Interdisciplinary Research Review
Volume 16, Number 6, Pages 30 – 37

The contribution of emotional intelligence to academic engagement of undergraduate students in Thailand: the mediating role of self–efficacy

Jenette Villegas–Puyod[1,*], Tipnuch Phungsoonthorn[2], Phichitphol Sitthipo[3], and Wissawa Aunyawong[4]

[1]**Department of Entrepreneurship and Innovation Management, Assumption University, Samut Prakan, Thailand**

[2]**Business and General Education Center, Dusit Thani College, Bangkok, Thailand**

[3]**Faculty of Business and Technology, Stamford International University, Bangkok, Thailand**

[4]**College of Logistics and Supply Chain, Suan Sunandha Rajabhat University, Bangkok, Thailand**

Abstract

This paper explores the personal qualities of university students that influence their academic engagement in class. Class participation is evidently crucial, through which students' abilities can be assessed. This examined the roles of emotional intelligence (EQ) and self–efficacy on the academic engagement of undergraduate students in Thailand. The university students' self–efficacy is proposed to act as the mediator of the direct linkage concerning EQ and academic engagement. A self–administered survey questionnaire was utilized and the respondents were college students from a private university in Thailand (N= 395). Data were analyzed by the Partial Least Squares Structural Equation Modeling. The study findings supported that EQ has a positive influence on self–efficacy and academic engagement. Furthermore, the study showed that university students' self–efficacy is contributed to academic engagement. Self–efficacy of undergraduate students in the university mediated the positive association between EQ and academic engagement. Given that there were mixed findings on the influence of EQ on academic engagement, this research provides evidence that EQ is a significant factor contributing to the academic engagement of undergraduate students.

Keywords: Emotional intelligence, academic engagement, self–efficacy

Article history: Received 23 September 2021, Revised 29 November 2021, Accepted 30 November 2021

1. Introduction

The goal of each university is to improve their students' experience during their stay in their premises. One way to help students increase their university experiences is their academic engagement. Additionally, one of the main criteria to assess the effectiveness of the educational establishments is the level of students' engagement and is considered to be one of the main purposes for every educational institution [1]. Scholars refer to academic engagement as engaging students in various academic and non–academic activities such as class presence, assignment submission, interaction with other students and lecturers, and involvement in extra–curricular activities [2, 3]. Scholars suggest that student disengagement can be a huge challenge for institutions because it leads to behavior problems and potential dropouts [4]. Because academic engagement is a vital aspect that contributes to the overall success of students, understanding the antecedents associated with academic engagement remains significant.

Academic engagement denotes the connection of the students throughout the learning process. Thus, lack of academic engagement in the classroom needs to be addressed as students in the class are described to be low achievers, experienced boredom, and eventually dropped in their respective classes. Given the harmful consequences of lower academic engagement among university students in Thailand, it is important to recognize some personal qualities of students that might prevent them from experiencing these consequences in the university setting. This study proposed that emotional intelligence (EQ) is one characteristic of a student that has been regularly being studied that helps students manage their academic stress in class.

EQ is associated with students' academic achievement improvement, social behaviors, lesser distress, and good evaluations. In addition, students with high emotional competency had greater academic goals, a higher level of motivation, self–discipline, and stress

*Corresponding author; email: jvillegas@au.edu

control. They learn more, hence get high grades [5]. Another factor that may help students enhance academic engagement is self–efficacy. It is important that students know how to evaluate their capacities and meet certain requirements in the academic setting [6]. Previous research claimed that self–efficacy influences students' performance and participation in activities. Furthermore, since self–efficacy also offers more personal resources, good academic performance will be achieved [7].

2. Research Objectives and Contribution

Thus, the primary goal of this study is to explore the personal qualities of students which influence their academic engagement. In this paper, the roles of EQ and self–efficacy on academic engagement of undergraduate students in Thailand were examined. It is proposed that the direct linkage between EQ and academic engagement might be mediated by the students' self–efficacy.

This research contributes further data to EQ studies on academic engagement. Even though research showed that academic engagement can be influenced by students' EQ, there is no consensus on the finding whether the level of students' EQ can lead to better engagement [19]. This study can add more evidences to this area. Furthermore, given that prior research exploring the role of self–efficacy as a mediator on the association between EQ and academic engagement is still scant, this research will fill this gap.

3. Literature and Hypotheses

3.1 Academic Engagement

Academic engagement is a concept that had been studied extensively which refers to the level to which students devote their resources such as time and energy in academic activities and the level of their willingness to study during their university life [2], [8]. [9] suggest that academic engagement has three aspects: vigor, dedication, and absorption. Firstly, vigor is the level of individual energy, psychological flexibility, and determination to put the effort into his/her studies. Secondly, dedication refers to the feeling of importance, eagerness, motivation, satisfaction, and confrontation. Lastly, absorption refers to the situation when an individual is completely focused and contentedly engaged in his/her study without realizing that time has gone by [10]. In total, students involved in learning activities are motivated to put effort and dedication into their tasks with full concentration. On the other hand, some scholars posit academic engagement as comprising the following dimensions: behavioral engagement, emotional engagement, and cognitive engagement [2], [11]. Firstly, behavioral engagement denotes the level to which students participate in their learning [12]. Secondly, emotional engagement is described as the feeling of students toward teachers, friends, studying, and institutions.

Previous literatures support that academic engagement enhances academic success [4], [13]. For example, [14] reported that academic engagement is the predictor of academic achievement of students in the Dominican Republic. Researches support that academic engagement is influenced by various contextual elements such as the lecturer's teaching style, classroom setting, and interaction with friends [15]. This study proposes that the individual factor may also influence the students' academic engagement.

3.2 Emotional Intelligence

Emotional intelligence (EQ) was defined as the capability to recognize, observe and understand one's feelings and emotions and that of others [20]. This ability also incorporates utilizing this emotional understanding to make decisions, solve problems, and communicate with other people. A person who possesses a higher level of EQ recognizes themselves extremely well and can readily sense others' emotions. They have the characteristics of being sociable, resilient, and optimistic [21]. A growing body of research has found EQ tended to be a decent predictor of work performance ranging from interns to managers, psychological well–being, and academic performance [16–19]. Consequently, these notable contributions in different fields highlighted EQ as one of the integral factors to help people in different walks of life deal with matters effectively with several life- and job–related stressors.

EQ has four branches. These are perceiving emotion, use of emotion to facilitate thought, understanding emotion, and managing emotion [20]. Perceiving emotions is the capability to distinguish and recognize sentiments in oneself and others. People who are versed in this area are often delighted to discover their emotional conditions and will progress through it in dealing with situations. Second, the use of emotion to facilitate thought or the thought facilitation branch is concerned with one's ability to engender emotion, then use this feeling to reason out [20]. Third, understanding emotions refers to the person's ability to understand intricate emotions and emotional chains. Fourth, managing emotions is an individual's capability to manage and control feelings towards oneself and others [20]. Managing emotions refers to the ability of an individual to observe, classify, and label his feelings in an accurate manner, and know what to do to enhance or adjust these moods.

3.3 EQ and Academic Engagement

EQ helps in prioritizing intellectual thinking and enables one to manage emotions in anxiety-provoking circumstances, for instance taking any kind of tests in the academic field [21]. It has been shown that students who are more emotionally intelligent performed

better, both in continuous assessments and in the final professional examination. Hence, it is probable that developing emotional skills may enhance the academic engagement of students [22]. How students' EQ can help him/her learn better and perform academically is an interest of many researchers. One research claimed the importance of EQ in the personal health and college success of students. Students with higher EQ are able to cope better with complex and demanding college life.

Students who can focus on their learning and perform in their academics are able to succeed in the academe [23]. However, research findings related to the role of EQ in academic settings were mixed. Some previous researches showed a positive association [21, 22], [24–26], while others show that EQ has no direct relationship at all to academic engagement [27–30]. For instance, it was found that the overall EQ scores and academic engagement of first-year community students in the US have no apparent relationship [29]. Emotionally intelligent students have healthier interpersonal and intrapersonal skills, they are more malleable, good at stress management, and most likely to perform academically. Moreover, a student with self–awareness particularly being confident in engaging inside and outside the classroom activities is most likely succeeded in school [26].

H 1: The EQ of undergraduate students is positively associated with academic engagement.

3.4 EQ and Self–efficacy

Self–efficacy is defined as a belief that one is capable to succeed in facing different challenges in life with full motivation, acquired intelligence, experience, and actions [31]. Over the years, self–efficacy got a positive perception and association with individual performance improvement in various areas such as sales, retail industry, job performance, and academic performance [32, 33]. For instance, self–efficacy was considered a factor in university students' academic performance. The research posited that academic self–efficacy had a direct relationship with academic performance [34]. This means that students who get into university and they are fully prepared and generally confident of their abilities will perform academically well than their weaker counterparts. They have the drive and motivation to achieve better as they are intrinsically self–sufficient. Furthermore, students demonstrating a high level of self–efficacy are motivated to feel confident to know and learn information and do well in the exam [35].

Social cognitive theory characterized self–efficacy as self-regulation of capability. The social cognitive theory proposes that a person holds principles about their ability to accomplish things by their own actions [36]. Self–efficacy can be developed through observation with colleagues who were good models on how to achieve goals including a range of previous successful endeavors to achieve challenging goals [37]. The research found that there is a high correlation between initial levels of emotional stability and self–efficacy beliefs [38]. An optimistic type of individual tended to have strong control of their emotions, therefore, not affected by negative feelings and self–efficacy tended to be higher. Self–awareness and self–regulation were critical factors of EQ. Therefore, EQ was an important component that contributed to the formation of self–efficacy through self-awareness and self–regulation of emotion. Previous researches found that a person with a higher level of EQ tended to boost his/her self–efficacy by possessing profound awareness of his/her emotional state and by controlling it directly [39, 40]. From the above premise, the following hypothesis is proposed.

H2: The EQ of undergraduate students has a positive association with self–efficacy.

3.5 Self–efficacy and Academic Engagement

According to [6], self–efficacy influences persons' choice of actions, determination, and perseverance. Consistently, there is research that supports the association between student self–efficacy and academic–related tasks [41]. Hence, self–efficacy may be one of the predictors in motivating students to put the effort into their learning activities. Because the high self–efficacy students have high self-confidence and believe in their capability, they tend to be encouraged to put their effort and concentration into their studies [42]. Consistently, [43] state that when students got a higher level of self–efficacy, they also put more effort and have higher participation in the classroom, thus; they can perform better in exams. Moreover, research also supported the role of self–efficacy as the antecedent of academic engagement [42], [44]. Given the aforementioned reasons, the following hypothesis is presented:

H3: The self–efficacy of undergraduate students has a positive relation to academic engagement.

3.6 Mediating Role of self–efficacy

Although EQ is reasonably linked to academic engagement, this association can be indirectly described by the students' level of self–efficacy, who have higher EQ. This research suggests that the linkage between EQ and academic engagement can be mediated by the students' level of self–efficacy. Because students with high EQ tend to be more successful in overcoming fear and failure about their academic intentions, then EQ might as well be a predictor of self–efficacy which in turn leads to better academic engagement. As self–efficacious students tend to believe what they are capable of achieving their academic goals, it could then be argued that students who got a higher level of EQ would be able to control negative emotions such as fear and anxiety in dealing with their classroom tasks. Hence, as a result, it is predicted that academic engagement is strengthened. Taken together, this study proposes the following hypothesis:

H4: The self–efficacy of undergraduate students mediates the positive association between EQ and academic engagement.

4. Methods

4.1 Sample and Data Collection Procedure

This study collected data from the international university in Thailand as there are many foreign students from different countries, therefore the degree of students' engagement in the classroom is different due to mixed cultures in the classroom. In particular, students may not be comfortable engaging in the class as their culture is demure, in contrast, they may highly engage in class as their normal practice in their home country where they belong. Therefore, the teachers are interested to find out how EQ and self–efficacy could help students interact and participate in the class. University students who are enrolled in the international university served as a sampling frame for data collection. Approximately, there were five thousand students who were currently enrolled in the university. Students were asked for voluntary participation in the research survey, whenever students did not want to participate then they were free to do so.

Data collection employed an online survey questionnaire allowing 600 students to answer the survey via a link and a QR code at their convenience. But they were informed beforehand on the research goals, along with the assurance of the confidentiality and anonymity of the data collected. After one month of data collection, 395 usable responses were gathered, accounting for 65.8% percent response rate. Table 1 presents the respondents' demographic profiles.

5. Measures

A brief version 10–item self–reported EQ scale adapted from [56] was used to measure EQ. A 5–point Likert scale was employed with 1 (Strongly disagree) to 5 (Strongly agree). Furthermore, measurement of academic engagement adapted the scale from [45] consisting of seventeen questions. All items were measured using a 5-point Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly agree).

Six demographic control variables were used, which were age, sex, GPA, faculty, language, and educational level. These factors tend to determine the level of outcome variables used specifically in self–efficacy and academic engagement. Age was measured in years, while sex was measured as a dummy variable with codes 0 and 1 for female and male; respectively. Faculty and language were measured by nominal, and educational level was measured ordinally.

5.1 Control Variables

This paper considered some of the demographic factors and academic characteristics of the students as control variables, namely age, gender, GPA, faculty, language, and educational level. Age was measured as actual age in the years; gender was measured as a categorical variable (Female= 0, Male= 1); GPA was measured with the actual grade, language was measured as a ranked variable (1–Thai, 16- Dutch in sequence as shown in Table 1); and educational level was measured as a categorical variable (First year = 1; Second year = 2; Third year= 3; Fourth year= 4).

5.2 Data Analysis Method

For data analysis, the statistical tool used was the Partial Least Squares Structural Equation Modeling (PLS–SEM). PLS–SEM is the method that combines principal component analysis, a series of regression analysis, and path analysis [46]. PLS–SEM is more suitable as it allows small sample sizes and is more effective whenever the data is in non-normal distribution [47]. WarpPLS version 7.0. was utilized in the PLS estimation.

6. Results

Tests for the reliability and validity were conducted prior to performing the PLS model because the main constructs were measured as reflective latent variables. The conduct of the test for convergence validity to evaluate the factor loadings was done first. As advised by [48], a factor loading of more than the minimum requirement of 0.5 was given for every construct. This was followed by the test for discriminant validity through a comparison of the results of the square root of the AVE and the square of the correlation coefficient. The analysis demonstrated that the square root of the AVE was greater than that of other correlations, indicating that the level of discriminant validity was acceptable [49]. Table 2 shows the correlations among all of the variables in the model and the square root of the AVEs of all latent variables. Thereafter, the reliability test was performed using Cronbach's alpha and composite reliability coefficients. As Table 2 depicts, the reliability indicators of all latent variables surpassed the minimum requirement of 0.7 [50].

Lastly, in order to assess the multicollinearity problem, a full collinearity variance inflation factor (VIF) test was performed. [51] suggests that a full collinearity VIF test is more powerful than the traditional VIF test because it can evaluate simultaneously both the vertical and lateral collinearity. In addition, according to [52], the possibility of CMB in the PLS model can be measured from the full collinearity VIF test. The result of the full collinearity VIF for all constructs ranged from 1.090 to 1.976, which was lower than the critical value of 3.3 as suggested by [53].

Table 1. Descriptive statistics of the sample.

Demographic factor	Descriptive statistics
Sex	Male: 237 (60%) Female: 158 (40%)
Age	Mean: 22.52 S.D.: 2.495
Education Level	First year college: 80 (20.3%) Second year college: 156 (39.5%) Third year college: 62 (15.7%) Fourth year college: 97 (24.6%)
Cumulative GPA	: 1.55 Max: 4 Mean: 2.35 S.D.: 1.051
Language	Thai: 273 (69.01%) Chinese: 69 (17.5%) Korean: 13 (3.3%) Min Burmese: 13 (3.3%) Cambodian: 2 (.5%) Indian: 2 (.5%) Nepalese: 2 (.5%) Taiwanese: 6 (1.5%) Vietnamese: 5(1.3%) Filipino: 2 (.5%) Japanese: 2 (.5%) Cantonese: 1 (.3%) Pakistani: 1 (.3%) Laos: 2 (.5%) American: 1 (.3%) Dutch: 1 (.3%)

Table 2. Correlation among variables and square root of AVE.

time	Cronbach's alpha coefficient	Composite reliability coefficient	EQ	SE	AE	AGE	GEN	GPA	FAC	LANG	EDU
EQ	.858	.887	(.663)	.508**	.414**	-.006	-.077	-.017	-.090	-.006**	-.055
SE	.921	.935		(.803)	.624**	.011	-.012	.071	-.022*	-.006	-.020
AE	.942	.948			(.721)	.071	-.012	-.128**	-.149*	.122**	.040
AGE	-	-				(1)	-.105*	-.229**	-.140	-.074*	.595**
GEN	-	-					(1)	.212	-.063	.122	.022
GPA	-	-						(1)	.067	-.147	-.212
FAC	-	-							(1)	.062	-.286**
LANG	-	-								(1)	-.028**
EDU	-	-									(1)

Notes: *p–value <.05, ** p–value <.01;
The square root of AVE is displayed in the parentheses. EQ= emotional intelligence, AE= academic engagement, SE= self–efficacy, AGE= age, GEN= gender, GPA= grade point average, FAC= faculty, EDU= education.

Results of the PLS analysis are presented in Figure 1. Hypothesis 1 predicted that the EQ of undergraduate students is positively associated with academic engagement. The research finding demonstrated this positive relationship and was statistically significant ($\beta = 0.12$, p <.001), hence hypothesis 1 was supported. Furthermore, it was projected in hypothesis 2 that the EQ of undergraduate students is positively linked with self–efficacy. The results revealed a positive linkage between the EQ of undergraduate students and their self–efficacy, and it was also established to be statistically significant ($\beta = 0.50$, p <.001). Consequently, hypothesis 2 was also supported. Hypothesis 3 likewise predicted that the self–efficacy of undergraduate students is positively related to academic engagement. The findings demonstrated a positive linkage between these two constructs, and it was also statistically significant ($\beta = 0.55$, p <.001). Therefore hypothesis 3 was also supported.

Then, hypothesis 4 projected that the self–efficacy of undergraduate students mediates the positive linkage between EQ and academic engagement. The examination of mediating effect was measured by utilizing the estimation of the indirect effect as proposed

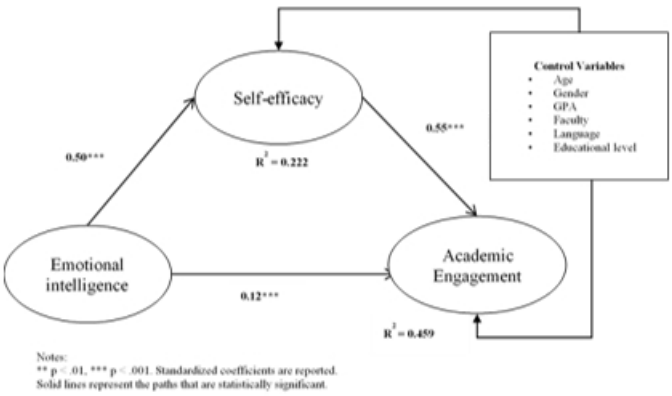

Figure 1: Tresults from hypotheses testing.

by Preacher and Hayes (54). The investigation was conducted using a bootstrapping method. The result supported the positive mediation of self–efficacy; this result showed that it was statistically significant (β = 0.034, p <.001). Hence, hypothesis 4 was supported.

According to the model, EQ has a direct effect on AE with a value of 0.12. Additionally, it was found that SE mediated the linkage between EQ and AE with a total value of 0.275. Despite all values being strongly significant, it can be concluded that the indirect effect is more powerful than the direct effect. Students with high EQ are able to regulate their emotions and focus more on engaging themselves in class. In addition, high EQ students who also have high SE tend to be more motivated to engage in class.

Regarding the control variables, age, and GPA were depicted to have a positive linkage with self–efficacy, while faculty, language, and education have a negative linkage with self–efficacy. Furthermore, age, language, and education positively linked with academic engagement while gender, GPA, and faculty were found negatively associated with academic engagement. In addition, language proficiency and GPA were reported to have a positive relationship with academic engagement and these were statistically supported. It implied that (1) students with high English proficiency tend to engage themselves more in class conducted in English language and [55] students with high GPA tend to be more motivated to engage more with their studies.

7. Discussion

General Discussion

This research examined the role of EQ and self–efficacy in predicting the academic engagement of undergraduate students in one international university in Thailand. Generally, the outcomes from the PLS supported all hypotheses. First, the results reported that students who possess high EQ tend to have engagement with their studies and are consistent with aforementioned findings that also supported the role of EQ [22]. Second, the analysis demonstrated a positive relationship between EQ and self–efficacy. This finding indicated that students who exhibit high EQ tend to have strong self–efficacy. This is also consistent with previous studies, stating that students having a higher level of self–efficacy are found emotionally intelligent and therefore confident to do well in terms of the academe [35]. Third, this research supported a positive association concerning self–efficacy and academic engagement, which implied that students who possess high self–efficacy tend to have strong academic engagement. This is also parallel with previous research where self–efficacy was reported to influence academic engagement [42]. In addition to the direct linkage between EQ and academic engagement, this study also found the association with these two constructs was mediated by the level of students' self–efficacy. This finding provided evidence supporting the notion that high EQ students who also possess strong self–efficacy are more likely to demonstrate strong academic engagement which is consistent with the previous study that EQ is positively associated with self–efficacy [38]. Furthermore, it claimed that self–efficacious students tend to engage themselves well in class and outside class activities [34].

Research Contribution This study provides a contribution to EQ studies. Given that there was a mixed finding on the influence of EQ on academic engagement, this research provides evidence that EQ is an important factor contributing to academic engagement of undergraduate students. The mediating role of self–efficacy also offered further understanding into some personal characteristics in which EQ's role can have more impact on student engagement in their studies.

Managerial Implications These research findings also provide a practical contribution to the university's authorities, lecturers, as well as students. The results of the study suggested a direct relationship between self–efficacy and academic engagement, that is; students with higher self–efficacy demonstrate better academic engagement. The academic staff should support students to build their self–efficacy by giving them

constructive feedback and encouragement. Moreover, the findings provide a significant contribution to previous EQ researches specifically on the mediating role of self–efficacy which was not explored extensively in prior researches.

Limitations and Future Research The first limitation of this research is that this study is only based on one international university in Thailand and does not represent the entire undergraduate students' population; hence the generalizability of the findings may be limited. Second, this research is the subjective bias on the respondents' part which can imperil the analysis of data collected through the survey questionnaire. Third, the study is conducted on a cross-sectional basis, therefore, the causality between the variables cannot be established.

It is suggested that further study should consider using a bigger sample size from more institutions in order to draw a significant contribution. It is also interesting to introduce some cultural variables to see if the culture has an impact on the students' EQ and academic engagement.

References

[1] S. Sharan, Tan IG-c. Organizing schools for productive learning: Springer,2008.

[2] J. A. Fredricks, P. C. Blumenfeld, A. H. Paris. School engagement: Potential of the concept, state of the evidence. Review of educational research. 74 (1) (2004) 59–109.

[3] K. L. Krause, H. Coates, Students' engagement in first–year university. Assessment & Evaluation in Higher Education. 33 (5) (2008) 493–505.

[4] N. Ozkal, Relationships between Self–Efficacy Beliefs, Engagement and Academic Performance in Math Lessons. Cypriot Journal of Educational Sciences. 14 (2) (2019) 190–200.

[5] A. Costa, L. Faria, The impact of emotional intelligence on academic achievement: A longitudinal study in Portuguese secondary school. Learning and Individual Differences. 37 (2015) 38–47.

[6] A. Bandura, Self–efficacy: toward a unifying theory of behavioral change. Psychological review. 84 (2) (1977) 191.

[7] P. Whannell, R. Whannell, B. Allen, Investigating the influence of teacher strategies on academic self–efficacy and study behaviour of students in a tertiary bridging program. Australian Journal of Adult Learning. 52 (1) (2012) 39.

[8] B. P. An, The role of academic motivation and engagement on the relationship between dual enrollment and academic performance. The Journal of Higher Education. 86 (1) (2015) 98

[9] W. B. Schaufeli, A. B. Bakker, Job demands, job resources, and their relationship with burnout and engagement: A multi–sample study. Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior. 25 (3) (2004) 293–315.

[10] W. B. Schaufeli, I. M. Martinez, A. M. Pinto, M. Salanova, A. B. Bakker, Burnout and engagement in university students: A cross–national study. Journal of cross–cultural psychology. 33 (5) (2002) 464–81.

[11] J. J. Appleton, S. L. Christenson, M. J. Furlong, Student engagement with school: Critical conceptual and methodological issues of the construct. Psychology in the Schools. 45 (5) (2008) 369–86.

[12] H. Lei, Y. Cui, W. Zhou, Relationships between student engagement and academic achievement: A meta-analysis. Social Behavior and Personality: an international journal. 46 (3) (2018) 517–28.

[13] K. Upadyaya, K. Salmela–Aro, Development of school engagement in association with academic success and well–being in varying social contexts: A review of empirical research. European Psychologist.18 (2) (2013) 136.

[14] J. M. Tomás, M. Gutiérrez, S. Georgieva, M. Hernández, The effects of self–efficacy, hope, and engagement on the academic achievement of secondary education in the Dominican Republic, 2020.

[15] E. Skinner, C. Furrer, G. Marchand, T. Kindermann, Engagement and disaffection in the classroom: Part of a larger motivational dynamic? Journal of educational psychology. 100 (4) (2008) 765.

[16] O. Serrat, Understanding and developing emotional intelligence. Knowledge solutions: Springer (2017) 329–39.

[17] A. A. Dimitrijević, Z. J. Marjanović, A. Dimitrijević, Whichever intelligence makes you happy: The role of academic, emotional, and practical abilities in predicting psychological well–being. Personality and Individual Differences. 132 (2018) 6–13.

[18] N. Libbrecht, F. Lievens, B. Carette, S. Côté, Emotional intelligence predicts success in medical school. Emotion. 14 (1) (2014) 64.

[19] J. Villegas–Puyod, P. Charoensukmongkol, Emotional Intelligence, Interaction Involvement, and Job Performance of Call Center Representatives in the Philippines. Human Behavior, Development and Society. 20 (2) (2019) 20–8.

[20] M. A. Brackett, P. Salovey, Measuring emotional intelligence with the mayer–salovery–caruso emotional intelligence test (MSCEIT).18 (2006) 34–41.

[21] M. A. Brackett, SE. Rivers, P. Salovey, Emotional intelligence: Implications for personal, social, academic, and workplace success. Social and Personality Psychology Compass. 5 (1) (2011) 88–103.

[22] B. H. Chew, A. M. Zain, F. Hassan, Emotional intelligence and academic performance in first and final year medical students: a cross–sectional study. BMC medical education. 13 (1) (2013) 44.

[23] M. U. Farooq, K. Riaz, C. Z. Javid, Impact of Emotional Intelligence on Academic Achievement of English Language Learners. Journal of Social Sciences & Humanities (1994–7046). 25 (2) (2017).

[24] R. Maguire, A. Egan, P. Hyland, P. Maguire, Engaging students emotionally: The role of emotional intelligence in predicting cognitive and affective engagement in higher education. Higher Education Research & Development. 36 (2) (2017) 343–57.

[25] G. Rupande, The impact of emotional intelligence on student learning. International Journal of Managerial Studies and Research. 3 (9) (2015) 133–6.

[26] M. A. M. Mohzan, N. Hassan, N. A. Halil, The influence of emotional intelligence on academic achievement. Procedia–Social and Behavioral Sciences. 90 (2013) 303–12.

[27] V. V. Jadhav, A. Patil, Emotional intelligence among student teacher in relation to general intelligence and academic achievement. Edutracks. 11 (8) (2010) 41–4.

[28] J. Noe, The Relationship between Principal's Emotional Intelligence Quotient, School Culture, and Student Achievement, 2012.

[29] R. Izaguirre, The relationship among emotional intelligence, academic achievement, and demographic characteristics in first–year community college students: University of the Incarnate Word, 2008.

[30] A. Lawrence, T. Deepa, Emotional Intelligence and Academic Achievement of High School Students in Kanyakumari District. Online submission. 3 (2) (2013) 101–7.

[31] T. Blomquist, A. D. Farashah, J. Thomas, Project management self–efficacy as a predictor of project performance: Constructing and validating a domain–specific scale. International Journal of Project Management. 34 (8) (2016) 1417–32.

[32] A. Rapp, T. L. Baker, D. G. Bachrach, J. Ogilvie, L. S. Beitelspacher, Perceived customer showrooming behavior and the effect on retail salesperson self–efficacy and performance. Journal of Retailing. 91 (2) (2015) 358–69.

[33] W. R. Carter, P. L. Nesbit, R. J. Badham, S. K. Parker, L–K. Sung, The effects of employee engagement and self–efficacy on job performance: a longitudinal field study. The international journal of human resource management. 29 (17) (2018) 2483–502.

[34] M. M. Chemers, L–t. Hu, B. F. Garcia, Academic self–efficacy and first year college student performance and adjustment. Journal of Educational psychology. 93 (1) (2001) 55.

[35] O. E. Hatlevik, I. Throndsen, M. Loi, G. B. Gudmundsdottir, Students' ICT self–efficacy and computer and information literacy: Determinants and relationships. Computers & Education. 118 (2018) 107–19.

[36] T. W. Ng, L. Lucianetti, Within–individual increases in innovative behavior and creative, persuasion, and change self–efficacy over time: A social-–cognitive theory perspective. Journal of Applied Psychology. 101 (1) (2016) 14.

[37] D. H. Schunk, M. K. Dibenedetto, Self–efficacy theory in education. Handbook of motivation at school. 2 (2016) 34–54.

[38] G. Caprara, M. Vecchione, C. Barbaranelli, G. Alessandri, Emotional stability and affective self–regulatory efficacy beliefs: Proofs of integration between trait theory and social cognitive theory. European Journal of Personality. 27 (2) (2013) 145–54.

[39] C. Pocnet, M. Dupuis, A. Congard, D. Jopp, Personality and its links to quality of life: Mediating effects of emotion regulation and self–efficacy beliefs. Motivation and Emotion. 41 (2) (2017) 196–208.

[40] J. Black, K. Kim, S. Rhee, K. Wang, S. Sakchutchawan, Self–efficacy and emotional intelligence: Influencing team cohesion to enhance team performance. Team Performance Management: An International Journal. 25 (1/2) (2019) 100–19.

[41] E. M. Skaalvik, R. A. Federici, R. M. Klassen, Mathematics achievement and self–efficacy: Relations with motivation for mathematics. International Journal of Educational Research. 72 (2015) 129–36.

[42] B. M. Galla, J. J. Wood, E. Tsukayama, K. Har, A. W. Chiu, D. A. Langer, A longitudinal multilevel model analysis of the within–person and between–person effect of effortful engagement and academic self–efficacy on academic performance. Journal of School Psychology. 52 (3) (2014) 295–308.

[43] C. E. Galyon, C. A. Blondin, J. S. Yaw, M. L. Nalls, R. L. Williams, The relationship of academic self–efficacy to class participation and exam performance. Social Psychology of Education. 15 (2) (2012) 233–49.

[44] M. Bassi, P. Steca, A. Delle Fave, G. V. Caprara, Academic self–efficacy beliefs and quality of experience in learning. Journal of Youth and Adolescence. 36 (3) (2007) 301–12.

[45] W. B. Schaufeli, M. Salanova, V. González–Romá, A. B. Bakker, The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. Journal of Happiness studies. 3 (1) (2002) 71–92.

[46] W. W. Chin, Commentary: Issues and opinion on structural equation modeling. JSTOR, 1998.

[47] Jr. J. F. Hair, L. M. Matthews, R. L. Matthews, M. Sarstedt, PLS–SEM or CB–SEM: updated guidelines on which method to use. International Journal of Multivariate Data Analysis. 1 (2) (2017) 107–23.

[48] J. F. Hair, W. C. Black, B.J. Babin, R. E. Anderson, Multivariate data analysis 7ed. Upper Saddle River, NJ: Prentice Hall, 2009

[49] C. Fornell, D. F. Larcker, Evaluating structural equation models with unobservable variables and measurement error. Journal of marketing research. (1981) 39–50.

[50] J. Nunnally, Psychometric theory (2 nd edit.) mcgraw–hill. Hillsdale, NJ, 1978.

[51] N. Kock, WarpPLS 3.0 user manual. Laredo, TX: ScriptWarp Systems, 2012.

[52] N. Kock, G. Lynn, Lateral collinearity and misleading results in variance–based SEM: An illustration and recommendations, 2012.

[53] S. Petter, D. Straub, A. Rai, Specifying formative constructs in information systems research. MIS quarterly. (2007) 623–56.

[54] K. J. Preacher, A. F. Hayes, SPSS and SAS procedures for estimating indirect effects in simple mediation models. Behavior research methods, instruments, & computers. 36 (4) (2004) 717–31.

[55] I. John, N. K. Anthony, D. Y. Bakari, Impact of Work Life Balance on the Psychological Wellbeing of Employees in the University of Cape Coast. Journal of Psychology. 8 (1) (2020) 8–19.

[56] K. A. Davies, A. M. Lane, T. J. Devonport, J. A. Scott, Validity and reliability of a brief emotional intelligence scale (BEIS–10). Journal of Individual Differences.