

Relationship between personality and academic performance among ethnic Khmer students in Vietnam: The mediating role of teacher confirmation

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ABSTRACT

Understanding factors associated with students' achievement in higher education is critical for planning interventions and services to improve their performance. The aim of this work was to explore the relationship between personality traits and academic performance of Khmer students and examine the role of teacher confirmation of this association. The design was randomly sampled once by a cross-sectional study. A sample population of 426 Khmer students from the first to the third year of three universities in the Mekong Delta region of Vietnam completed the Big-Five personality dimension test, the teacher confirmation scale, and reported their college grade point average (GPA). Results revealed that all five personality traits were positive significantly related to academic performance. The results of the current study are also in line with what other studies have confirmed that personality traits are important predictors of academic achievement. Further, Bootstrapping and Sobel's analyses indicated that teacher confirmation mediated the association between openness to experience, conscientiousness, agreeableness traits, and academic performance while the association of extraversion, emotional stability, and academic achievement was not mediated by teacher confirmation. The findings were interpreted within the classroom context in a multicultural environment in the Mekong delta of Vietnam where instructors could encourage and nurture the Khmer students' achievements based on their personality traits and through the role of teacher confirmation in the classroom.

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1. Introduction

Improvement of students' academic achievement is one of the basic goals of higher education in helping students approach and maintain employment after graduation. In order to improve students' academic performance, university lecturers need to have an understanding of students' personality traits and individual characteristics in learning. However, university students are different in a wide range of aspects such as ethnic groups, culture, family backgrounds, personality


characteristics, and gender. Especially, in Vietnam, there are 54 official ethnic groups, each with its own different language, lifestyle, and cultural heritage. Therefore, when students enter university, they often bring their own lifestyle and culture. Khmer students belong to an ethnic minority living predominantly in the Mekong Delta area of Vietnam. Khmer people use bilinguals in the Khmer and Vietnamese languages. In terms of culture, approximately 95% of the Khmer are Buddhists. Buddhism has shaped the Khmer way of life, guiding the standards of traditional values for men, women, and children which help them to feel secure and have high self-esteem when they are in their own community (Huynh, 2011).

In Vietnam, yearly, there are roughly 10% to 20% of Khmer students enroll in universities in the Mekong Delta. These students are required to use Vietnamese as the primary language when learning

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in the classroom, however, several researchers found that Khmer students have had difficulties in expressing their thoughts and ideas by Vietnamese (Kinh) language in academic activities in the classroom (Pham, 2017). Khmer freshmen have been perceived as quite passive, with a lack of engagement in the topic, and often sit in the back of the classroom (Pham, 2017). They have also shown a reluctance to ask questions or participate in classroom activities and have had difficulties in organizing and expressing their ideas so that others can grasp and understand them. Among Khmer students, many expressed their concerns about their Vietnamese language competence which is associated with difficulties of being understood by their classmates and their lectures. It can be seen that their perceptions are that their Vietnamese language is weak, which contributes to their lack of confidence in interacting and studying with other cultural students and lecturers. As a result, the student's academic performances are often lower than those of other ethnicities (Nguyen, 2015). It is clear that Khmer students entering educational institutions face challenges which are resulting from their own language and culture. Students' bilingual language and distinct culture were found to have correlations with their personality traits (McCrae and Costa, 1997; McCrae, 2002; Migliore, 2011). Therefore, the present study investigates whether Khmer students' personality traits were related to their academic performance and examines the role of teacher confirmation in this relationship.

2. Literature review

Personality traits are described various stable individual characteristics of a person with particular patterns of behaviors, cognitions, feelings, and motives (Hogan et al., 1996) that a person exhibits across varying contexts and situations. In the current study, the personality test used the Big Five personality traits that were introduced by McCrae and Costa (1987; 2003). It includes the dimensions of agreeableness (sympathy, honesty, sense of cooperation and hospitality), extraversion (positive emotions, activity, sociableness, and the tendency to seek stimulation in the company of others), conscientiousness (the tendency to show self-discipline, planning, and organization), openness to experience (a degree of intellectual curiosity, creativity, and preference for novelty and variety) and emotional stability (the tendency to be relaxed, secure, and calm). For Khmer students in Vietnam, Nguyen and Loan (2020) found that a high level of agreeableness and a low level of extraversion traits are typical characteristics of Khmer students. These traits have explained the link to the Khmer's culture of belief in Buddhism and lifestyle in exclusive communication with their own community (Pham et al., 2011).

Regarding academic performance, GPAs are the measurement of student achievement across various academic subjects. In Vietnamese universities,

educators generally use classroom performance and result from standardized tests of academic subjects to measure academic achievement. In comparison with the academic performances of other ethnic students in the Mekong delta of Vietnam, the Khmer students' learning outcomes were lower. This researcher found that academic backgrounds directly affected their academic success in the university which means that if freshmen Khmer students had low high school outcomes or not fully developed reading, writing, speaking, and computational skills, their college outcomes would be predicted to be low (Nguyen, 2015).

In terms of teacher confirmation, Ellis (2000) defined teacher confirmation as "the transactional processes by which teachers communicate to students that they are endorsed, recognized, and acknowledged as valuable, significant individuals." Teacher confirmation consisted of three behavioral dimensions. First, instructors can confirm students by responding to their questions and comments. Second, instructors can confirm students by demonstrating an interest in students or their learning. Third, instructors use an interactive teaching style to assist students in learning in the classroom (Ellis, 2000; 2004). An interesting thing in the previous studies was that the Khmer students had good relationships with their lecturers no matter if they were Khmer or other ethnic groups, however, the relationships did not contribute to Khmer students' academic performance.

2.1. Personality traits and academic performance

There is much literature on personality traits and academic achievement suggesting that personality traits are significantly related to academic achievement. Stajkovic et al. (2018) showed that personality trait is one of the best predictors of academic success. Hakimi et al. (2011) revealed that personality trait characteristics accounted for 48 percent of the variance in learning outcomes in which conscientiousness has a positive relation and neuroticism, extroversion have a negative relation to academic achievement. Several other studies indicated agreeableness, extroversion, and openness to experience are positively related to academic performance, while neuroticism is negatively associated with academic performance (Lounsbury et al., 2003; Laidra et al., 2007). Among these traits, the association between neuroticism and extroversion with the academic outcome has been controversial and conflicting. Some researchers have pointed to a negative association between neuroticism and academic performance (Lounsbury et al., 2003; Laidra et al., 2007). Laidra et al. (2007) explained that students with anxiety and worried feelings appeared to be a drawback that affected negatively their academic performance. However, Komarraju et al. (2009) revealed a positive relationship between neuroticism and academic achievement. Students displaying emotional instability would possibly feel some level of

achievement anxiety which is able to motivate them to study hard and improve their academic achievement. Similarly, some researchers found that extroversion is positively associated with academic performance (Lounsbury et al., 2003; Laidra et al., 2007), which might be explained by extravert students being more active, and asking more questions that can help them comprehend materials more effectively leading high academic performance. Others found a negative correlation between this personality and academic achievements (Hakimi et al., 2011) where the active social life of extravert students has been seen as a factor delaying them from focusing on academic activities and devoting time to their social activities, which can lead to poorer academic performance. In other studies, conscientiousness was reported to be the strongest predictor of academic performance (Noftle and Robins, 2007; Wagerman and Funder, 2007; Hakimi et al., 2011). Hakimi et al. (2011) concluded that the conscientiousness trait accounted for 39 percent of the variance in the academic achievement of students which explained that students with highly responsible, achievement-oriented, and industrious characteristics make them determined and resolved to gain high academic attainments.

In short, the Big Five personality factors are related to academic performance, however, the model of relationships among these factors is still inconsistent, and this current study can be used to explore these inconsistencies in the Khmer minority student group.

2.2. Teacher confirmation and academic performance

Teacher confirmation behaviors previously have been found to reduce students' fear and anxiety and increase the level of comprehending class material and improve students' perceived learning in the classroom (Ellis, 2004; Hsu, 2012), which helps students feel better about their academic knowledge and experiences. Campbell et al. (2009) found that teacher confirmation explains variance in students' effort and interest in the classroom promoting active student learning. Edwards et al. (2011) showed that teacher confirming behaviors can help students feel a strong sense of belonging in the classroom in motivation to learn related to higher levels of affective learning by providing a warm, safe, caring, and supportive classroom environment for the student community to grow and flourish. Also, teacher confirmation has been shown to be a significant predictor of student learning outcomes including both affective and cognitive learning (Ellis, 2000; Goodboy and Myers, 2008). Considering the relationship between teacher confirmation and learning outcomes in cultural differences, Goldman et al. (2014) found that the teacher confirmation had a significant correlation to students' effective learning across cultures in which this relationship was significantly stronger in the United States and China in comparison with it in Turkey. These

findings suggest that teacher confirmation is an effective teaching behavior in the classroom encouraging students learning in various cultures. In a recent study, Goldman et al. (2018) supported that indirect effects between teacher confirmation and students' perceived learning were moderated by students' educational self-efficacy in which students who lack academic self-efficacy obtain fewer of the supposed academic advantages.

The relationship between confirmation behaviors and learning outcomes focuses on confirming the messages of an instructor, which can promote or motivate active student learning and students can improve their academic performance. Current research is needed to validate the relationship between teacher confirmation and academic performance among ethnic Khmer students in the Vietnam context.

2.3. Students' personality and teacher confirmation

Studies about the relationship between students' personality traits and teacher confirmation are scarce, but there are several studies that discuss the relationship between the teachers' behavior and the students' personalities. Helton and Oakland (1977) showed students' personality characteristics are significantly related to teacher attitudes of attachment. Teachers tend to be the most attached to and concerned about students who lack self-confidence, are passive, and have a dependence on others, while less attachment to, as well as more rejecting and indifferent, towards students who are active independent. Charalampous and Kokkinos (2014) found that students with sociable, empathetic, and gregarious characteristics tend to perceive higher levels of helpfulness and understanding behavior from their teachers, and this led to higher achievement in a certain subject. These researchers have shown that the way a teacher behaves is based on students' characteristics. However, until now, there has not been any systematic or in-depth academic study on the relationship between students' personality traits and teacher confirmation behaviors in university courses.

On the basis of the previous literature review, it can be concluded that students' personality traits and teacher confirmation are related to academic performance. The purpose of this study is to examine whether ethnic Khmer students' personality traits were related to their academic performance and whether teacher confirmation mediated the relation between personality and academic performance. In this research, two hypotheses are proposed:

H1: Personality traits have a positive relationship with academic performance.

H2: Teacher confirmation mediates the positive impact of personality traits on academic performance.

3. Methodology

3.1. Participants

A total of 426 Khmer students from three universities including Tra Vinh University, Can Tho University and Kien Giang University in the Mekong Delta region of Southern Vietnam was selected and volunteered for participation in this study. One hundred forty-one students (33.1%) were the first year, 152 students (25.7%) were the second year, 133 students (31.2%) were the third year. Of these students, 256 (60.1%) were female and 170 (39.9%) were male. Participants ranged from 18 to 22 years old.

3.2. Research instruments

Personality traits were measured by a questionnaire using the Ten Item Personality Inventory (Gosling et al., 2003) which was translated into Vietnamese by 2 translators who at first worked separately and were subsequently asked to work together on the items until a whole agreement was reached. This inventory is comprised of 10 items with each personality trait (Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Openness to Experience) consisting of a pair of descriptors that were ranged from 1 (strongly disagree) to 7 (strongly agree). Specifically, each dimension was represented by two items, one stated in a positive way and the other stated in a negative way. For this instrument, alphas are misleading when calculated on scales with small number items (Woods and Hampson, 2005).

Teacher confirmation was measured by the Teacher Confirmation Scale by Ellis (2000) which was also translated into Vietnamese by two translators until a complete agreement was reached. Teacher confirmation consists of 16 items and

measures behaviors across three dimensions: teachers' responses to students' questions or comments (5 items), demonstrated interest in students (6 items) and in their learning, and teaching styles (5 items). Participants evaluated the instructor's confirming behaviors on a five-point Likert scale ranging from "strongly agree" to "strongly disagree." Cronbach's alpha reliability was 0.91 in this study.

Academic pre-performance was measured by students' self-reports (GPA-total mean of semesters). Each class grade point is evaluated according to the native Vietnamese system, converted to A, B, C, D, F ranging from 4 (excellent) to 0 (fail).

3.3. Data analysis procedure

The SPSS 22.0 statistical software was used to perform statistical analysis in this study. Mean and standard deviation was used to determine the personality traits academic performance of Khmer students. Pearson correlations were computed to determine the significance of the relationship among personality traits, teacher confirmation, and academic performance. Finally, SPSS PROCESS macro (Hayes, 2017) was used to conduct the mediation analysis of teacher confirmation in the relationship between personality traits and academic performance.

4. Results

4.1. Descriptive statistics and correlation for all variable

The summary of mean with standardization of the personality traits, teacher confirmation, and academic performance and correlation for all variables are presented in Table 1.

Table 1: Correlations and descriptive statistics for all measures

	1	2	3	4	5	6	7
1. Extraversion	1						
2. Conscientiousness	0.011	1					
3. Openness to Experience	0.161**	0.277**	1				
4. Emotional stability	0.227**	0.195**	0.232**	1			
5. Agreeableness	0.050	0.244**	0.380**	0.127**	1		
6. Teacher confirmation	0.074	0.143**	0.162**	0.096	0.178**	1	
7. Academic performance	0.177**	0.136**	0.180**	0.116*	0.153**	0.170**	1
Mean	4.09	5.16	5.41	4.36	5.69	3.96	2.46
SD	1.20	1.18	1.02	1.15	0.99	0.48	0.74

** : Effect is significant at the 0.01 level (2-tailed)

From Table 1, all personality traits show a positive correlation with academic performance (Pearson correlations ranging from 0.116 to 0.180, $p < 0.05$), which means that an increase in these personality traits would lead to better academic performance, meanwhile, in terms of teacher confirmation, there were three traits including conscientiousness, openness to experience and agreeableness which also demonstrate positive correlation coefficients ($p < 0.05$). Extraversion and emotional stability did not reach statistical

significance showing any correlation with teacher confirmation ($r = 0.074$ and $r = 0.096$, respectively, $p > 0.05$).

Considering Khmer students' personality traits, as can be seen in Table 1, agreeableness exhibited the highest mean ($M = 5.69/7$, $SD = 0.99$) while Extraversion had the lowest mean ($M = 4.09/7$, $SD = 1.20$). The academic performance of Khmer students was average with $M = 2.46/4$ and $SD = 0.48$. The concept of students on teacher confirmation is good with $M = 3.96/5$ and $SD = 0.74$ in which the mean

of teacher’s response to students’ questions or comments was equal to 3.98, mean of teacher’s interest in students and mean of learning was equal to 3.94, and teaching style was equal to 3.95.

4.2. Mediation analysis of teacher confirmation

In order to explore the role of teacher confirmation between dimensions of personality traits and academic performance, test mediator effects using the PROCESS Macro of Hayes and Preacher (Hayes, 2017) was used. The mediating effect of teacher confirmation was checked by using two methods: Sobel test results (Sobel, 1982) and Bootstrapping method (Hayes and Preacher, 2013). The Sobel test results in Table 2 show the indirect effect in respect to teacher confirmation in model 2 (z=1.998, p<0.05), model 3 (z=2.146, p<0.05), and

model 4 (z=2.123, p<0.05) was significant. The Bootstrapping method was also used to generate a 95% confidence interval for the indirect effect within these three models because its population value did not contain the value of zero. On the basis of the results, teacher confirmation was found to be significantly mediating the impact of conscientiousness, openness to experience, and agreeableness traits on academic performance. The Sobel test and Bootstrapping method for model 1 (z=1.249, p>0.05) and model 5 (z=1.526, p>0.05) were not significant, showing that teacher confirmation was found to be not significantly mediating the impact of extraversion, emotional stability, and academic performance. A graphical depiction is provided in Fig. 1.

Table 2: Summary of mediation analysis for self-esteem in the models

Models	Total effect	Direct effect	Indirect effect	95%CI		Sobel test	
				Boot LLCI	Boot ULCI	z	p
1. Extraversion --> Teacher confirmation --> Academic performance	0.107**	0.100*	0.007	-0.004	0.020	1.249	0.212
2. Conscientiousness --> Teacher confirmation --> Academic performance	0.089**	0.076*	0.013*	0.002	0.029	1.998	0.046
3. Openness to experience --> Teacher confirmation --> Academic performance	0.139**	0.121**	0.018**	0.004	0.035	2.146	0.032
4. Agreeableness --> Teacher confirmation --> Academic performance	0.115**	0.096*	0.018**	0.003	0.042	2.123	0.034
5. Emotional stability --> Teacher confirmation --> Academic performance	0.080*	0.071*	0.009	-0.001	0.023	1.526	0.127

** : Effect is significant at the 0.01 level (2-tailed); * : Effect is significant at the 0.05 level (2-tailed)

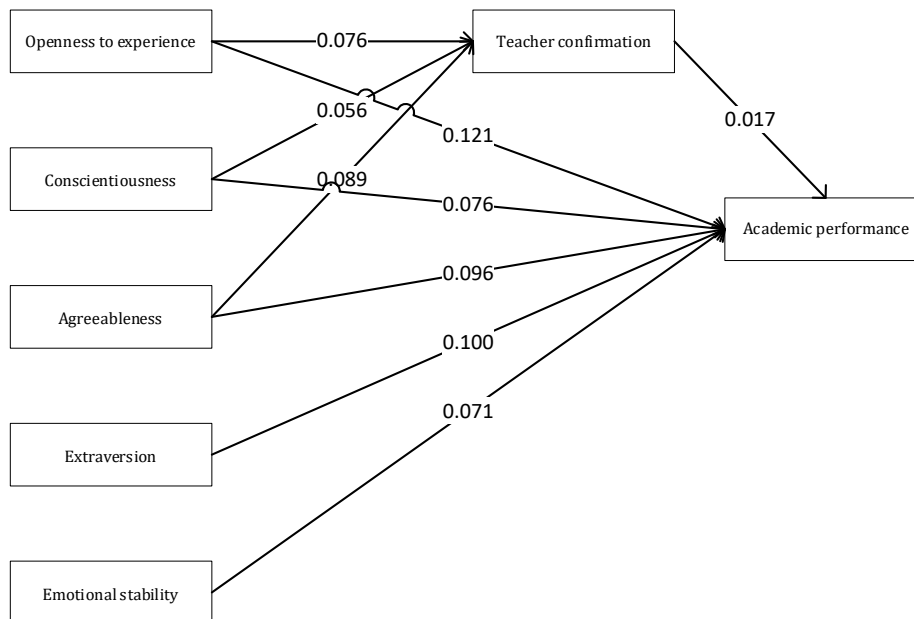


Fig. 1: Diagram of paths in mediator model

5. Discussion

The results confirmed the hypothesis that personality traits have a positive relationship with academic achievement among Khmer students, and these results are consistent with earlier studies (Laidra et al., 2007; Hakimi et al., 2011). Among five personality factors, openness to experience, conscientiousness, and agreeableness had both

direct and indirect influences on academic performance, meanwhile, extraversion and emotional stability only showed direct influence on academic performance.

Openness to experience had the strongest direct impact on academic performance. This personality is related to the ability to grasp new ideas and the tendency to seek novel educational experiences of an open person (McCrae and Sutin, 2009), thus more

'open' Khmer students tend to have higher GPAs and consequently higher academic achievement. This openness has a positive direct effect on achievement which is consistent with previous studies (Komarraju and Karau, 2005; Nofle and Robins, 2007; Zhou, 2015). Moreover, openness to experience for Khmer students contributed to their academic achievement through teacher confirmation as well. It may be stated that if Khmer students have the abilities to search and grasp new knowledge or are more open to experience related to their learning outcome, however, Khmer students have had difficulties in academic communication in the classroom (Pham, 2017) because of their limited Vietnamese language ability which can contribute to their lack of confidence in learning activities on the classroom. Meanwhile, teacher confirmation behaviors have been found to reduce students' fear and to improve students' perceived learning in the classroom (Ellis, 2004; Hsu, 2012) and students would more willing to participate in classes with confirming instructors (Goodboy and Myers, 2008). Thus, in this study, teacher confirmation is a vital factor supporting and confirming Khmer students' learning effort, which consequently leads to higher academic achievement.

The variable that has the second-highest positive direct and indirect influence on academic performance is agreeableness. It can be seen from Table 1, agreeableness exhibited the highest mean among Khmer students. People with a high level of agreeableness are predisposed to learn agreeableness about others, to be flexible and accommodating in dealing with others (Graziano and Tobin, 2015), and tend to be good-natured and cooperative (Roccas et al., 2002). This trait involves compliance and cooperativeness which makes Khmer students more likely to consolidate their learning and regulate their study as a base for academic performance. High agreeableness among Khmer students also related to the Khmer's culture with belief in Buddhism-which shapes the Khmer way of life with high standards of values such as honesty and being helpful and more trusting of others. These characteristics can help students perform well in cooperative learning during teamwork activities. It was also found that cooperative learning skills are significantly related to academic performance. Agreeableness is an interpersonal rather than intrapersonal trait dimension. Therefore, confirming behaviors of lecturers in the classroom may be one mechanism through which lecturers can encourage increased student communication where the significance of the path trait of Agreeableness --> Teacher Confirmation --> Academic Performance was obtained. It means that when an instructor shows interest in Khmer students by using praise, smiles, and eye contact, students from teacher confirmation will feel more valued and confident in class which motivates students to make more of an effort in learning activities. In addition, Frymier and Houser (2016) also reported that when instructors were more

nonverbally immediate with students such as smiling, nodding, classroom participation and student motivation to study and learn increased. It is very necessary for high agreeableness trait among Khmer students.

The third trait that had a direct effect on academic achievement and the association with academic achievement that was mediated by teacher confirmation is conscientiousness. Students with conscientiousness demonstrated that this had a significant impact on their academic, and is consistent with the previous literature reviews (Nofle and Robins, 2007; Hakimi et al., 2011). This shows that conscientious learners are responsible and complete their academic tasks to improve their performance. Also, students who were conscientious and described themselves as cooperative were likely to have a designated place for studying or choose a study place where they could be more focused and skillfully manage and make good use of their study time (Bidjerano and Dai, 2007), and as a result, their academic performance is higher. Moreover, conscientiousness had a direct influence on teacher confirmation which directly influenced academic achievement. Conscientious students are characterized by their perseverance and precise manner of working (Feyter et al., 2012), and Khmer students were found to be industrious in learning. With support from teacher confirmation, conscientious students are believed to have motivation for study, which strongly enhances student achievement.

Finally, the results show that extraversion and emotional stability were directly related to academic performance, but the association of these traits with academic achievement was not mediated by teacher confirmation. For extraversion, this trait was positively related to academic achievement. This finding is in line with the findings of some researchers (Lounsbury et al., 2003; Laidra et al., 2007). One explanation for this result is that extraversion is characterized by sociability and excitement-seeking, therefore, these students with high extraversion are actively involved in learning, which can be demonstrated by willingness to share their idea or ask questions. Therefore, if Khmer students were more active, more talkative, and asking questions, their academic would be higher. Then, the mediator of teacher confirmation of the relationship between extraversion and academic achievement did not possibly establish. Similarly, emotional stability only had a direct effect on academic achievement. In other words, the association of emotion with academic achievement was not mediated by teacher confirmation. Emotional stability is described by the capacity to maintain one's emotional balance under stressful situations and it also refers to the tendency to be relaxed, secure, and calm (Digman, 1990). Khmer students with a high level of emotional stability may appear well-adjusted and self-confident and link to higher academic achievement at higher educational

levels, therefore the mediator of teacher confirmation in this study may be ignored.

However, it is difficult to claim that extraversion and emotional stability have only a direct influence on achievement. Because these personality traits are an intrapersonal rather than interpersonal trait dimension, therefore, the mediators of the relationship between these traits and academic performance might be constructed and be related to the metacognitive process that is not measured in this research.

6. Conclusion

The current study contributes to the research field by revealing important relationships between the big-five personality traits and academic performance with the role of teacher confirmation which has been established as important mediators in the context of the minority ethnic Khmer students in Vietnam. Among personality traits, conscientiousness, agreeableness, and openness were found to have both direct and indirect associations with academic achievement through teacher confirmation while extraversion and emotional stabilities were only positively directly related to academic performance.

This study implies that university educators in the Mekong Delta region of Vietnam should be aware of Khmer students' different personality traits and take advantage of Khmer students' individual strengths to improve the Khmer students' academic performance. Those Khmer students who demonstrated conscientiousness, agreeableness, and openness can be nurtured in the classroom through the role of teacher confirmation in the classroom, including responding to questions, demonstrating interest, and interactive teaching styles. Especially, a high level of agreeableness is a typical characteristic of Khmer students. Therefore, teacher confirmation plays an integral part in encouraging Khmer students to become more active and helping them feel better about their academic capabilities and experiences, which consequently leads to higher academic performance.

7. Limitations and study forward

Besides the above valuable findings, the current study has several limitations. Firstly, the data was collected at three universities where Khmer students experienced their campus life in the Mekong delta of Viet Nam. Thus, generalizations to larger populations could be limited. Secondly, a 10 Ten Item Personality Inventory (Gosling, et al., 2003) used to measure Khmer Students' personality traits is a very short instrument with a small number of items, so the coefficient alphas are misled when calculated. Finally, the mediator of the relationship between these traits and academic performance in this current study is related only to one variable of teacher behavior. Therefore, for future research, the context of the study should be expanded to other

universities in the Mekong Delta of Vietnam and we will use other instruments with more items in exploring students' personalities. In addition, further studies with additional steps including mediators of the metacognitive process are needed to fully understand the role of extraversion and emotional stability on academic achievement.

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Compliance with ethical standards

Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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