teacher becomes the center of the relationship that will determine the development of teacher-student relationships. The problem is that even though student-teacher relationship has an important role where students can improve. Realistically, according to the PISA survey, student-teacher relationships in various OECD countries do not show strong connections despite the continuous increase in the 2000 to 2009 survey (OECD, 2011). Therefore, there is still room for research on teacher-student relationships to be studied more in-depth so that the most appropriate way to improve it in the future can be obtained.

According to the PISA survey, Indonesian students stated that 85% of their teachers would give them extra help when in need. This fact occurred between 2000 to 2009. Contradiction to the question 'how students perceive whether their teacher listens to what the students have to say declined between 2000 to 2009 (OECD, 2011). It shows that there is still a problem with teacher-student relationships in Indonesia. This fact is supported by Ansyah's research where it is found that the teacher-student relationship in one of Muhammadiyah schools was in a dependent condition (Ansyah et al., 2021). This proves that teacher-student relationships in Indonesian or Muhammadiyah schools must be studied more deeply.

The teacher-student relationship model that has been discovered now refers to the teacher-student relationship theory stated by Pianta et al. (2003) defined that a teacher-student relationship is built from four components: individual characteristics, the teacher and student representation model, the information exchanging process between teachers and students, and external factors. Several models explained that effortful control (EC) became a mediator in forming a solid teacher-student relationship (Diaz et al., 2015; Swanson et al., 2016; Valiente et al., 2008). EC is the ability to withhold the dominant response, activate the subdominant response, and plan and detect errors (Rothbart & Bates, 2006a). Another model of teacher-student relations displayed that religiosity may become a predictor (Cappellen et al., 2017; Nouwen et al., 2019; Olufadi, 2017; Purwono et al., 2018), including school climate (Gablinske, 2014; Wang et al., 2016). Despite all that, no study has developed a teacher-student relationship model that combines school climate and religiosity as predictors and EC as a mediator.



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The teacher's experience is connected to the school climate and impacts the teacher's behavior toward students. Teachers with safe environment experience tend to build warm relationships with school students—a study by Lowenstein et al. (2015), conducted in 102 elementary schools, displayed that the school climate, marked by high social support, showed a high degree of closeness between teachers and students. In this context, it is explainable that teachers who experience social support from colleagues, school principals, and foundation administrators will likely have positive teacher-student relationships. This fact aligned with a study outcome by Wang et al. (2016) displayed the implication that a school climate that can provide a sense of security to teachers may determine how teachers can construct a positive relationship with their students.

The importance of teacher-student relationships can be seen in Bear's research on school climate measurement tools that places teacher-student relations as one of the domains in the Delaware School Climate Survey (Bear et al., 2011). However, this research places teacher-student relationships as a dependent variable and school climate as the independent variable. This placement differentiates this research from Bear's (Bear et al., 2011), where Bear uses students as participants, whereas this research uses teachers as participants. This research needs to study whether the relationship between teachers and teachers and the relationship between teachers and principals as mentioned in Hoy's school climate theory (Hoy, 2013) affects the relationship between teachers and students. In this way, it can be seen how teacher-student relationships are influenced by the school climate.

A positive teacher-student relationship reflects good interpersonal relationships. Some studies have shown that religiosity may influence the variable of interpersonal relations. A study on religiosity, among others, stated that religiosity significantly influences antisocial behavior negatively (Purwono et al., 2018) and prosocial behavior (French et al., 2013). A study on the prisoners' religiosity displayed that religiosity has an impact on reducing the prisoners' aggressiveness (Jang et al., 2018), where this aggressive behavior may allow interpersonal relationship issues to occur. It is also supported by a study that showed that religious people possess higher affiliated motivation in daily attitudes and behavior (Cappellen et al., 2017). Likewise, a study by Olufadi (2017) proved that religiosity is linked to the quality increase of one's positive relationships with others. According to these studies, it can be inferred that the teacher's religiosity may control how the teacher improves relationships with their students. Religious teachers tend to have a positive teacher-student relationship.

Not only religiosity but teachers' EC can also be linked with a quality improvement of teacher-student relationships according to several studies, which among others displayed that study outcome that children with a high EC were found to be more socially competent and exhibited fewer behavioral issues (French et al., 2013; Rothbart & Bates, 2006b; Rueda, 2012; Silva et al., 2011), possibly that the teachers saw these children as well-behaved, less troublesome, and more idealistic. The EC is a person's ability to suppress the dominant response and opt for a non-dominant deliberately or unfavored response to adapt and attain a long-term goal (Purwono et al., 2018; Rothbart & Bates, 2006b; Silva et al., 2011). In the teachers' context, teachers with a good EC can endure dominant responses that tend to be destructive and will likely activate more positive responses to these students. Some studies showed that EC is negatively connected to the teacher-student conflict in the sample of low-income preschoolers (Myers & Morris, 2009) and is linked with greater teacher-student intimacy in the first grade (Liew et al., 2010; Rudasill & Rimm-Kaufman, 2009). With high EC, teachers should be able to hold the responsibility to self-restraint if things happen that cause anger due to unexpected student behavior, then further foster more positive relationships with these students. So, students who do not meet the expectations can find answers from teachers who have EC to learn better since students are close to their teachers. The relationship between dispositional effects such as EC and the student-teacher relationship from the perspective of elementary school teachers has not been widely studied.

In this study, the authors intended to directly or indirectly test the models associated with the role of school climate and religiosity on teacher-student relationships through EC. This study is consistent with the view of Rothbart and Bates (2006a) related to the significance of considering a temperament, in this case, EC, which will be examined as a mediator variable on the effect between school climate and religiosity on teacher-student relationships. This study is also coherent with the opinion of Diaz et al. (2015) concerning the importance of school context research in



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predicting teacher-student relationships and EC.

The research subjects used were teachers, not students, with the first consideration being studies on teacher-student relationships have not been widely conducted. Second, in the teacher-student relationship concept, the teacher plays the primary role in deciding the course of the teacher-student relationship, which will turn into either good or bad, as explained by Rimm-Kaufman and Sandilos (2015), when students are troubled. Thus, a teacher as an adult figure is pivotal in deciding what must be done to construct a positive relationship with students.

Also, this study used the context of Muhammadiyah elementary schools with some considerations. Firstly, the Muhammadiyah Association manages more than ten thousand schools ranging from kindergarten to high school/madrasah or the equivalent. Educational institutes under the Muhammadiyah Association are also dispersed across Indonesia, from Aceh to Papua (Marnati, 2015). Muhammadiyah has 2.604 elementary schools around the nation. With this number of schools, Muhammadiyah is the only mass organization with the largest educational institution in Indonesia. Muhammadiyah schools are Islamic-based schools and use the Indonesian national curriculum. Muhammadiyah elementary schools, which have children from six to thirteen years old, accept children from various backgrounds, religions, ethnicities, and races (Marnati, 2015). Therefore, the study in the context of Muhammadiyah schools will significantly influence Indonesian education's development. That is why this study uses Muhammadiyah elementary schools as the basis of the research.

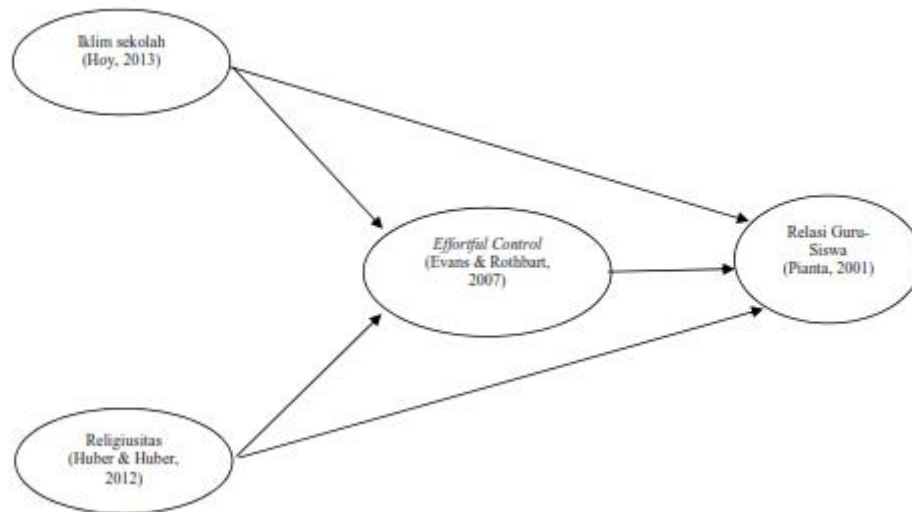
The second reason is that there are still issues with teacher-student relationships in Muhammadiyah schools. These issues include low academic accomplishment, reading skills, rules-breaking behavior, and low student discipline. The outcomes of a study in one Muhammadiyah elementary school displayed that 7% of teachers considered them to have a shallow teacher-student relationship, and the other 26% considered them to be at a low level (Ansyah et al., 2021). It is coherent with a previous study, which defined that the low teacher-student relationship leads to low learning success in mathematics for female students and reading skills for male students in early elementary school (Valiente et al., 2019), showed that the study of teacher-student relationship in a context of Muhammadiyah elementary schools is still relevant to be conducted, so that the outcomes of this study may serve as a solution to the issues of teacher-student relationships in a context of Muhammadiyah elementary schools (Ansyah et al., 2018). Moreover, the scholars focused the research on elementary schools since elementary schools have a significant role in developing children's growth, as mentioned by Marsiglia et al. (2011) state that troublesome behavior in junior high school children will be more manageable if an intervention has been implemented starting from elementary school.

Based on the mitigating factors and previous research, the authors drafted a hypothesis on whether a teacher-student relationship model in Muhammadiyah elementary schools with school climate and religiosity as the predictors and EC as the mediator can become a firm model from teachers' perspective. This hypothesis model is shown in Figure 1.



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Figure 1. Teacher Student Relationship Model



## METHODS

The approach employed in this study is quantitative with a cross-sectional design. The sampling technique employed is multistage random sampling. The data was collected from all the teachers in 14 Muhammadiyah elementary schools. The total participants consisted of 429 teachers. The participants came from Surabaya, Sidoarjo, Malang, Trenggalek, Ngawi, Bangkalan, Gresik, and Jember Districts. All these districts are part of the East Java Province of Indonesia. This study used the context of Muhammadiyah elementary schools since Muhammadiyah possesses the largest private schools in Indonesia (Marnati, 2015). This study comprised of dependent variables, namely teacher-student relationship and EC as mediators. Furthermore, the independent variables were school climate and religiosity.

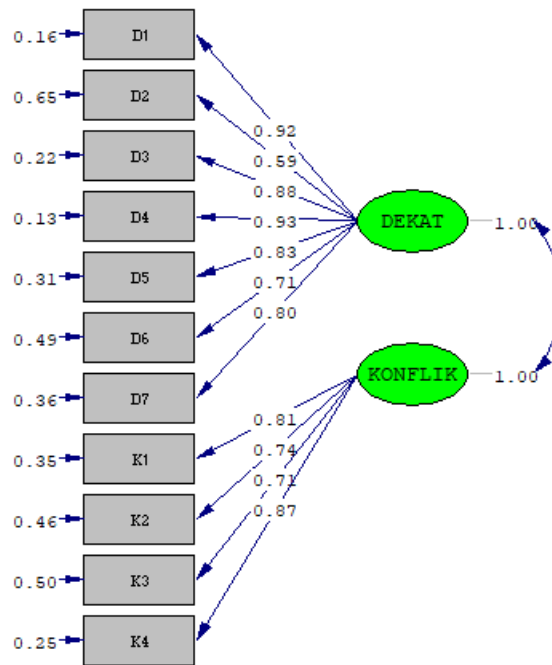
The instruments used in this study are the Teacher-Student Relationship Scale (TSRS) (Pianta, 2001), the EC subscale on the Adult Temperament Questionnaire (ATQ) measurement device (Evans & Rothbart, 2007), the Centrality of Religiosity Scale (CRS) (Huber & Huber, 2012), and Organizational Climate Description for Elementary Schools (OCDQ-RE) from Hoy (2013). All instruments used have been adapted to Indonesian. The adaptation process of all instruments uses standards from the International Test Commission (ITC) Guidelines for Test Adaptation as a guide (International Test Commission, 2016) which are precondition, forward translation, synthesis forward translation, backward translation, synthesis backward translation, expert review, final instrument as translation result, and tryout of scales or instruments.

Scale or instrument tryout of the teacher-student relationship was measured using a Short Configuration of the Teacher-student Relationship Scale (TSRS-SF) (Pianta, 2001a), comprised of two indicators with 11 statements. The scale was developed from a Likert scale with five answer choices ranging from completely inappropriate (1) to very appropriate (5). The confirmatory factor analysis (CFA) test showed that RMSEA = 0,050 with a loading factor ranging from 0,59 – 0,93. The outcomes from CFA using Lisrel 8.70 can be seen in Figure 1.



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Figure 2. Outcomes of a CFA Test on the Teacher-Student Relationship Scale



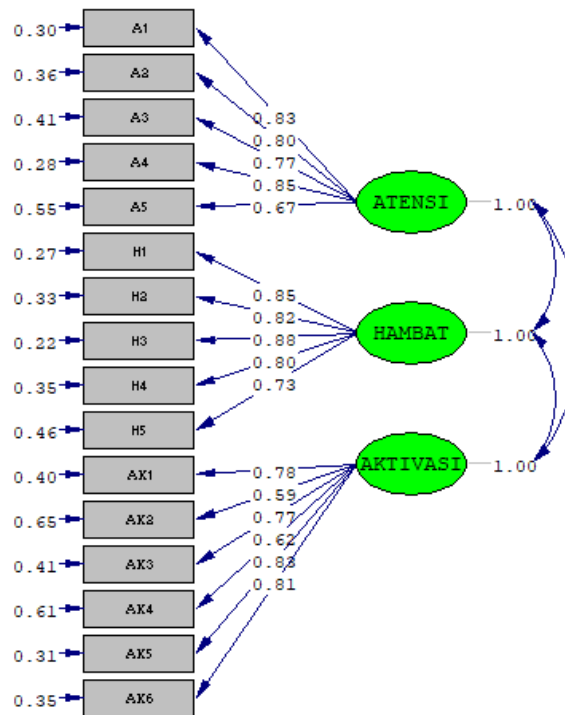
Chi-Square=89.29, df=43, P-value=0.00004, RMSEA=0.050

The teachers' EC scale used the EC factor in a short form analyzer of the ATQ (Evans & Rothbart, 2007): effortful attention, inhibitory control, and dan activation control. The use of the EC factor in ATQ to measure EC is visible in studies by Rothbard dan Rueda (2005) and Gaias et al. (2016). This scale consists of 19 items and is rated using a 7-point Likert scale ranging from entirely invalid (1) to very valid (7). The outcomes of CFA on the EC scale displayed that RMSEA = 0,051, and the loading factor ranged from 0,59 - 0,88. The outcomes of the CFA using Lisrel 8.70 can be seen in Figure 2.



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Figure 3. Outcomes of a CFA Test on an Effortful Control Scale



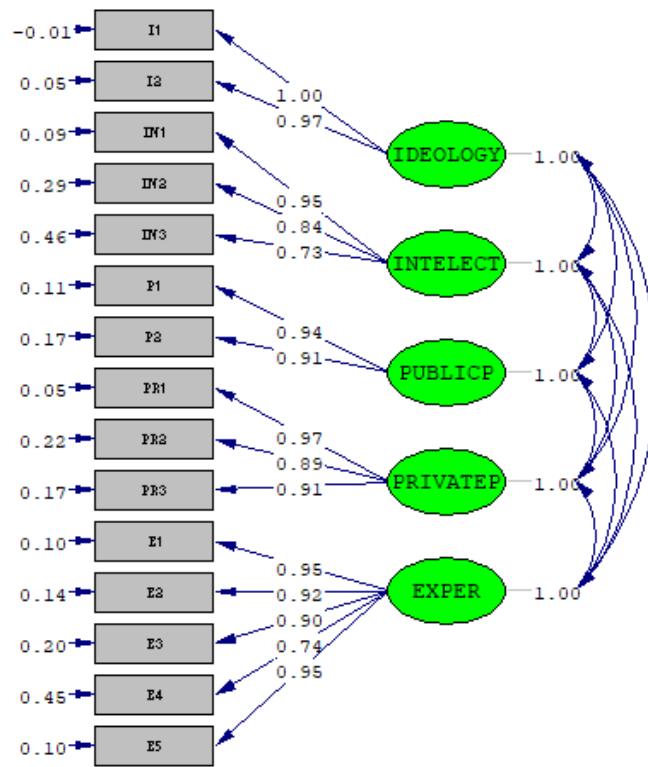
Chi-Square=215.04, df=101, P-value=0.00000, RMSEA=0.051

Religiosity is measured through the CRS (Huber & Huber, 2012). This scale quantifies teacher religiosity by using five dimensions comprising intellectual dimension, ideological dimension, public practice dimension, private practice dimension, and religious experience dimension comprising 15 items in the form of a Likert scale ranging from never (1) to often (5). The CFA outcomes on this religiosity scale displayed RMSEA = 0,042 and the loading factor ranging from 0,73-1,00. The outcomes of the CFA using Lisrel 8.70 can be seen in Figure 3.



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Figure 4. Outcomes of a CFA Test on The Religiosity Scale



Chi-Square=139.52, df=80, P-value=0.00004, RMSEA=0.042

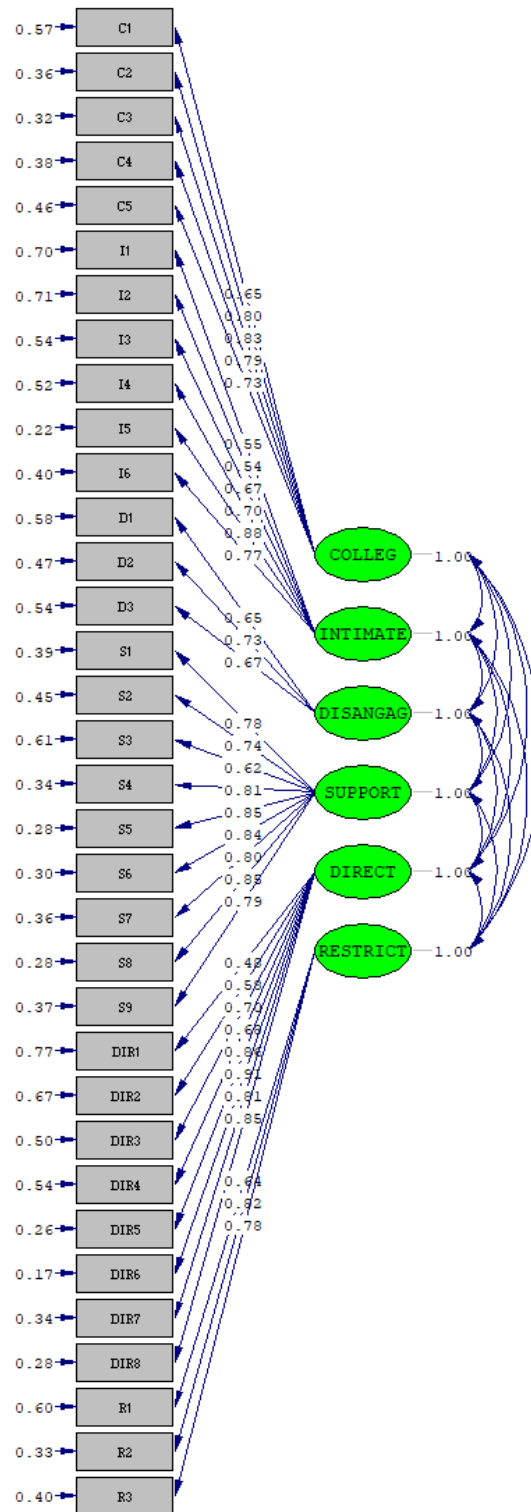
As for the organizational climate, the scale uses the OCDQ-RE from Hoy (2013). This scale refers to the six dimensions of school climate, which are assembled into two categories, namely: headmaster behavior (supportive headmaster behavior, directive headmaster behavior, and restrictive headmaster behavior) as well as teacher behavior (collegial teacher behavior, intimate teacher behavior, and uninvolved teacher behavior). This scale comprises 34 items and is rated using a four-point Likert scale ranging from rare (1) to very often (4). The analysis outcomes of CFA displayed that RMSEA = 0,052 and the loading factor ranging between 0,54 - 0,91, as shown in Figure 4.





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Figure 5. Outcomes of a CFA Test on the School Climate Scale



Chi-Square=1098.74, df=512, P-value=0.00000, RMSEA=0.052



The CFA test shows that all measurement instrument models used in this study fit. The convergent validity of all measurement instruments is chosen through the use of the Average Variance Extracted (AVE) calculation, where a score above 0,5 shows a good convergence (Ghozali & Fuad, 2014), and the composite reliability (CR) calculation, where the adjusted minimum value is set to indicate that the acceptable construct is of 0.70 if the reliability value is exceeding 0.70, the construct is then passed the reliability test (Ghozali & Fuad, 2014). The outcomes of AVE and CR tests on the four scales used are visible in Table 1.

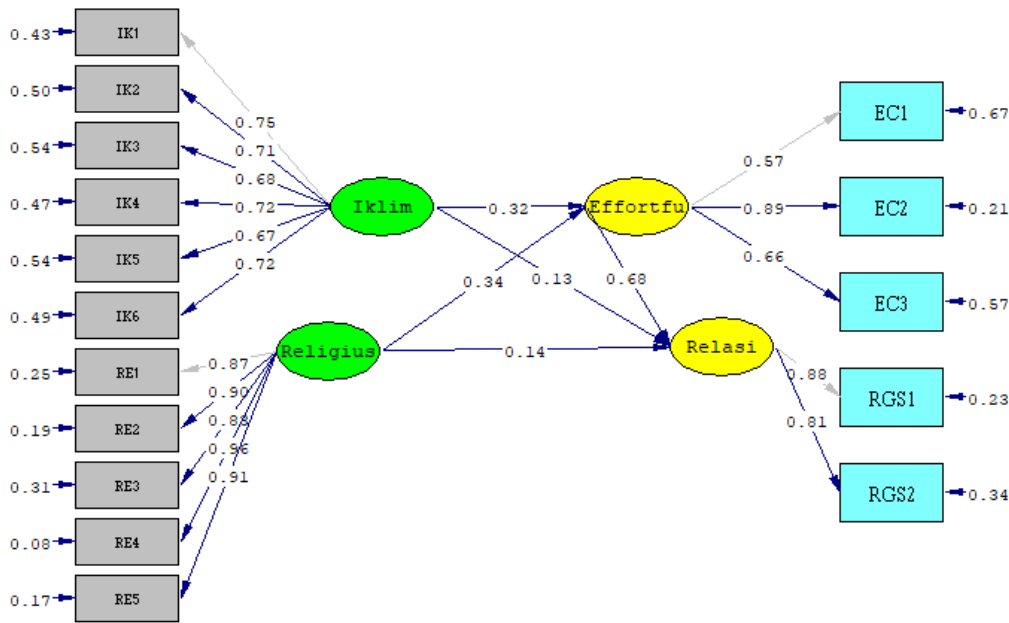
**Table 1. Outcomes of AVE and CR Tests**

Construct	Construct Reliability (CR)	Average Variance Extracted (AVE)	Reliability
Teacher-Student Relationship	0.833	0.714	Reliable
Religiosity	0.953	0.801	Reliable
School Climate	0.859	0.503	Reliable
Effortful Control	0.766	0.517	Reliable

**RESULTS**

The model using Lisrel 8.70 displayed fitting model compatibility by examining the structural model of the teacher-student relationship. The outcomes of the goodness of fit test with measurement model values in Figure 5. are the index  $\chi^2 = 307,33$  df = 98,  $p = 0,000$ ; RMSEA = 0,071 (cut off < 0,08); CFI = 0,974 (cut off > 0,9); GFI = 0,918 (cut off > 0,9); SRMR = 0,044 (cut off < 0,05); NFI = 0,961 (cut off > 0,9), as displayed in Figure 5.

**Figure 6. The Outcome of a SEM Model on Teacher-Student Relationship**



Chi-Square=307.33, df=98, P-value=0.00000, RMSEA=0.071

The structural equation and determination coefficient of endogenous – the description of latent variables on the teacher-student relationship model is in Table 2.



**Table 2.** *Structural Equation and Determination Coefficient of Endogenous – Latent Variables on Teacher-Student Relationship Model*

No	Endogenous Variable	Latent	Structural Equation	R <sup>2</sup>
1	Effortful Control		0.565*School climate + 0.318*Religiosity	0.263
2	Teacher-Student Relationship		0.521*Effortful control + 0.172*School climate + 0.103* Religiosity	0.650

According to the structural equation test outcomes, two structural equations are measurable in this study, as shown in Table 2. It means that the coefficient of school climate determination and religiosity are not as significant as their effect on teacher-student relations unless EC as a mediator. Hence, the coefficient of school climate determination and religiosity, along with the teacher-student relationship, is only 26.3%, whereas it may turn 65% through EC.

## DISCUSSION

The result revealed that school climate has little congruence in the impact on teacher-student relationships unless it is mediated by EC. This includes the impact of religiosity on teacher-student relationships, which is stronger if mediated by EC. It shows that the previous model of teacher-student relationships from Pianta et al. (2003) which focuses on character factors such as religiosity has little impact on teacher-student relationships unless mediated by EC. This finding is consistent with previous research (French et al., 2019; Purwono et al., 2018) and supported literature that external factor such as school climate impacted the teacher-student relationships (Paizan et al., 2024). As the Developmental System Theory (DST) (Lerner, 1998) explains, the relationship process between teachers and students is based upon a teacher's perspective to investigate, understand, and integrate knowledge. Teacher's religiosity may become a pattern that teachers carry to shape the ability to adapt to their surroundings or the school's climate that they perceive, so they also build an effort to conduct an EC so that the teacher may construct a positive relationship with their students. Similarly, religiosity, as someone's construct that is activated to anticipate something with a religious meaning capable of being a predictor of the teacher-student relationship, and EC may become its mediator.

The model of the teacher-student relationship that became findings in this study is explained by the relationship between teachers and students, which is caused by two factors, more concretely and comprehensively. First, it concretely emphasizes variables on a conceptual model of the teacher-student relationship from Pianta et al. (2003). Second, it develops a teacher-student relationship model from Diaz et al. (2015), Lowenstein et al. (2015), Nouwen et al. (2019), Li, et al. (2021) and the model from Purwono et al. (2018). The conceptual model of the teacher-student relationship from Pianta et al. (2003) described teacher-student relationships as found through both factors of external & teacher characteristics. In contrast, this study emphasized the position of the school's climate as the external and religious factors and EC as the teachers' characteristics.

The outcome of this study complements the previously existing model, whereas the teacher-student relationship model from Diaz et al. (2015) already involved EC, albeit without involving the role of the school's climate and religiosity. The model from Lowenstein et al. (2015) displayed the role of a school's climate towards teacher-student relations despite positioning the relationship as a mediator variable, not a dependent variable. A model from Nouwen et al. (2019) positioned religiosity as a moderator predictor of the teacher-student relationship, not a dependent variable—a model from Li et al. (2021) described the influence of a school's climate as a predictor and EC as the mediator towards behavior, although without religiosity. As for the model, Purwono et al. (2018) explained the role of religiosity as a predictor and EC as a mediator without involving the school's climate towards behavior, enabling its influence on teacher-student relations.

The findings in this study combined teacher-student relationship models from Pianta et al. (2003), Lowenstein et al.



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(2015), Nouwen et al. (2019), Diaz et al. (2015), Li et al. (2021), and Purwono et al. (2018). Through this combination, this study positioned the school's climate and religiosity as the influential predictor directly and indirectly by mediating EC of the teacher-student relationship.

One theory that explains teacher-student relationships is the attachment theory from Ainsworth (1989). This theory described the attachment bond as an affectionate bond, characterized by a relatively long-lasting bond where a pair becomes crucial as a unique individual and cannot be exchanged from one to another (Ainsworth, 1989). Teachers' attachment to their surrounding environment, for instance, to their headmaster or peers, will internalize in a mental representation of a teacher, which in time will decide how teachers build a relationship with their students, as stated by Verissimo et al. (2017). It was stated that the teacher-student relationship is a collective construction built upon a secure attachment to the teacher and their surrounding environment: the headmaster or their peers. The principals who always support a teacher to serve better will become safely attached figures for teachers to build relationships like their students. The presence of solid fellow teachers that provide an emotional closeness for a teacher will also become a safely attached figure to eventually build a positive teacher-student relationship through EC or better self-control.

A study by Diaz et al. (2015) and Li et al. (2021) displayed that EC is a mediator from a predictor of a school's climate towards forming teacher-student relations. According to the attachment theory, the teacher-student relationship will be formed by representing the teacher's mental EC and how a teacher perceives his or her surrounding school's climate. Teachers who perceive their surrounding school's climate tend to view their relationships with their peers more positively, including their relationship with their superiors. In the later stage, this will influence teachers to conduct a more substantial EC to enhance their relationship with the students. Several studies even showed that the open school climate is influential on the teacher-student relationship (Lowenstein et al., 2015), and through EC as a mediator, it may affect the behavior (Diaz et al., 2015; Li et al., 2016; Liew et al., 2010).

In the context of Muhammadiyah school, it can be explained that it is necessary to develop a principal who can support the teachers in developing themselves to build a positive and strong relationship between teachers and their students through a school's climate. The headmaster of Muhammadiyah School needs to formulate a systematic program to improve a teacher's competence and career, like involving teachers in various training, learning workshops, concrete degrees, and implementing routine school supervision that is followed by a concrete follow-up. Aside from that, a collegial and supportive workmate in a Muhammadiyah school is essential to creating a positive school climate, like the need for group activities to share through teacher dissemination. A teacher who already went to external self-development or training needs to have a forum to share the knowledge with their fellow teachers. A morning briefing activity together with all school components, with each taking turns to deliver their input or new understanding about the learning process or to share students' cases that are found in the school, to be discussed for its solution, which can be a media showing the support of fellow Muhammadiyah teachers in that primary school, when a teacher of Muhammadiyah primary school felt that positive climate, there is a chance that the said teacher will display a more controlled behavior or patience or better EC on the students so a teacher in Muhammadiyah primary school may develop a better relationship with their students.

As the religiosity theory is explained by Bergan and McConatha (2001), it implies that one's belief and involvement in Islam will influence one's behavior, which is why teachers must perform various attempts to enhance their belief or fairness, as well as their deeds. From the five dimensions from Huber and Huber (2012), teachers of Muhammadiyah need to learn more through recitation forums, supplicate the Holy Qur'an and its interpretations, and read the *tarjih* policy so that a comprehensive thought of religion may emerge. Additionally, teachers must familiarize themselves with *jama'ah* prayer activities with students or other teachers at school. Another deed is to involve oneself in raising *zakat*, *infaq*, and *sadaqah* (charity) as an altruism form, which is also a part of Islamic teachings that need to be performed by teachers in Muhammadiyah primary schools. Therefore, as found in this study, the teachers' religiosity at Muhammadiyah primary schools could make sense of the teachers' EC. As proven by French et al. (2019) and Purwono et al. (2018), religiosity may reflect how a teacher builds teachers' mental



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representations to perform societal deeds (public practice dimension) that allow them to grasp that there is Allah's power when dealing with troublesome children and later encourage them to be better withhold emotional urges so that teachers are still able to share a warm and loving relationship with their students.

## CONCLUSION

The teacher-student relationship model was conducted with EC as the mediator between religiosity and school climate as predictors. The teacher-student relationship model found in this study may give a new input within the development of education, especially in Indonesia in general and for Muhammadiyah colleges specifically. Several limitations can be used as references for further studies: first, the sample used is Muhammadiyah primary school teachers, although the issue of the teacher-student relationship lies in the teachers of kindergarten, junior high, and senior high. The following study can be conducted on kindergarten, junior and senior high teachers. Second, the sample used in this study is the teachers of Muhammadiyah primary school in East Java, which most likely has not represented the characteristics of primary school teachers in Indonesia, including primary schools with religious affiliations like primary schools of *NU*, *Al Irsyad*, or *Jaringan Islam Terpadu* (Integrated Islamic Network). Therefore, further study may use a sample from another primary school with a different religious affiliation. Third, this study used a cross-sectional method and it is expected that future research can use a longitudinal method to acquire a more holistic and continuous outcome on the teacher-student relationship.

The implication of the study is that EC plays an important role in enhancing the teacher-student relationship at Muhammadiyah elementary schools. Furthermore, to raise the quality of Muhammadiyah elementary schools in Indonesia, Muhammadiyah leaders should conduct teacher training to make EC based on religiosity and school climate better.

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