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***Article***

# The Effects of Teacher Autonomy, Student Behavior and Student Engagement on Teacher Job Satisfaction

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## Abstract

Teacher job satisfaction has received much attention in the recent past due to its insidious effect on the quality of education and learning. By integrating self-determination theory, job demands-resource model and the theory of student involvement, the present study aims to establish the nexus of teacher autonomy, student behavior, student engagement, and teacher job satisfaction. Data were amassed with a self-administrated questionnaire from 703 teachers working in state schools. As a caveat, prior to examining the hypotheses with a partial least square based structural equation modelling approach, a confirmatory factor analysis with AMOS was performed. Results disclose that teacher autonomy and student behavior positively relate to teacher job satisfaction. The study further found that student engagement partially mediates the effect of student behavior on teacher job satisfaction. In addition, the results aver that the higher level of teacher autonomy strengthens the positive relationship between student behavior and teacher job satisfaction. The present study pushes back the frontiers of the extant literature in education and proffers many useful practical implications. The limitations and suggestions for further advancement in the field are also discussed.

## Keywords

Teacher autonomy • student behavior • student engagement • teacher job satisfaction • PLS-SEM approach

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In education research to date, a plethora of studies have extensively investigated various teacher-student specific antecedents and outcome variables: engagement (e.g., Balwant, 2018; Pearson & Moomaw, 2005; Skaalvik & Skaalvik, 2014; Simpson & Burnett, 2017), teacher well-being (e.g., Aldrup et al., 2018), turnover intentions (e.g., Lee, 2019), commitment (e.g., Anari, 2012), job satisfaction (e.g., Brezicha et al., 2019; Skaalvik & Skaalvik, 2014), organizational citizenship behavior (e.g., Somech, 2016), student misbehavior (e.g., Aldrup et al., 2018; Glock & Kleen, 2019), emotional intelligence (e.g., Pervaiz et al., 2019), autonomy (e.g., Pearson & Moomaw, 2005; Skaalvik & Skaalvik, 2014; Somech, 2016), and teacher efficacy (e.g., Caprara et al., 2003; Skaalvik & Skaalvik, 2014). Since the vast majority of studies conducted in the Western cultural setting are only reflective of their cultural contexts, the findings of those studies cannot directly be applied to another cultural context (see Ding et al., 2008; Leung & Ho, 2001). On an equal footing, there is a paucity of research studies that have been undertaken in the context of the teaching profession in developing countries (see Pervaiz et al., 2019). To the extent of my knowledge, none of the studies have previously examined the relationship between teacher autonomy, student behavior, student engagement, and teacher job satisfaction. The present study, therefore, responds to the acknowledgement of the need.

Teacher job satisfaction is of growing importance in recent years owing to its significant effects on school constituencies such as principal, student, teacher and society in masse (Brezicha et al., 2019). For instance, previous studies confirm that teacher well-being, teacher motivation, school commitment, turnover intentions, organizational citizenship behaviors, and welfare of students and schools are resultant outcomes of teacher job satisfaction (Fisher et al., 2018; Pervaiz et al., 2019). Nonetheless, the factors determining teacher job satisfaction are country-culture specific, such as national educational policy, educational system, culture and other macro-environmental factors (see Anari, 2012; Brezicha et al., 2019; Geisler et al., 2019; Pervaiz et al., 2019; Skaalvik & Skaalvik, 2014). The dearth of studies on teacher job satisfaction do not suffice to definitively demonstrate the empirical evidence to support factors contributing to teacher job satisfaction, and systematic studies are hitherto sparse that regards as a point of departure in educational settings. Consequently, the present study profoundly considers teacher job satisfaction as an outcome variable.

Many studies underscore the importance of teacher autonomy referring to having control over their school environment and leeway in decision making on the most parts of their job (Pearson & Moomaw, 2005; Skaalvik & Skaalvik, 2014; Somech, 2016). Studies directly related to teacher autonomy on teacher job satisfaction are few in numbers (e.g., Pearson & Moomaw, 2005; Skaalvik & Skaalvik, 2014) and the autonomy accommodates consistent changes and continues to evolve over the years (Pearson & Moomaw, 2005). Notably, none of the studies have examined the relationship between autonomy and job satisfaction among the teachers in the context of Sri Lanka and teacher autonomy in response to student destructive behavior has not been previously explored. Therefore, the dual role of teacher autonomy determining teacher job satisfaction is remained unanswered, promising a need for rigorous research. Consequently, the present study fills a lacuna left by previous studies and thus extends all such previous works by examining such dual role of teacher autonomy in the context of teacher job satisfaction.

Teachers' perception of student behavior that has intolerably departed from usual behavior such as aggression towards the teacher, fighting, and use of mobile phones, may have detrimental effects on student engagement and teachers' positive feeling towards their school (e.g., Aldrup et al., 2018; Jones et al., 1995; Kyriacou & Martín, 2010; Parker & Levinson, 2018). Notably, a particular behavior is regarded as a serious concern in one cultural setting but not in another context (Leung & Ho, 2001). The dominant literature highlights student (mis)behavior as a major concern, nonetheless, the effects of student (mis)behavior on

teachers' outcomes have been far less focused (see Aldrup et al., 2018; Ding et al., 2008; Evans et al., 2019; Glock & Kleen, 2019; Kyriacou & Martín, 2010; Parker & Levinson, 2018). The direct and indirect effects of student behavior on teacher job satisfaction through student engagement have been heretofore overlooked in earlier studies. Therefore, the present study fills another hiatus left by previous studies.

The present study further notices that student engagement is a key factor that supports for delivering high-quality education and oft-related to student performance and student satisfaction (Kahu, 2013). Interestingly, Balwant (2018) treats student engagement as a buzzword and underscores its importance in items of a number of internet search for student engagement in higher education that hits over 13.4 million. Students engaged in schools show a high level of commitment towards learning, and consequently, engagement is regarded as a critical factor equally contributing to favorable outcomes for both students and teachers (Konold et al., 2014). However, the relationship between student engagement and teacher job satisfaction has not been previously explored (see Fisher et al., 2018; Skaalvik & Skaalvik, 2014; Simpson & Burnett, 2017), and thus, the present study fills another void left by earlier studies.

In a nutshell, the objective of the current study is to investigate the nexus between teacher autonomy, student behavior, student engagement, and teacher job satisfaction. The study introduces a completely novel model describing (i) direct relationships between teacher autonomy and teacher job satisfaction and between student behavior and teacher job satisfaction, (ii) moderating role of teacher autonomy of the relationship between student behavior and teacher job satisfaction, and (iii) student engagement as a mediator between student behavior and teacher job satisfaction.

The remainder of this paper proceeds as follows. First, anchored in robust theoretical and empirical grounds, theoretical relationships among teacher autonomy, student behavior, student engagement, and teacher job satisfaction are expressed by means of a set of hypotheses. The methodology that has been used in the current study is discussed next. Following the methodology, the formulated hypotheses are examined using a partial least square based structural equation modelling (PLS-SEM) approach. The paper concludes with a discussion of results, contributions, limitations and suggestions for future directions.

## Theory and Hypotheses

Self-determination theory maintains that innate psychological needs such as competence, autonomy and relatedness are the drivers fostering positive process such as self-motivation, behavioral self-regulation and personal well-being (Ryan & Deci, 2000). The self-determination theory describes autonomy as "not to being independent, detached, or selfish but rather to the feeling of volition that can accompany any act" (Ryan & Deci, 2000, p.74) and some theories liken autonomy to individualism and independence. The self-determination theory strongly supports the notion that people who have a greater feeling of autonomy (self-determined) exhibit a greater sense of positive feelings. Consequently, the present study imports the self-determination theory from the psychology into the domain of education (see Deci & Ryan, 2000; Niemiec & Ryan, 2009; Ryan & Deci, 2000) in which teaching profession is expected not to occur in a vacuum, and when teachers are autonomous, they feel a greater sense of control and volition, and subsequently, they feel exalted.

In a similar vein, the previous empirical studies maintain that teacher autonomy is about the feeling of teachers that they have control over many aspects in the context of school settings such as freedom to choose teaching methods and strategies, making classroom decisions, a key role in school-wide decision making, and influencing working conditions (Deci & Ryan, 2000; Firestone & Pennell, 1993; Pearson & Moomaw, 2005; Skaalvik & Skaalvik, 2014; Somech, 2016). Remarkably, earlier studies confer teacher autonomy as an essential element of teacher motivation (Pearson & Moomaw, 2005). A very small corpus of empirical evidence suggests that teacher autonomy has a positive association with teacher job satisfaction

(e.g., Skaalvik & Skaalvik, 2014), nonetheless, some studies report conflicting results (Pearson & Moomaw, 2005). Notably, those studies predominantly investigated in the context of the Western culture are reflective of such cultural context and therefore, there is an intriguing conundrum of the applicability of the findings in a different cultural context (see Ding et al., 2008; Leung & Ho, 2001). Meanwhile, studies reflecting on developing countries are also scarce. Therefore, the present study attempts to answer a long-lasting question whether the positive relationship between teacher autonomy and teacher job satisfaction holds in diverse cultural context, including Sri Lanka. Thus, it can be hypothesized that there is a significant positive relationship between teacher autonomy and teacher job satisfaction (hypothesis 1).

Students' misbehaviors refer to a set of inappropriate behaviors that are deviated from the ideal student state such as inattention, disobedience, aggression towards the teacher, daydreaming, fighting, bullying, physical aggression towards other students, breaching class rules, coming to class unprepared, interrupting other students, verbal abuse towards other students, use of mobile phones, cheating, disturbing others, passing notes, making unusual noises, a hostile argument with the teacher, nonattendance, talking out of turn, racist remarks, asking counterproductive questions, and eating candy (Aldrup et al., 2018; Jones et al., 1995; Kyriacou & Martín, 2010; Little, 2005; Merrett & Wheldall, 1984; Parker & Levinson, 2018). Till now, student misbehavior has been associated with many outcome variables such as teacher well-being, anxiety, strain, and emotional exhaustion, lower enjoyment, and work engagement (e.g., Aldrup et al., 2018; Parker & Levinson, 2018). The most recent study of Aldrup et al. (2018) found a strong relationship between student misbehaviors and teacher well-being. Similarly, another study found student misbehavior causes teachers' stress (Lewis et al., 2005). Although Caprara et al. (2003) found that behaviors of principals and colleagues substantially contribute to teacher job satisfaction, the student behavior towards teacher job satisfaction has not been hitherto addressed in the current literature. The majority of students' misbehaviors occur in the classroom and such misbehaviors are oft-treated as a serious concern, that affects effective classroom teaching (Ding et al., 2008; Kyriacou & Martín, 2010) and consumes too much of teaching time to correct students' misbehaviors (Merrett & Wheldall, 1984), and therefore, student misbehavior is expected to damage teacher job satisfaction. In line with earlier discussion, the perceptions of students' behaviors are culture-specific in which a problematic behavior in one setting will not be a serious concern in another cultural context (see Ding et al., 2008). Therefore, the overriding importance is to know the unknown effects of teachers' perceptions and interpretations of students' behaviors on teacher job satisfaction. Anchored in previous studies, it remains to be clarified the extent to which student behavior influences teacher job satisfaction. Thus, it can be hypothesized that there is a significant positive relationship between student behavior and teacher job satisfaction (hypothesis 2).

The present study invokes the job demands-resource (JD-R) model to explain the nature of the relationship between student behavior, teacher autonomy and teacher job satisfaction. Student misbehavior is regarded as job demands, teacher autonomy as a job resource and the teacher successfulness on the modification of the student misbehavior as an indication of teacher job satisfaction. The job demands mean "physical, psychological, social, or organizational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort or skills and are therefore associated with certain physiological and/or psychological costs" (Bakker & Demerouti, 2007, p. 312). For instance, work pressure and interactions that are emotionally demanding with customers. The job resources are the job characteristics that trigger the motivational process thereby buffering the impact of job demand on job stress (Bakker & Demerouti, 2007). The confluence of the JD-R model and the job characteristics theory emphasizes that autonomy is a potential motivational job resource (Bakker & Demerouti, 2007; Hackman & Oldham, 1980). The basic tenet of the JD-R model is that a high level of job demands with a low level of

job resources has detrimental effects on employees. Therefore, the present study holds a view that teacher autonomy as a job resource that buffers the negative relationship between student misbehavior, considered as job demand, and teacher job satisfaction as a job outcome.

Dealing with student misbehavior is a challenging endeavor and teachers become angry if misbehavior is intentional and repeated (Frenzel, 2014). To control students' misbehaviors, there is a need for teachers to strictly impose corrective measures in and out of the classroom. This requires a greater level of teacher autonomy that empowers teachers by giving greater freedom and discretion over the school environment in the everyday life of the school (Somech, 2016). Further, studies highlight that autonomy makes the teacher responsible for good practice (Skaalvik & Skaalvik, 2014). It is, therefore, expected that teachers with high autonomy steer student misbehavior and consequently, feel greater job satisfaction. Taken together with the previous studies, the nexus of student behavior, teacher autonomy and teacher job satisfaction has been extensively neglected in previous studies (e.g., Ding et al., 2008; Evans et al., 2019; Glock & Kleen, 2019; Parker & Levinson, 2018). Thus, it can be hypothesized that teacher autonomy moderates the relationship between student behavior and teacher satisfaction such that the positive relationship between student behavior and teacher job satisfaction will be stronger at a high level of teacher autonomy (hypothesis 3).

Student engagement is regarded as a critical factor equally contributing to favorable outcomes for both students and teachers (Konold et al., 2014). Albeit student engagement has been oft-related to various student-related outcomes such as student performance, learning, student motivation and dropout rates (see Appleton et al., 2008; Fisher et al., 2018; Skaalvik & Skaalvik, 2014; Simpson & Burnett, 2017), the relationship between student behavior and teacher job satisfaction through student engagement has not been hitherto explored (see Fisher et al., 2018; Skaalvik & Skaalvik, 2014; Simpson & Burnett, 2017). The present study expects that students' misbehavior disrupts their learning, thereby reducing their engagement in the classroom. For instance, one study depicts that the prevalence of teasing and bullying has been related to lower student engagement (Mehta et al., 2013). Put it in another way, students who have acceptable behaviors are self-regulatory becoming successful with their academic performance (see Fisher et al., 2018; Kahu, 2013; Balwant, 2018; Simpson & Burnett, 2017), thereby teachers feel proud of their students attributing the students' success to their teaching endeavors that makes them feel happy.

Astin's (1984) theory of student involvement has been adduced to explain the relationship between student behavior and engagement and teacher job satisfaction. The theory profusely concerns with behavioral mechanisms that equate to the concept of "motivation" reflected in psychology for burnishing students' development. One of the most important elements of the theory named student-faculty interaction explains that students who have frequent interaction with faculty members involve more, and feel satisfied because of the institution rewards they receive over their good academic performance that makes all aspects of school life happier (Astin, 1984). Taken together with the theoretical view of student involvement and empirical evidence, it is expected that students' acceptable behaviors become a fertile ground for students' engagement in their learning process and thus makes teachers feel satisfied. Notwithstanding, it remains agnostic the extent to which student behavior influences teacher job satisfaction through student engagement. Thus, it can be hypothesized that student engagement mediates the relationship between student behavior and teacher job satisfaction (hypothesis 4). All hypotheses that have been developed based on the aforesaid theoretical grounds are depicted in Figure 1.

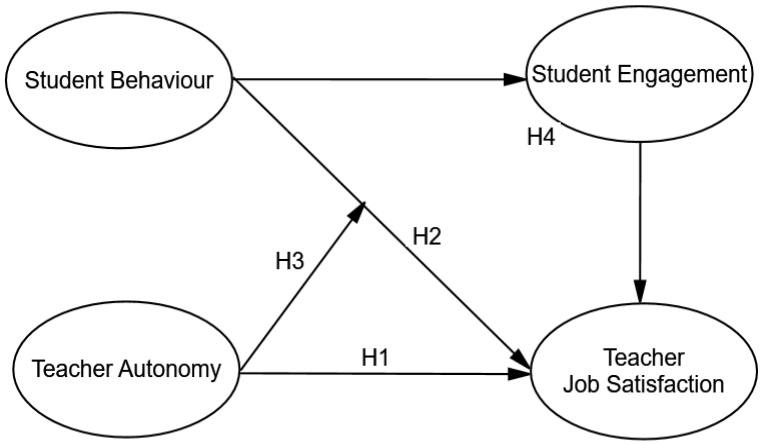



**Figure 1.** *Conceptual model*

## Methods

### Participants

Based on the report published by the Ministry of Education (2017), 241,591 teachers were working in 10,194 schools within 95 educational zones in Sri Lanka. A sample of 847 teachers was randomly selected from conveniently chosen 123 schools. Data for the present study was drawn from 703 participants. The respondents were 63.7% males ($n$ = 448) and 36.3% females ($n$ = 255). Most of the teachers were young (73.7% had less than 40 years) and 77.5% were married. On average, the majority held at least a bachelor's degree ($n$ = 430), and over 10 years of teaching experience ($n$ = 388).

### Instruments

Student behavior was measured using a 4-item scale adopted from Caprara et al. (2003). In concordance with many studies, the student behavior was gauged from teacher perception (e.g., Ding et al., 2008). A sample item is "The students respect the environment and are well-mannered towards others". Respondents were asked to indicate their agreeableness on each statement with a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Cronbach's alpha for student behavior was .85 indicating strong reliability of the scale employed.

Teacher autonomy was measured using a 3-item scale adopted from Skaalvik and Skaalvik (2010). A sample item is "I feel that I can influence my working condition". Items were measured on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Cronbach's alpha for teacher autonomy was .70 indicating acceptable reliability of the measure.

Student engagement was measured using a 3-item scale designed by Thornberry et al. (1991). The same scale has been recently employed by Konold et al. (2014). A sample item is "Students usually finish their homework". Items were measured using a 5-point Likert scale with response choices ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Cronbach's alpha for student engagement was .71 indicating acceptable reliability of the measure.

Job satisfaction was measured using the *Michigan Organizational Assessment Questionnaire* (Cammann et al., 1979). The scale consists of three items. A sample item includes "All in all I am satisfied with my job". Items were measured using a 5-point Likert scale with response choices ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Recently, the scale's reliability and construct validity were

confirmed by Bowling and Hammond (2008). Cronbach's alpha for the present study was .84 indicating strong reliability of the scale employed.

### Procedure

For examining the proposed hypotheses, data were collected from teachers working in state schools from Sri Lanka. The researcher and his three assistants distributed a total of 847 questionnaires and out of those distributed, 746 were returned yielding a response rate of 88%. Of the returned questionnaires, 43 partly filled in questionnaires were discarded and eventually, 703 were used in this study. Notably, for reducing common method variance (CMV), as suggested by Podsakoff et al. (2003), procedural remedies were initially followed in data collection process: clear instruction of the purpose of the research and the need for true information was provided, ensured anonymity and confidentiality, and adopted anonymous returns in data collection.

### Data Analysis

Research objective and the hypotheses are prediction orientated. Consequently, the present study employs a highly recommended partial least squares based structural equation modelling that has greater statistical power than covariance-based structural equation modelling (CB-SEM) (Hair et al., 2016; Hair et al., 2013; Hair et al., 2011; Hair et al., 2014). On the same footing, as can be seen in Figure 1, the conceptual model is somewhat complex testing both mediating and moderating effects, and thus, the use of PLS-SEM is most advisable (Hair et al., 2016). To run the model SmartPLS 3.0 software was used.

The study satisfies the minimum sample requirement, called "10 times rule" meaning that sample size should be ten times the maximum number of arrows pointing dependent variable. In the present study, minimum sample requirement is 30, however, in accordance with a statistical power of 80%, the recommended sample size is 176 for detecting at least $R^2$ value of .10 with a 1% probability of error (see Hair et al., 2016).

Since all variables used in this study were measured using scales that were developed in different cultural contexts, a confirmatory factor analysis (CFA) was employed with CB-SEM approach as recommended by Hair et al. (2016) and Hair et al. (2011). In addition, owing to the adoption of a single-sourced self-administrated questionnaire, there may be a portent of CMV (Podsakoff et al., 2003), and consequently, the most popular Harman's one-factor test was used (Podsakoff et al., 2003).

## Results

As discussed earlier, at the outset, Harman's one-factor test was performed to see CMV as a matter of influence in the dataset. The results reveal a four-factor solution in which the first factor accounted for 38.23% of variance explaining no evidence of substantial CMV. Further, the single factor shows a poor model fit: $\chi^2$ (65) = 1374.16, $p < .001$; *CFI* = .65; *GFI* = .73; *TLI* = .58; *RMSEA* = .17; *SRMR* = .11. Therefore, it can be concluded that CMV is not a serious problem in the current study. In the next stage, before conducting PLS-SEM, an integrated CFA was performed to assure reliability and the validity of the scale used in this study. The results show a good fit model: $\chi^2$ (59) = 113.87, $p < .001$; *CFI* = .94; *GFI* = .95; *TLI* = .93; *RMSEA* = .07; *SRMR* = .04.

As can be seen in Table 1, composite reliability (CR) for each construct is greater than .70 indicating higher levels of internal consistency reliability. The results also disclose a higher level of convergent validity: Average Variance Extracted (AVE) is greater than the minimum threshold of .5 and outer loading for each indicator is also greater than .70 (indicators' outer loadings ranging from .74 to .88, see Figure 2).

**Table 1**. *Average variance extracted, composite reliability and Fornell-Larcker criterion*

| *Variable* | *AVE* | *CR* | *Student behavior* | *Student engagement* | *Teacher autonomy* | *Teacher job satisfaction* |
|---|---|---|---|---|---|---|
| Student behavior | .69 | .90 | (.83) | | | |
| Student engagement | .63 | .83 | .39 | (.79) | | |
| Teacher autonomy | .61 | .82 | .56 | .32 | (.78) | |
| Teacher job satisfaction | .76 | .90 | .42 | .44 | .32 | (.87) |

*Note.* AVE - Average Variance Extracted; CR - Composite Reliability; Square root of AVE in parenthesis

Finally, discriminant validity was examined by two classic approaches, out loadings and Fornell-Larcker criterion. The results show outer loadings on each construct are higher than cross-loadings and the square root of the AVEs on each construct is greater than its highest correlation with any other construct (the highest correlation is .56). In addition to those two classic approaches, the heterotrait-monotrait ratio of correlations (HTMT) was performed. The HTMT ratios are well below .85 (ranging from .42 to .73). Consequently, the results confirm a strong discriminant validity of the model.

Next, multicollinearity between predictors has been assessed since it potentially influence the estimation. The highest outer variance inflation factor (VIF) is 2.3 (and the tolerance is .43) and inner VIF is 1.56 (and the tolerance is .64) satisfying the rule of thumb: the tolerance value should be greater than .20 and the VIF should be less than 5. In addition, as can be seen in Table 2, the highest correlation found between *Teacher autonomy* and *Student behavior* ($r = .57$, $p < .01$) is well below .70. Therefore, there is no evidence of multicollinearity.

Table 2 depicts the mean, standard deviation, and bivariate correlations.

**Table 2**. *Means, standard deviations, scale alphas, and bivariate correlations*

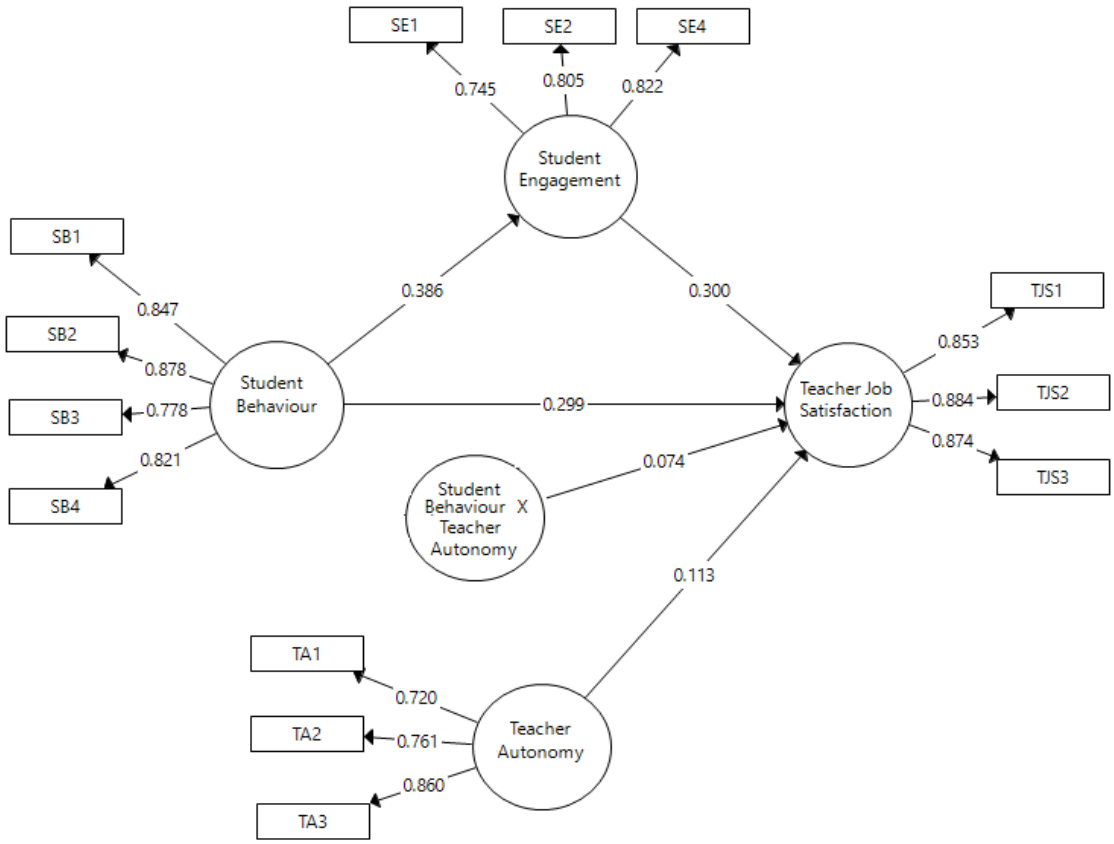
| *Variable* | *M* | *SD* | *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.Gender | 0.64 | 0.48 | - | | | | | | | | |
| 2. Marital status | 1.78 | 0.42 | .13** | - | | | | | | | |
| 3. Educational qualification | 1.39 | 0.49 | -.02 | -.10* | - | | | | | | |
| 4. Age | 1.26 | 0.44 | .18** | .24** | -.05 | - | | | | | |
| 5. Work experience | 1.55 | 0.50 | -.03 | .23** | .01 | .23** | - | | | | |
| 6. Teacher autonomy | 3.58 | 0.64 | -.01 | -.02 | .07 | .01 | -.07 | (.70) | | | |
| 7. Student behavior | 3.68 | 0.62 | .04 | .12** | -.02 | .11** | .12** | .57** | (.85) | | |
| 8. Student engagement | 3.83 | 0.55 | .02 | .07 | .07 | .02 | .02 | .31** | .39** | (.71) | |
| 9. Teacher job satisfaction | 3.97 | 0.52 | .05 | .03 | .02 | .01 | .04 | .32** | .42** | .43** | (.84) |

*Note.* $N = 703$; M = Mean; SD = Standard Deviation; Cronbach's α in parenthesis; Gender: 0-Female, 1-Male; Marital status: 1 = Single, 2 = Married; Educational qualification: 1= Degree holder, 2= Non -degree holder; Age: 1 = < 40 years, 2 = > 40 years; Experience: 1 = < 10 years, 2 = > 10 years. $^{*}p < .05$; $^{**}p < .01$.

As shown in Table 2, teachers report a higher level of job satisfaction ($M = 3.97$, $SD = 0.52$), and a reasonable amount of autonomy ($M = 3.58$, $SD = 0.64$). Teachers almost agreed that the students show good behavior ($M = 3.68$, $SD = 0.62$) and reasonably *Student engagement* on their learning ($M = 3.83$, $SD = 0.55$). As expected, *Teacher job satisfaction* shows a positive significant association with independent variables: *Student behavior* ($r = .42$, $p < .01$), *Student engagement* ($r = .43$, $p < .01$), and *Teacher autonomy* ($r = .32$, $p < .01$).

As can be seen in Figure 2, *Teacher autonomy, Student behavior* and *Student engagement* accounted for 27.6% of variance in *Teacher job satisfaction* and the predictive relevance $Q^2$ for *Teacher job satisfaction*

is larger than zero (.19, medium-sized effect) that indicates those three variables have the capacity to predict *Teacher job satisfaction*. *Student behavior* explains 14.9% of variance in *Student engagement* and its predictive relevance $Q^2$ is .09 (small-medium sized effect) explaining the capability of *Student behavior* in predicting *Student engagement.* Next, the formulated hypotheses were tested with path coefficient using 5000 subsamples bootstrapping (see Figure 2).




SRMR = .05, $RMS_{theta}$= 0.10, NFI = .91

**Figure 2.** *The relationships among student behavior, student engagement, teacher autonomy and teacher job satisfaction*

The hypothesis 1 that predicted that there is a significant positive relationship between *Teacher autonomy* and *Teacher job satisfaction* was supported. The path coefficient between *Teacher autonomy* and *Teacher job satisfaction* is significantly positive ($\beta = 0.11$, $t = 2.26$, $p < .05$) implying that *Teacher autonomy* increases *Teacher job satisfaction*. Nonetheless, the value of $f^2$ is .02 indicating a small-sized effect. The hypothesis 2 that surmised that there is a significant positive relationship between *Student good behavior* and *Teacher job satisfaction* was also supported: the path coefficient between *Student good behavior* and *Teacher job satisfaction* is significant ($\beta = 0.30$, $t = 5.44$, $p < .001$) and the $f^2$ is .05 (small-medium-sized effect). The results imply that the higher the level of *Student behavior*, the higher the level of *Teacher job satisfaction*. Next, hypothesis 3 proposes *Teacher autonomy* as a moderator in explaining the relationship between *Student behavior* and *Teacher satisfaction* such the positive relationship between *Student behavior*

and *Teacher satisfaction* will be stronger at a high level of *Teacher autonomy*. To test the hypothesis, since the sample size is medium to large, product indicator method was used. The path coefficient of the interaction term (*Student behavior* x *Teacher autonomy*) is positively significant (β = 0.07, *t* = 2.35, *p* < .05) implying that *Teacher autonomy* strengthens the positive relationship between *Student behavior* and *Teacher satisfaction* (see Figure 3). The interaction term (*Student behavior* x *Teacher autonomy*) has a small-sized effect ($f^2$ = .02). However, even 1% of variance explained by interaction term should be considered as important. The nature of the moderating effect is depicted in Figure 3.

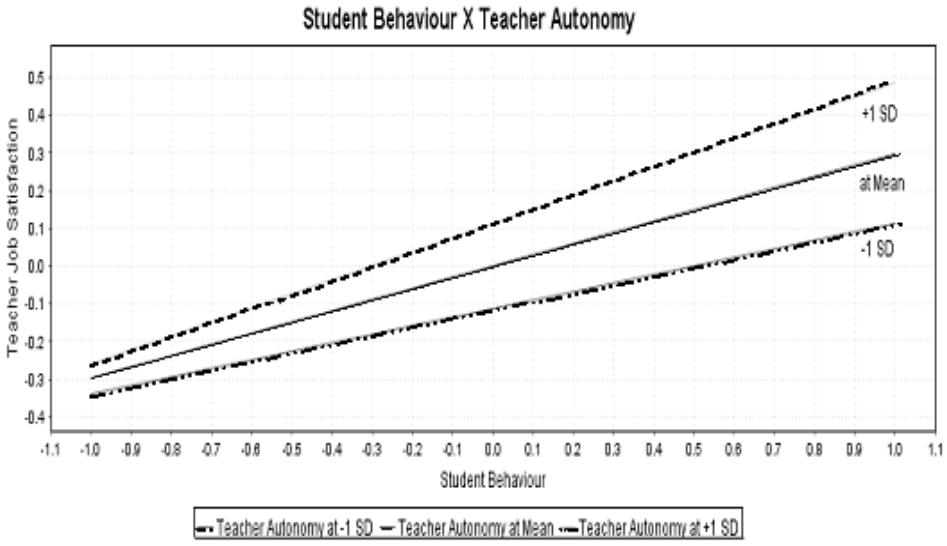



**Figure 3**. *Moderating effect of teacher autonomy between student behavior and teacher job satisfaction*

For the hypothesis 3 that predicted that *Student engagement* mediates the relationship between *Student behavior* and *Teacher job satisfaction*, the path coefficients are as follows: (i) the direct path coefficient between *Student behavior* and *Teacher satisfaction* without the mediator was β = 0.41, *t* = 7.52, *p* < .001; (ii) between *Student behavior* and *Teacher satisfaction* with mediator was β = 0.30, *t* = 5.47, *p* < .001; (iii) between *Student behavior* and *Student engagement* was β = 0.39, *t* = 7.10, *p* < .001; and (iv) between *Student engagement* and *Teacher job satisfaction* was β = 0.30, *t* = 6.77, *p* < .001. The indirect effect of *Student behavior → Student engagement→ Teacher job satisfaction* with 5000 bootstrap samples was β = 0.12, *t* = 4.74, *p* < .001, 95% CI (.07, .17). The Sobel test statistic was 4.85 (*p* < .001). As noted above, the strength of the path coefficient between (i) and (ii) has reduced but it was still significant. Consequently, it can be concluded that *Student engagement* partially mediates the relationship between *Student behavior* and *Teacher satisfaction*. For robustness, the variance accounted for (VAF) that explains the size of the indirect effect corresponding to the total effect was calculated. The value of VAF above 80% is a full mediation and the value between 20% to 80% is a partial mediation and less than 20% indicates no mediation (Hair et al., 2016). The total effect combines the direct effect (.30) and indirect effect (.12). The value of VAF was 28.57% (.12/.42) evidencing the partial mediation.

In advance of PLS-SEM approach, an importance - performance matrix analysis (IPMA) was then performed (see Table 3) to highlight the significant areas for improvement based on structural model total effect (importance) and the average value of the latent variable scores (performance) (Hair et al., 2016).

**Table 3.** *Data of the IPMA path model-focusing on improvement and performance of the variables*

| | *Exogenous construct* | *Importance* | *Performance* | *Improvement* |
|---|---|---|---|---|
| Endogenous-Teacher job satisfaction | Student behavior | 0.34 | 66.94 | 33.06 |
| | Student engagement | 0.28 | 70.82 | 29.18 |
| | Teacher autonomy | 0.10 | 60.28 | 39.72 |

As can be seen in Table 3, of the three variables, *Student behavior* has the greatest importance, followed by *Student engagement* and *Teacher autonomy*. Nonetheless, *Student engagement* shows the highest level of performance, followed by *Student behavior* and *Teacher autonomy*. The possibility for the improvement for each construct is around 30%.

## Discussion

The present study established a set of relationships among teacher autonomy, student behavior, student engagement, and teacher job satisfaction based on the data gleaned from 703 teachers in state schools from Sri Lanka. First, drawing on self-determination theory, the present study postulated a thesis that teacher autonomy augments the level of teacher job satisfaction was confirmed and the findings are in line with some previous studies (e.g., Skaalvik & Skaalvik, 2014). Therefore, the corollary of a greater feeling of control among the teachers over many aspects in contexts of schools such as freedom to choose teaching methods and strategies, making classroom decisions, makes them feel a sense of exaltation on their jobs.

Based on robust findings, the present study averred a significant positive effect of student good behavior on teacher job satisfaction. Since the perceptions of students' misbehaviors are subject to country-culture specific nature (Ding et al., 2008), the present study underscores its uniqueness. The finding articulates that students' good behaviors are the fertile grounds for teacher job satisfaction. This may be due to the fact that students' misbehaviors such as disobedience, aggression towards the teacher, fighting, bullying, physical aggression towards other students, coming to class unprepared, interrupting other students, verbal abuse towards other students, use of mobile phones, cheating, making unusual noises, hostile might dissatisfy teachers. Taken together with the earlier studies, the relationship between student behavior and teacher job satisfaction has not been built. Notwithstanding, the findings are reflective of some other similar studies as Aldrup et al.'s (2018) student misbehaviors and teacher well-being, Lewis et al.'s (2005) student misbehaviors and teachers' stress, and Caprara et al.'s (2003) principal and colleague behaviors and teacher job satisfaction.

In addition, the current study found teacher autonomy as a moderator of the relationship between student behavior on teacher job satisfaction. The novel finding was supported by the JD-R model (Bakker & Demerouti, 2007). Most notably, the study established the dual role of autonomy in explaining teacher job satisfaction that has been overlooked in the earlier works. The finding signifies that students' misbehaviors can be modified when the autonomy, that provides freedom and volition that makes teachers more responsible for good practice (Skaalvik & Skaalvik, 2014), is empowered. Therefore, the relationship between student acceptable behavior and teacher job satisfaction is stronger at a high level of teacher autonomy than at a low level. Further, the present study confirms the effect of student behavior on teacher job satisfaction through student engagement. The finding is in alignment with Astin's theory of student involvement. For instance, students' disruptive behaviors are detrimental to the students' engagement in the classroom thereby reducing students' academic achievement. Therefore, such a devastating school climate makes teachers feel unhappier.

## Theoretical and Practical Implications

The present study has made many theoretical and practical implications. The present study contributes to the extant literature in education by confirming the relationship between teacher autonomy and teacher job satisfaction. Therefore, the study responds to the criticism in the application of the Western findings in another cultural context and espouses in arriving general conclusion in which findings of some earlier studies are conflicting (see Pearson & Moomaw, 2005). In addition, to the best of my knowledge, this is the first study that has explored the relationship between them in Sri Lankan context that extends country-specific contribution. The finding provides the useful practical implication that policymakers, principals, and other controlling bodies should think of giving autonomy for enhancing teacher job satisfaction that brings many favorable outcomes to the school constituencies. The study suggests that 40% of improvement can be made in teacher autonomy.

The novel finding - the effect of student behavior on teacher job satisfaction with a moderating role of teacher autonomy - is another major contribution that the current study made. The propositions made in the study are strongly based on the confluence of the JD-R model and the job characteristics theory, nonetheless, previous studies have been hitherto neglected such the nexus between student behavior, teacher autonomy and teacher job satisfaction. The findings acknowledge several useful practical implications as well. The strong positive relationship between student behavior and teacher job satisfaction implies the importance of maintaining students' acceptable behaviors in schools. The school administration should also devise and strictly implement the policies, called "best code of practice" as for stopping deviant behaviors of the students. The study lucidly shows that student behavior is the most "important" variable contributing to teacher job satisfaction and there is a room for 33% of improvement in student behavior.

The study made another unique contribution to the existing literature by unearthing a mediating relationship between student behavior and teacher job satisfaction through student engagement. The current study invoked Astin's theory of student involvement to support the notion. Surprisingly, a large corpus of earlier studies has not heretofore explored such mediating relationship. Rather those studies have focused on the student-related antecedents with student-related outcomes. The findings underscore the importance of student behavior on a higher level of student engagement that has been related to academic performance (see Balwant, 2018; Fisher et al., 2018; Kahu, 2013; Simpson & Burnett, 2017). Therefore, as discussed earlier, those empowered in making disciplinary policies and responsible for their effective implementation should find ways to shape students' good behaviors. Results also showed the importance of student engagement and highlighted 29% of possibilities in its improvement.

Lastly, it is also vital to emphasize the methodological contribution that the study made. The study confirms the psychometric properties of the scales developed in different cultural contexts and thus responds to the criticism of those scales' applicability in dissimilar cultural contexts. Therefore, future researchers can use the scales without any caveats.

## Limitations and Future Studies

A number of limitations that the study suffered should be acknowledged. The major limitation of the study was the cross-sectional design. Using a cross-sectional design, it is difficult to make a firm conclusion as for causal relationships and thus longitudinal studies are warranted. In addition, since the study completely relies on single-source and self-report measure, there might be some concerns in generalizing the findings. Despite the study confirmed no portent of CMV, future studies should focus on a time-lagged approach with multi-source data collection methods to make firm a conclusion. The present study considered only the cognitive engagement of the students from the teachers' perception. Therefore, the possible extensions of this study could be to replicate our findings from multi-level analysis with multi-

facets of students' engagement. Although many studies have investigated a set of inappropriate behaviors among the students across several countries during the last five decades (e.g., Aldrup et al., 2018; Ding et al., 2008; Jones et al., 1995; Kyriacou & Sutcliffe, 1978; Merrett & Wheldall, 1984), in some countries students' misbehaviors have not been addressed, like Sri Lanka. Since students' behaviors are subject to cultural perceptions (Ding et al., 2008), future studies should identify socially not appropriate behaviors among students in countries where studies are far less focused. External factors such as national educational policy, educational system, culture, and other macro-environmental factors that have potential influences on teacher job satisfaction should be investigated in future. Lastly, the psychological reasons behind students' misbehavior should be examined (see Ding et al., 2008).

On balance, strongly based on the robust theoretical and empirical evidence, the present study makes theoretical and practical contributions to the frontiers of literature in education by establishing connections between teacher autonomy, student behavior, student engagement and teacher job satisfaction.

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