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Investigating Factors Affecting International Students' Academic Performance in Higher Education in the United States

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Abstract

Although international students represent around 5% of the higher education population in the United States, research on psychological factors that result in this segment's academic success remains limited. This study sought to help fill this knowledge gap by exploring success factors that affect international students' academic progress. Specifically, we examined psychological characteristics and learning strategies influencing these students' achievement. Quantitative data were collected from 85 international students in the United States. Using a survey grounded in positive psychology and learning theories, we studied correlations between their character strengths, learning strategies, and academic performance. A linear regression model was used to determine the predictability of these students' academic performance. Character strength variables correlated with academic performance and learning strategies. In addition, learning strategies correlated positively with academic performance. Multiple regression analysis revealed that both character strengths and learning strategies predicted academic performance whereas demographics did not.

Keywords**:** academic performance, character strengths, international students, learning strategies, perseverance, positive psychology, self-regulation

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Factors Affecting International Students' Academic Performance in Higher Education in the United States

Roughly one million international students have enrolled in American higher education institutions annually since 2010 (Institute of International Education, 2021). Overall, these students have constituted around 5% of the higher education population over the past decade (Institute of International Education, 2019, 2021). The quality of education, job opportunities, and professional development in the United States (US) motivate students from around the world to continue their education in this country. Yet alongside appealing aspects of their journeys, international students encounter

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social and psychological difficulties that influence their learning and career (He & Hutson, 2018; In, 2016; Jackson et al., 2013; Lowinger et al., 2014; Poyrazli & Isaiah, 2018; Wang et al., 2018). This study was an attempt to realize how international students can overcome these challenges according to the character strengths model developed by Peterson and Seligman (2004) and learning strategies proposed by Pintrich et al. (1991). Thus, we selected four strengths from Peterson and Seligman's (2004) character strengths model that were relevant to our study and other scholars previously determined their impact on academic success of international students: love of learning, self-regulation, perseverance, and social intelligence (Jackson et al., 2013; Liao et al., 2012; Mamiseishvili, 2012; Poyrazli & Isaiah, 2018). Also, we extracted the components from learning strategies proposed by Pintrich et al. (1991) in their strategies for learning questionnaire (Motivated Strategies for Learning Questionnaire; MSLQ).

Prominent scholars previously identified character strengths and learning strategies affecting academic performance of students. For instance, Duckworth (2016) researched how students persisted passionately on achieving their goals and concluded that gritty students have higher levels of perseverance; they make a considerable amount of effort to achieve their goals and spend more time on their assignments at home and outside of the classroom. Peterson and Seligman (2004) defined self-regulation as "…how a person exerts control over his or her own responses so as to pursue goals and live up to standards" (p. 500) and realized students with high self-regulation might get better grades. Another character strength we studied was social intelligence; this strength is defined as "…the ability to understand people and effectively relate to them" (American Psychological Association, 2020, Social Intelligence section). Although social intelligence plays an important role in academic success of students, this strength is studied less than other strengths such as self-regulation and perseverance in educational institutions.

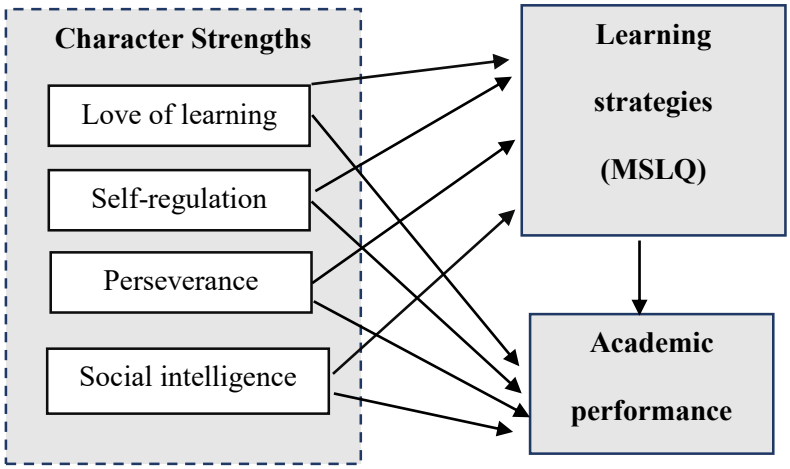
The purpose of this quantitative survey research was to explore the relationship between character strengths variables (love of learning, self-regulation, perseverance, and social intelligence) derived from Peterson and Seligman (2004), learning strategies derived from the MSLQ (Pintrich et al., 1991), and academic performance of international students in the US. Additionally, the study examined the linear relationship between mentioned variables and academic performance when accounting for the demographic background of international students.

Theoretical Framework

The theoretical framework guiding this effort is depicted in Figure 1, illustrating relationships between the variables of interest. We hypothesized that the chosen character strengths (love of learning, self-regulation, perseverance, and social intelligence) would correlate with international students' learning strategies and academic performance. Learning strategies were also expected to correlate with academic performance.

Figure 1

Theoretical Framework



Research Questions and Hypotheses

In the present study, we conducted a quantitative survey with a sample of international students in the US to clarify the relationships between (a) relevant character strength variables derived from Peterson and Seligman's (2004) model, (b) learning strategies, and (c) academic performance. Our work was underpinned by the following research questions:

RQ1: Does any relationship exist between character strengths and academic performance?

RQ2: Does any relationship exist between character strengths and learning strategies?
RQ3: Does any relationship exist between learning strategies and academic performance?
RQ4: Does a linear relationship exist between academic performance, learning strategies, and character strengths when accounting for demographic factors?
We formulated the following hypotheses for this study:
H1: Correlations exist between international students' character strengths and academic performance.
H2: Correlations exist between international students' character strengths and learning strategies.
H3: Correlations exist between international students' learning strategies and academic performance.
H4: A linear relationship exists between international students' academic performance, learning strategies, and character strengths when accounting for demographic factors.

Literature Review

International students' character strengths are integral to their scholastic and career accomplishments (He & Hutson, 2018; Liao et al., 2012; Muenks et al., 2017; Seligman, 2011). Love of learning, self-regulation, perseverance, and social intelligence are among the strengths thought to most heavily influence international students' learning, achievement, and academic performance.

Love of Learning

Students' positive feelings toward learning are associated with psychological constructs such as love of learning (Peterson & Seligman, 2004), intrinsic motivation (Ryan & Deci, 2017), self-regulated learning (Bandura, 1997; Schunk & Zimmerman, 1998), flow (Csikszentmihalyi, 1991), and well-developed interest (Hidi & Renninger, 2019). A love of learning facilitates students' pursuit of academic goals (Peterson & Seligman, 2004; Schunk, 2012; Zull, 2002, 2006).

Zull (2002) emphasized the role of emotions in learning, claiming that "Our emotions still seem very important, and if we want to help people learn, we must expect to encounter emotion, and we must take it seriously" (p. 52). Research suggests that students who experience positive emotions during the learning process are more engaged in their academic tasks than other students (Alt, 2015; Ciarrochi et al., 2016; Cohn & Fredrickson, 2012; Dismore et al., 2018; In, 2016; Rowe et al., 2015).

Self-Regulation

Although most of the research on self-regulation is conducted in clinical and experimental settings, recently researchers studied educational institutions to see how self-regulation helps students monitor their learning through goal setting, planning, organizing, and evaluation (Schunk, 2012). Students who set goals for academic activities and assess their progress according to these standards are self-regulated: They pursue their goals through effort. Self-regulation is like a muscle that becomes stronger with more exercise, thus instructors who give some degree of autonomy to their students will help them to develop this strength and become self-regulated learners (McCarthy, 2015; Peterson & Seligman, 2004; Ryan & Deci, 2017; Schunk, 2012). For instance, some instructors may allow students to select a project topic rather than assigning predetermined choices, thus students have the opportunity to think, plan, assess their interests, select a topic, and become self-regulated learners. Similarly, self-regulation influences students' academic performance through goal setting, which in turn facilitates learning (Ryan & Deci, 2017; Sommet & Elliot, 2017). As an example, students who study abroad set goals to improve their foreign language skills, deploy more complicated learning strategies, and engage in deep learning when they have more agency over their learning (Sommet & Elliot, 2017).

Perseverance

Gritty students navigate their academic careers partly by overcoming setbacks (Duckworth, 2016; Liao et al., 2012; Peterson & Seligman, 2004). In the US, international students often struggle to persevere more than domestic students; the former group may encounter an array of psychological and social obstacles such as homesickness, cultural barriers, and social anxiety (Jackson et al., 2013; Lowinger et al., 2014). Even so, Liao et al. (2012) discovered that many international students persevere in the US higher education system and continue their careers.

Several variables correlate with academic performance. However, perseverance has been identified as the best predictor of such performance among multiple influencing factors (e.g., self-regulation, self-efficacy, goal setting, and learning strategies) (Liao et al., 2012; Muenks et al., 2017; Wolters & Hussain, 2015). Muenks et al. (2017) performed a regression analysis and demonstrated that perseverance forecasts international students' academic performance. Additionally, grittier students have been found to earn higher grade point averages (GPAs) than students with less endurance (Mamiseishvili, 2012).

Social Intelligence

Bandura (1997) noted the importance of the relationship between students and their social environment in his social cognitive theory. Students learn from peers, teachers, and parents; they should be able to interact with the people around them and cultivate meaningful relationships in an academic setting. Social intelligence and social skills enable students to use their environment to realize academic goals (Gulliford et al., 2019; Peterson & Seligman, 2004; Seligman, 2011). Although international students frequently face social barriers (e.g., in terms of language, cultural adjustment, and social anxiety), their social skills can improve given adequate effort, self-efficacy, and social support (Jackson et al., 2013; Pajares, 2008; Slantcheva-Durst & Knaggs, 2019).

Learning Strategies

Students apply diverse cognitive, metacognitive, and motivational strategies to learn academically (Schunk, 2012). Students who employ cognitive strategies such as rehearsal, elaboration, and organization perform better on their final exams than classmates who do not know about these strategies (Warr & Downing, 2000). Students generally rely on metacognitive strategies such as goal setting, time management, planning, and emotional control to meet scholastic goals (Hofer et al., 1998; Pintrich et al., 1991). The use of learning strategies to accomplish academic objectives has also been observed among international students in particular (Lee & Durksen, 2018).

Academic Performance

Scholars have explored elements that mold students' academic performance. Aspects of interest include self-efficacy (Fonteyne et al., 2017; Schunk, 2012; Zimmerman et al., 1992), self-regulated learning strategies (Lucieer et al., 2016; Schunk, 2012; Schunk & Zimmerman, 1998), student–faculty communication (Poyrazli & Isaiah, 2018), and feedback (Brown et al., 2016). Factors affecting international students' achievement have also garnered attention. Self-regulation (Asikainen et al., 2018; Hofer et al., 1998; Lucieer et al., 2016; Thibodeaux et al., 2016), love of learning (Alt, 2015; Ciarrochi et al., 2016), social intelligence (Jackson et al., 2013; Slantcheva-Durst & Knaggs, 2019), and perseverance have been deemed critical (Liao et al., 2012; Lowinger et al., 2014; Mamiseishvili, 2012).

Methodology

This study answered the research questions through a quantitative survey design. We examined the relationships between independent variables (character strengths, learning strategies, and demographic background) and dependent variable (academic performance) through developing a survey according to available standardized questionnaire (see Appendix). Our study was a cross-sectional design and we collected data at one point in time through the Qualtrics platform. Then we explored the collected data through correlation and regression data analysis with SPSS to examine the hypotheses of the study.

Respondents

We used convenience sampling together with snowball sampling to recruit international students in the US after determining an appropriate sample size. To verify the sample size, we applied Field's (2009) calculation and considered the desired statistical power of 0.80 with a medium effect size of $r = 0.30$ at a standard alpha level (0.05); thus we indicated that 85 would be a sufficient sample size for our study. Of the 85 respondents, 43 were male (50.6%) and 42 were female (49.4%). Most were between the ages of 18 and 24 (41.2%) or 35–44 (9.4%). Respondents identified as White (47.1%), Asian (28.2%), Black (10.6%), and Other (14.1%). They were enrolled in bachelor's (47.1%), master's (42.4%), or doctoral (10.6%) programs in the US at the time of data collection.

Procedures

After receiving the University's Institutional Review Board approval, we posted flyers on social media platforms such as LinkedIn and Facebook to recruit international students. Respondents could click on the Qualtrics link provided on the flyer and fill out the survey online. All participants in this study received an invitation to participate voluntarily and a consent form positioned at the beginning of the Qualtrics survey. Once surveys were completed, all data were downloaded as an encrypted file from Qualtrics for subsequent analysis via SPSS.

Instruments

The survey consisted of four sections (see Appendix). The first section contained demographic questions soliciting respondents' age, gender, race, ethnicity, country of origin, educational level, educational program, and university or college they were attending. The second section included items from VIA-120 (VIA Institute on Character, 2017), scored on a 5-point Likert-type scale (1 = *does not describe me*, to 5 = *describes me extremely well*). These items measured four variables related to character strengths: love of learning, social intelligence, self-regulation, and perseverance (Peterson & Seligman,

2004). Each variable in this section was assessed using five items, such as "I am thrilled when I learn something new." (love of learning), "I am a highly disciplined person." (self-regulation), "I know how to handle myself in different social situations." (social intelligence), and "I never quit a task before it is done." (perseverance). The third survey section featured 28 items adapted from the MSLQ (Pintrich et al., 1991); items were scored on a 5-point Likert-type scale (1 = *never* to 5 = *always*) to evaluate respondents' learning strategies (e.g., "When reading for courses, I make up questions to help focus my reading."; "I ask the instructor to clarify concepts I don't understand well."; "I try to identify students whom I can ask for help if necessary."). Finally, academic performance was assessed via a self-report measure consisting of six items scored on a 5-point Likert-type scale (1 = *poor*, to 5 = *excellent*; e.g., "Usually, how do you perform in your exams, quizzes, and other class assessments?").

Data Analysis

Survey data were analyzed based on our four hypotheses using correlational analysis and multiple regression. We employed the non-parametric method of Spearman's correlation because the variables did not follow a normal distribution. Multiple regression analysis was conducted to determine the probability of predicting academic performance through character strengths and learning strategies while accounting for students' demographics. The two independent variables were character strengths and learning strategies; academic performance served as the dependent variable.

Results

Table 1 lists descriptive statistics and Cronbach's alpha values for the study scales. All alpha values were greater than 0.70, indicating acceptable internal consistency (Creswell & Creswell, 2018). Regarding the normal distribution of scores, Table 1 shows that all scales except for self-regulation displayed negative skewness. Therefore, during hypothesis testing, we used Spearman's correlation coefficient to identify correlations between variables.

Table 1

Means, Standard Deviations, Cronbach's Alpha Values of Scales

Scale	*M*	*SD*	α	Skewness	Kurtosis
Social Intelligence	18.55	3.96	0.84	-0.56	0.14
Love of Learning	19.46	3.97	0.79	-0.63	-0.57
Self-Regulation	17.38	4.32	0.77	-0.05	-0.71
Perseverance	19.87	3.95	0.87	-0.71	0.19
Learning Strategies	109.80	17.98	0.95	-0.53	0.14
Academic Performance	26.69	3.18	0.86	-1.00	0.68

Correlational Analysis

As listed in Table 2, the character strength scores (social intelligence, love of learning, self-regulation, and perseverance) each exhibited a significant ($p < .01$) correlation with learning strategies (i.e., as per MSLQ items) and academic performance. Respondents' character strengths were therefore correlated with their learning strategies and academic performance. A significant ($p < .01$) correlation also existed between respondents' learning strategies and academic performance.

Table 2

Spearman's Correlations

Variable	1	2	3	4	5	6
1. Social Intelligence	-					
2. Love of Learning	0.58**	-				
3. Self-Regulation	0.56**	0.48**	-			
4. Perseverance	0.60**	0.61**	0.61**	-		
5. Learning Strategies	0.50**	0.56**	0.46**	0.58**	-	
6. Academic Performance	0.42**	0.48**	0.38**	0.57**	0.57**	-

Note. $^{**}p < .01$.

Multiple Regression Analysis

The following linear model was applied in this study:

$$Academic\ Performance = b_0 + b_1 Age + b_2 Gender + b_3 Race + b_4 Edu\ Level + b_5 Lear\ Strg + b_6 Chr\ Str + \varepsilon_i$$

Table 3 summarizes the multiple regression results from SPSS. The linear coefficient of learning strategies was significant at $p < 0.05$, and the coefficient of character strengths was significant at $p < 0.01$. None of the demographic

variables had significant coefficients at $p < 0.05$. Thus, international students with high scores on self-regulation, perseverance, social intelligence, and love of learning who also scored high on learning strategies demonstrated strong scores on academic performance. Demographic variables such as age, gender, race, and educational level did not predict academic performance according to our multiple regression model.

Table 3

Multiple Regression Analysis for Predicting Academic Performance

Variable	*B*	β	*SE*	*p*
Constant	11.67		2.56	0.00
Age	-0.51	-0.18	0.34	0.14
Gender	1.01	0.16	0.62	0.10
Race	0.13	0.05	0.26	0.62
Educational Level	0.58	0.12	0.49	0.24
Learning Strategies	0.04	0.25	0.02	0.03
Character Strengths	0.11	0.47	0.03	0.00

Discussion

This quantitative study was intended to uncover relationships between several attributes of international students in the US: 1) certain character strength variables (social intelligence, love of learning, self-regulation, and perseverance) from Peterson and Seligman's (2004) character strengths model; 2) learning strategies, as derived from Pintrich et al.'s (1991) MSLQ; and 3) academic performance.

Relationships Among Character Strengths and Learning Strategies

Character strengths and learning strategies were positively correlated. Results also revealed a significant positive correlation between love of learning and learning strategies. In other words, international students who scored higher on love of learning used more complex strategies to achieve their academic goals. This correlation is likely attributable to intrinsic motivation, interest, and positive emotions—international students who experience positive emotions about learning adopt more useful learning strategies than students with negative feelings toward learning. This positive correlation has further been substantiated in relation to international students' cognitive and social capabilities (Cohn & Fredrickson, 2012; Rowe et al., 2015).

We also found a positive correlation between self-regulation and learning strategies: Respondents who scored higher on self-regulation scored higher on learning strategies. Findings from positive psychology indicate that students' self-regulation is pivotal to their use of learning strategies and, by extension, their academic performance (Asikainen et al., 2018; Bernardo et al., 2019; Bruso & Stefaniak, 2016; Kickert et al., 2019; Lucieer et al., 2016; Thibodeaux et al., 2016; Wilson & Narayan, 2016).

Perseverance and learning strategies were positively correlated as well: Students who deployed suitable strategies persisted in achieving their academic goals. Earlier work provided clear evidence of this relationship (Mason, 2018; Muenks et al., 2017; Shi, 2018; Wolters & Hussain, 2015). For instance, Muenks et al. (2017) noted a positive correlation between self-control and perseverance. Shi (2018) pointed out that students who use self-regulatory learning strategies proceeded to accomplish their academic goals. Relatedly, Wolters and Hussain (2015) demonstrated that students who adopt appropriate learning strategies endure in academic tasks.

Moreover, a positive correlation emerged between social intelligence and learning strategies. Previous studies also confirm this positive correlation through help-seeking behavior which is one of the learning strategies used by self-regulated learners (Bembenutty, 2016; Hofer et al., 1998). Although there is little research on the relationship between social intelligence and help seeking, in our study we found that students who scored high in social intelligence scored high in learning strategies. This positive correlation might occur because these students typically establish meaningful relationships with professors, administrators, and peers; thus, they seek help from them in their academic challenges.

Relationship Between Learning Strategies and Academic Performance

We identified a positive correlation between learning strategies and academic performance. Specifically, respondents who scored higher on learning strategies scored higher on academic performance. This finding echoes prior work concerning the effectiveness of international students' learning strategies (Bruso & Stefaniak, 2016; Kickert et al., 2019; Shi, 2018).

Relationships Between Character Strengths and Academic Performance

Character strengths, including love of learning, self-regulation, perseverance, and social intelligence, were found to correlate with academic performance. Consistent with other studies (Bruso & Stefaniak, 2016; Isik et al., 2018; Liao et al., 2012), we unveiled a positive correlation between love of learning and academic performance. Isik et al. (2018) similarly observed a positive correlation between international students' intrinsic motivation and academic performance.

The identified positive correlation between international students' self-regulation and academic performance mirrors previous research (Poyrazli & Isaiah, 2018; Shi, 2018). For example, Poyrazli and Isaiah (2018) discovered that international students who use metacognitive strategies can raise their GPAs. These strategies entailed numerous self-regulatory methods such as planning, goal setting, and time management. The authors also noticed that students who applied these strategies were more academically successful than those who did not.

A positive correlation manifested between perseverance and academic performance. This pattern coincides with the finding that students with greater perseverance earn higher GPAs than students with less stamina (Mamiseishvili, 2012). Likewise, perseverance is a strong predictor of high GPAs among international students in the US. These students can regulate their learning, adapt to the culture, and increase their academic performance thanks to grit. In a study of European countries, Bernardo et al. (2019) studied the impacts of learning strategies and self-regulated learning on students' perseverance. Students who used self-regulated learning strategies persisted more than others in their academic careers; these students set goals and continued to achieve them. In general, students' perseverance is essential to their academic performance. Students with more grit are more apt than other students to graduate from post-secondary institutions (Duckworth, 2016).

We also found a positive correlation between social intelligence and academic performance, supporting studies indicating that students with higher social intelligence developed meaningful relationships with their classmates, professors, and educational leaders. These students could therefore accomplish their academic goals with stronger motivation (Gulliford et al., 2019; Jackson et al., 2013; Zautra et al., 2015). Such students have been found to enjoy better academic performance and to maneuver within their social context more effectively than others. Social intelligence is particularly important for international students who hail from a different culture; more energy must therefore be devoted to developing a social network in the US. International students who forge impactful relationships in their social environment can also continue the learning process until they achieve acceptable results (In, 2016).

Predictability of Academic Performance

Although multiple regression analysis did not support the predictive nature of demographic variables, findings revealed that character strengths and learning strategies can partially forecast academic performance. International students who use appropriate learning strategies and develop their character strengths should therefore be academically successful in the US. The multiple regression analysis provided compelling evidence that educational leaders in the US should create learning programs to enable international students to develop their character strengths while familiarizing these students with appropriate learning strategies (e.g., cognitive and metacognitive techniques).

Limitations and Future Research Directions

Several limitations of this study open avenues for future work. Our main limitation concerns the sampling strategy. Robust quantitative research calls for random sampling, such that all members of the population have an equal chance of being selected. Researchers must therefore have access to the population of interest (Creswell & Creswell, 2018; Field, 2009). We used convenience sampling because we could not reach all international students in the US. Our sample might not be representative of the population, tempering the generalizability of our findings. Another limitation involves the sample size: Although we used a suitable statistical method to determine size, larger samples allow for more accurate results (Creswell & Creswell, 2018). We relied on the computed sample size due to the time and financial constraints associated with recruiting large samples. Future studies should feature more participants to draw more robust conclusions.

Our research design also led to limitations. Again, because of time and budget restrictions, we used a cross-sectional survey to study relationships between variables. However, causality cannot be determined via this approach. To identify potential cause-and-effect relationships between international students' character strengths, learning strategies, and academic performance, a more comprehensive design (e.g., experimentation) is required (Field, 2009). The second limitation in this regard involves international students' living experiences. Our method did not reveal how international students applied learning strategies to achieve their academic goals. Findings also did not provide sufficient information about the quality of character strengths influencing these students' academic performance. A mixed method could offer a clearer sense of international students' living experiences (Creswell & Creswell, 2018).

Conclusion

Our study can aid scholars and practitioners in the US in facilitating international students' learning paths. We unearthed positive relationships between character strengths, learning strategies, and academic performance. This evidence can guide educational leaders in crafting programs that foster international students' educational development. Associated curricula and resources can also help these students become self-regulated learners.

Our findings will further enable educators and institutional leaders to evaluate international students' academic performance on the bases of students' character strengths and learning strategies. Additionally, these results could help international offices in universities to implement interventions that nurture students' self-regulation, perseverance, social intelligence, and love of learning. This study also carries implications for the design and implementation of supports that influence international students' learning strategies to enhance academic achievement. Educational leaders can tailor students' experiences accordingly. For example, the identified correlation between social intelligence and academic performance indicates the need for non-curricular opportunities that can in turn shape international students' accomplishments. The documented correlation between perseverance and academic performance implies that higher education institutions' resources should stress perseverance. International students' social intelligence can be cultivated through meaningful socialization (e.g., with peers). These students could even mentor non-international students in effective learning strategies and academic success; their social networks and activities would expand in kind.

Researchers who wish to study international students' academic performance should consider the relationship between educational character strengths, learning strategies, and academic success. Either longitudinal or experimental designs can be employed to investigate the causal relationships between these variables. Scholars should also qualitatively explore international students' academic careers in the US. Data describing participants' lived experiences may provide a more vivid picture of observed correlations.

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APPENDIX

Questionnaire

Demographic Background

1) How old are you?
2) What gender do you have?
3) What is your country of origin?
4) Please indicate your race.
5) What is the highest degree or level of education you have completed?
6) What educational level you are currently attending in the United States?

Educational Character Strength

Social Intelligence

7) I know how to handle myself in different social situations.
8) No matter what the situation, I am able to fit in.
9) I have the ability to make other people feel interesting.
10) I am good at sensing what other people are feeling.

11) I always know what to say to make people feel good.

Love of Learning

12) I am thrilled when I learn something new.
13) I am a true life-long learner.
14) I read all of the time.
15) I read a huge variety of books.
16) I love to read nonfiction books for fun.

Self-regulation

17) I have no trouble eating healthy foods.
18) Even when candy or cookies are under my nose, I never overeat.
19) I am a highly disciplined person.
20) I never want things that are bad for me in the long run, even if they make me feel good in the short run.
21) I can always stay on a diet.

Perseverance

22) I never quit a task before it is done.
23) I always finish what I start.
24) I finish things despite obstacles in the way.
25) I do not give up.
26) I stick with whatever I decide to do.

Learning Strategies

27) When I study the readings for courses, I outline the material to help me organize my thoughts.
28) When studying for courses, I try to explain the material to a classmate or friend.
29) I study in a place where I can concentrate on my course work.
30) When reading for courses, I make up questions to help focus my reading.
31) When I study for classes, I practice saying the material to myself over and over.
32) Even if I have trouble learning the material in the class, I try to do the work on my own, without help from anyone.
33) When I become confused about something I'm reading, I go back and try to figure it out.
34) When I study for courses, I go through the readings and my class notes and try to find the most important ideas.
35) I make good use of my study time.
36) I try to work with other students to complete class assignments.
37) When a theory, interpretation, or conclusion is presented in a class or in the readings, I try to decide if there is good supporting evidence.
38) I make simple charts, diagrams, or tables to help me organize course material.
39) When studying for my academic courses, I set aside time to discuss course material with a group of students from the class.
40) When I study for a class, I pull together information from different sources, such as lectures, readings, and discussions.
41) Before I study new course material thoroughly, I skim it to see how it is organized.
42) I ask myself questions to make sure I understand the material I have been studying.
43) I ask the instructor to clarify concepts I don't understand well.
44) I memorize key words to remind me of important concepts.
45) I try to think through a topic and decide what I am supposed to learn from it rather than just reading it over when studying.
46) I try to relate ideas in an academic subject to those in other courses.
47) When reading for a class, I try to relate the material to what I already know.
48) I try to play around with ideas of my own related to what I am learning.
49) When I study for a course, I write brief summaries of the main ideas from the readings and my class notes.
50) I try to understand the material in the class by making connections between the readings and the concepts from the lectures.
51) I make lists of important items for a course and memorize the lists.

52) I try to identify students whom I can ask for help if necessary.
53) When I study for a class, I set goals for myself in order to direct my activities in each study period.
54) I try to apply ideas from course readings in other class activities such as lecture and discussion.

Academic Performance

55) Your overall GPA is about: (1 = "*0.00 – 0.40"* , 2 = "*0.50 – 1.40"* , 3 = "*1.50 – 2.40"* , 4 = "*2.50 – 3.40"* , 5 = "*3.50 – 4.00"*)
56) Which of the following shows your academic performance in comparison with the class average? (1 = *Far Below Average* … 5 = *Far Above Average*)
57) Usually, how do you perform in your exams, quizzes, and other class assessments? (1 = *Poor* … 5 = *Excellent*)
58) Which one shows your most repeated grade in courses? (1 = *F* … 5 = *A*)
59) How do you perform in your class assignments? (1 = *Extremely Bad* … 5 = *Extremely Good*)

When your classmates evaluate your assignment, usually the result is: (1 = *Poor* … 5 = *Excellent*)

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