



Language Learning Strategies, E-Learning Self-Efficacy, and Academic Dishonesty Among International Students at Asia-Pacific International University

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Abstract

Academic dishonesty is one of the major challenges students, teachers, and educational institutions face at the tertiary level. The present study sought to look at this challenge in the context of online learning at an international university where students not only need to cope with learning new content but also struggle to acquire a second language, namely English. As such, the main research objective was to explore the relationship between academic dishonesty, language learning strategies, and e-learning self-efficacy among international students at Asia-Pacific International University. A cross-sectional survey was used to collect data. Also, the survey was composed of three different scales: (1) the Language Learning Strategies (LLS) Scale was adopted from Ardasheva and Tretter (2013); the E-Learning Self-Efficacy (ELSE) Scale was adopted from Zimmerman and Kulikowich (2016), and the Academic Dishonesty Scale was adopted from Eastman et al. (2008). A total of 225 international students participated in the study. Results indicated a mild relationship between language learning strategies and e-learning self-efficacy, as well as a significant weak relationship between language learning strategies and academic dishonesty. Findings also suggested that Junior, Senior, and Sophomore students are more prone to academic dishonesty. Therefore, administrators and teachers need to find ways for fostering academic honesty, especially in those e-learning settings where English is the medium of instruction among international students.

Keywords: *Academic dishonesty, Language learning strategies, E-learning self-efficacy, Correlation, Regression, International students*

1. Introduction

Academic dishonesty is a topic of growing concern among higher education students, teachers, and institutions (Herdian et al., 2021). Krou et al. (2021) defined academic dishonesty as “any unauthorized assistance in completing a task” (p. 427). Another definition is given by Shoaib and Ali (2020), who portrayed academic dishonesty as “a major problem,” present “in many educational systems in the world” and “increasing at a rapid rate with each passing day” (p. 62). Shoaib and Ali (2020) cited Akbulut et al. (2008) to list down different types of academic dishonesty, among which are fabrication, falsification, finagling, plagiarism, duplication, least publishable units, neglecting support, and misusing credit.

Issues like plagiarism and cheating are not only widespread at the tertiary level but also common among international university students for whom English is their second language (ESL) (Ducar & Schocket, 2018; Fatemi & Saito, 2020). Such a situation is also prevalent in Asian contexts at universities where English is the medium of instruction (Thomas, 2020). Exploring the reasons behind academic dishonesty behaviors at international universities is not an easy task. In this sense, it is important to remember that students with a first language other than English face a triple challenge at international universities: (1) acquire English as a second language, (2) learn new content in it, (3) and adjust to university life and policies, including those related to academic honesty. The first two parts of the challenge can be met by using language learning strategies (LLS). However, the third aspect could be quite difficult to overcome for students that do not understand what academic honesty policies entail.

Experts have defined language learning strategies in similar ways. Plonsky (2011) viewed second language (L2) strategies as “specific practices or techniques that can be employed autonomously to improve one’s L2 learning and/or use” (p. 994). Horwitz (2013) also defined LLS as “techniques that learners can use to improve or enhance their target language ability” (p. 274). A similar definition of language learning



strategies comes from Oxford (2018), who described them as “purposeful mental actions used by a learner to regulate his or her second or foreign (L2) learning” (p. 81).

Several studies have linked academic honesty with LLS and L2 acquisition in the context of international tertiary institutions where English is the lingua franca. Raoofi et al. (2017) conducted a study whose results suggested that ESL university students who actively used writing as one of their main language learning strategies had a higher level of L2 writing proficiency, which made it easier for them to write in the target language, follow academic writing guidelines, and avoid plagiarism. As such, undergraduate pupils pursuing a degree in international programs not only use writing in English as a language learning strategy but also as an academic exercise that demands “strategic behaviors” associated with “paraphrasing and plagiarism avoidance” (Marzec-Stawiarska, 2019, p. 115). Some researchers assert that university students, especially freshmen and sophomores, who engage in academic writing in a second language might commit plagiarism unintentionally, thus being unaware of it (Premat, 2020).

According to Muhammad (2020), academic honesty issues have increased due to the ethical challenges brought about by online learning. Spaulding (2009) acknowledged that research findings support “the theory of academic dishonesty being more prevalent in online courses than in traditional courses due to ease of accessibility of resources” by citing Carnevale (1999), Kennedy et al. (2000), and Wang (2008) (p. 195). Thailand, one of the leading countries in the educational arena in Southeast Asia, is no stranger to the pressing matter at hand. In this sense, academic dishonesty in online settings is not only common but seems to grow in the context of a global pandemic that has forced international universities across Thailand to go online (Pipattarasaku & Phoophuangpairaj, 2021).

Preventing academic dishonesty in online settings is a complex undertaking. Research across several higher education systems not only revealed the need for preventive measures to ensure academic honesty in e-learning contexts but also indicated that false results from anti-cheat software and Internet restrictions placed by teachers can be detrimental to students’ online educational experience and their relationship with instructors (Bylieva et al., 2020). Moreover, experts have recommended academic integrity e-learning training for university students as a way to stop the ever-growing wave of plagiarism present in e-learning settings (Benson et al., 2019; Nikjo et al., 2021).

A factor worth looking at is e-learning self-efficacy (ELSE), defined by Alqurashi (2016) as the “learners’ confidence in their capability” to (1) operate with computers, (2) use “the Internet to seek information,” and (3) work with learning management systems (LMS) when taking online classes (pp. 48-49). Based on Bandura’s (1977) notion of self-efficacy, Yavuzalp and Bahcivan (2019) described e-learning self-efficacy as the individual’s perception of how well he or she can perform tasks related to online learning, courses, and technologies. Also, they identified ELSE as “an important psychological factor in online learning environments” (Yavuzalp & Bahcivan, 2019, p. 32). As such, an important question to answer is whether learners’ e-learning self-efficacy is related to their practice of academic honesty.

Liu et al. (2010) conducted a study among Asian international students, exploring how they perceived academic dishonesty, online learning, and English as a second language. The results of such a study indicated that poor reading, writing, and communication skills, along with not knowing what plagiarism is, warranted the need for language learning strategies and awareness of academic honesty policies among international undergraduate students in the context of e-learning. However, Liu et al. (2010) did not explore the relationship between language learning strategies, e-learning, and academic honesty. Bista (2011) highlighted how low levels of English proficiency are associated with academic dishonesty among international students but did not consider the online setting in her study. Other studies have explored the association between language learning strategies and e-learning but have not considered the area of academic honesty (Mohammadi et al., 2011; Solak & Cakir, 2015; Yang & Wu, 2015).

Two things can be said concerning the available literature on the topic. First, although there is a vast body of research concerned with academic honesty in online educational settings and many studies have focused on the prominence of online learning, there are few to no studies on the relationship between e-learning self-efficacy and academic honesty. Second, while some studies have looked at the impact of language learning strategies on academic honesty and other surveys have explored the association between



language learning strategies and e-learning (Ahmadi, 2018; Zhou & Wei, 2018), there is scarce research on the correlation between all the three variables. Therefore, it can be stated that there is a need for looking at the relationship between language learning strategies, e-learning self-efficacy, and academic honesty among international university students, especially in the Southeast Asian context.

Academic honesty issues among international students are matters that ought to be revisited. This is even more relevant for higher education students that are finding strategies for acquiring the English language while being forced by the spread of a global pandemic to continue their tertiary education via e-learning. Moreover, e-learning self-efficacy seems to be an overlooked factor that might have an impact on academic honesty attitudes among university students (Bylieva et al., 2020). Also, teachers and administrators need to look for better ways to ensure academic honesty in the context of online learning. Thailand seems to be a perfect setting for exploring the concerns previously stated due to the country's numerous international universities (Michael, 2018), transition to online modalities in the educational arena due to the mild but continuous spread of COVID-19 (Imsa-ard, 2020), openness to welcome students from every continent, and the ever-present "concerns with academic dishonesty" (Phutikettrkit & Thomas, 2019, p. 1454).

The purpose of this study was to explore the relationship between language learning strategies, e-learning self-efficacy, and academic honesty among international students at Asia-Pacific International University (APIU). In terms of significance, the present study gives insights into students' academically dishonest behaviors in the context of online learning and second language acquisition. Also, findings show which subgroups of international students, determined by demographic variables, are more prone to engage in academic dishonesty. Lastly, the study provides information about the relationship between academic honesty, language learning strategies, and e-learning self-efficacy among APIU students. Exploring such a relationship can help teachers and administrators better understand how students relate to academic dishonesty in e-learning settings where English is the lingua franca.

2. Objectives

Based on the review of literature, the following research objectives were developed:

- 1) To determine APIU students' level of academic dishonesty, their preferred language learning strategies, and their perception of e-learning self-efficacy.
- 2) To ascertain the bivariate relationship among academic dishonesty, language learning strategies, and e-learning self-efficacy.
- 3) To assess the relationship between academic dishonesty, language learning strategies, e-learning self-efficacy, year of study, and academic major among APIU students.

3. Materials and Methods

3.1 Sample

The sample of this study was taken from Asia-Pacific International University (APIU), a private higher education institution located in Saraburi, Thailand. APIU offers international and Thai programs. Since the present research focused on international students, only pupils from the international program were asked to participate. A total of 225 respondents were involved in the study by completing the survey used to collect data.

Countries like Angola, Bangladesh, Brazil, Cambodia, Cameroon, Chile, China, Congo, Hong Kong, Hungary, India, Indonesia, Japan, Kenya, Laos, Malaysia, Myanmar, Nigeria, Philippines, Russia, Sierra Leone, South Africa, South Sudan, Sri Lanka, Sweden, United States of America, Vietnam, Zambia, and Zimbabwe were represented among the international student body. Such a culturally diverse student population is in line with the target population for this study. Also, a representation of more than 20 countries provided a varied sample.

Convenience sampling, also known as accidental sampling, was used to make the process of data collection easier. In this sense, convenience sampling is considered an efficient and practical manner in which anyone who desires to participate is welcome to do so (Gay & Mills, 2019). In terms of



demographics, the study provided information concerning the gender, class level, and major of the respondents. Concerning gender, 56% of the participants were female and 44% were male. Sorted by class level or college year, 27% were Seniors, followed by Freshmen at 26%, Juniors at 24%, and Sophomores at 23%. Categorized by major, English majors constituted 25% of the sample, followed by Business majors at 21%, and Education majors at 20%. Other majors such as Religion (11%), Nursing (8%), Science (8%), and Information Technology (7%) were thinly distributed.

3.2 Research Design

A cross-sectional survey was used to collect data among students. This is a practical approach for doing quantitative research when resources and time are scarce for carrying out a study, which was our case. Teachers were asked to distribute and collect the survey at the different faculties with international programs. Student-workers were also involved in the data collection process by administering and collecting the survey at the different dormitories on campus. The instrument was divided into three parts. The first section was an informed consent where purpose, procedures, risks, benefits, cost/reimbursement, participants' rights, confidentiality, and questions/complaints were discussed. The second section was concerned with demographic information of the respondents, including class level, gender, and major. The third section of the instrument consisted of 67 Likert-type items that measured students' level of academic dishonesty, their use of language learning strategies, and their perception of e-learning self-efficacy. Moreover, a five-point scale (1 = Never/Almost Never, 2 = Seldom, 3 = Sometimes, 4 = Often, and 5 = Always/Almost Always) was used to measure all three variables previously mentioned. Lastly, three scales were adopted to develop the third section of the research instrument.

Language Learning Strategies (LLS) Scale. The LLS scale (28 items) was adopted from Ardasheva and Tretter (2013). This scale evaluated participants' attitudes and experiences when choosing L2 strategies, thus providing insights into students' preferences and use of LLS. Some items from this scale are "I act out new English words" and "I read for fun in English." The Cronbach alpha for this scale was .95. In terms of validity, results showed that "GFI [goodness-of-fit index] and CFI [comparative fit index] met the cut-off criterion of close to .95" (Ardasheva & Tretter, 2013, p. 482), thus rendering the scale valid.

E-Learning Self-Efficacy (ELSE) Scale. The ELSE scale (22 items) was adopted from Zimmerman and Kulikowich (2016). This scale assessed respondents' attitudes and experiences toward e-learning self-efficacy. Moreover, the ELSE scale provided insights into students' perceptions of their skills in online settings. Some items from this scale are "I navigate the online grade book" and "I communicate using asynchronous technologies (discussion boards, e-mail, etc.)." The Cronbach alpha for this scale was .98. In terms of validity, "evidence of convergent and divergent validity was examined through the use of correlational techniques" with values above .40 (Zimmerman & Kulikowich, 2016, p. 188)

Academic Dishonesty (AD) Scale. The AD scale (17 items) was adopted from Eastman et al. (2008). This scale appraised students' attitudes and experiences toward academic honesty issues. Also, the scale provided valuable insights concerning participants' levels of academic dishonesty. Some items from this scale are "I fabricated or falsify a bibliography" and "I purchased or find a paper off the Internet to submit as my work." The Cronbach alpha for this scale was .87. In terms of validity, Eastman et al. (2008) acknowledged that previous studies did not yield "any confirmatory factor analysis" (p. 216).

3.3 Data Analysis

Two different software were used to collate and analyze the data—Microsoft Excel and the open-source software R, respectively. The first objective of the study was accomplished by using descriptive statistics. As such, the means, standard deviations, and 95% confidence interval for the observed variables and the individual items of the survey were calculated. The second objective of the study was accomplished by using relational statistics, namely Pearson correlation in order to ascertain the strength of the association between academic dishonesty, language learning strategies, and e-learning self-efficacy. The third and last objective of the study was accomplished by also using relational statistics, namely multiple regression, which served to determine the strength of the association between variables. In this sense, academic



dishonesty was the dependent variable while language learning strategies, e-learning self-efficacy, year, and major were the independent variables.

3.4 Ethical Considerations

The approval of the Institutional Review Board Committee was sought for the present study. As stated before, the survey used to collect data had a consent form section to comply with the Institutional Review Board regulations regarding human subject research. Furthermore, every respondent that answered the survey did so voluntarily. Lastly, the process of data collection did not put the participants' physical or mental health at risk.

4. Results and Discussion

In order to deal with the first objective of the study, descriptive statistics were employed and the following results were obtained. For academic dishonesty, APIU international students showed low levels of dishonest behavior in general ($M = 2.12$, $SD = 0.83$, 95%CI [2.01, 2.24]). For instance, students indicated they seldom "copy from another student on a test" (see Table 1 Item 1). Additionally, participants confirmed they rarely "fabricate or falsify a bibliography" (see Table 1 Item 2). Likewise, international students asserted they never or almost never "purchase or find a paper off the Internet to submit as [their] own work" (see Table 1 Item 3). However, the item with the highest mean was "I manually pass answers in an exam" (see Table 1 Item 4), which can suggest that, at times, students share information with their classmates during a test. Table one shows the means, standard deviations, and 95% confidence intervals of items from the academic dishonesty scale.

Table 1 Means, Standard Deviations, and Confidence Intervals of Academic Dishonesty (AD) Items

Item	Statement	Mean	SD	95% CI
1	I copy from another student on the test	2.01	1.09	1.85 - 2.16
2	I fabricate or falsify a bibliography	1.87	1.16	1.71 - 2.03
3	I purchase or find a paper off the Internet to submit as my own work	1.70	1.10	1.55 - 1.85
4	I manually pass answers in an exam	2.61	1.27	2.43 - 2.79

For language learning strategies, respondents indicated neutrality toward their practice of actions, thoughts, and techniques that would be beneficial for acquiring English as a second language ($M = 3.36$, $SD = 0.57$, 95%CI [3.28, 3.45]). The most preferred language learning strategies among college students were those related to observation and self-assessment. For example, participants claimed they often "listen well (carefully) when people speak in English" (see Table 2 Item 1) and "look for ways to be a better student of English" (see Table 2 Item 2). Moreover, students indicated they "see [their] English mistakes and try to do better" (see Table 2 Item 3). Among all the strategies referred to in this scale, "I use flashcards to learn new words in English" scored the lowest (see Table 2 Item 4). Table two contains the means, standard deviations, and 95% confidence intervals of items from the language learning strategies scale.

Table 2 Means, Standard Deviations, and Confidence Intervals of Language Learning Strategies (LLS) Items

Item	Statement	Mean	SD	95% CI
1	I listen well (carefully) when people speak English	3.95	0.96	3.82 - 4.08
2	I look for ways to be a better student of English	3.97	0.95	3.85 - 4.10
3	I see my English mistakes and try to do better	4.05	1.08	3.92 - 4.17
4	I use flashcards to learn new words in English	2.48	1.11	2.32 - 2.64

For e-learning self-efficacy, participants demonstrated a neutral stance in relation to their perceptions of e-learning self-efficacy ($M = 3.42$, $SD = 0.61$, 95%CI [3.34, 3.51]), suggesting these skills are practiced only sometimes. However, despite the neutrality students showed, some e-learning skills



scored slightly higher than others in terms of frequency. Some examples are: “I learn to use a new type of technology efficiently” (see Table 3 Item 1), “I search the Internet to find the answer to a course-related question” (see Table 3 Item 2), and “I submit assignments to an online dropbox” (see Table 3 Item 3). The fact that international students referred to “I use the library’s online resources efficiently” (see Table 3 Item 4) as their least practiced e-learning skill is noteworthy.

Table 3 Means, Standard Deviations, and Confidence Intervals of E-Learning Self-Efficacy (ELSE) Items

Item	Statement	Mean	SD	95% CI
1	I learn to use a new type of technology efficiently	3.70	0.98	3.56–3.83
2	I search the Internet to find the answer to a course-related question	3.82	1.04	3.67–3.96
3	I submit assignments to an online dropbox	3.83	1.12	3.67–3.99
4	I use the library’s online resources efficiently	2.88	1.12	2.73–3.04

To address the second objective of the study, relational statistics were used. The Pearson Product Correlation was calculated for academic dishonesty, language learning strategies, and e-learning self-efficacy to ascertain the bivariate relationship between these variables. There was no significant relationship between e-learning self-efficacy and academic dishonesty ($r = .02$, $n = 225$, $p > .05$, 95% CI [-.11, .15]). However, there was a significant weak relationship between language learning strategies and academic dishonesty ($r = .16$, $n = 225$, $p < .05$, 95% CI [.03, .29]). Lastly, there was a mild relationship between language learning strategies and e-learning self-efficacy ($r = .58$, $n = 225$, $p < .01$, 95% CI [.49, .66]). A scatter plot was developed to illustrate such a relationship.

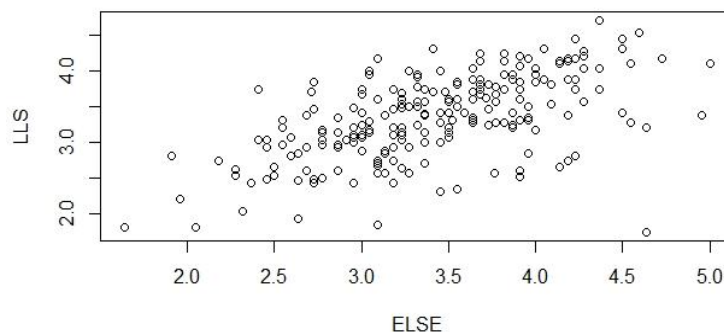


Figure 1 Scatter Plot of E-Learning Self-Efficacy (ELSE) and Language Learning Strategies (LLS)

The third and last objective of the research was accomplished by the use of multiple regression analysis, which explained the relationship between academic dishonesty as the dependent variable and language learning strategies, e-learning self-efficacy, year of study, and academic major as the independent variables. The regression results indicated that the four independent variables explained 15% of the variance ($R^2 = .15$, $F(12,212) = 3.18$, $p < .01$, $R^2_{adjusted} = .10$). It was found that language learning strategies significantly explained the variance of academic dishonesty ($\beta = .36$, $p < .01$). Another important finding is that the variable year of study was an important predictor of academic dishonesty, with Junior ($\beta = .33$, $p < .05$), Senior ($\beta = .34$, $p < .05$), and Sophomore ($\beta = .48$, $p < .01$) classes being the ones with a strong link to academic dishonesty. Also, nursing as an academic major was the strongest factor associated with academic dishonesty among international students at APIU. Lastly, e-learning self-efficacy was not an explanatory variable of academic dishonesty ($\beta = -0.16$, $p = 0.14$). Table 4 exhibits the regression results.

**Table 4** Regression Results

Predictor	<i>b</i>	<i>b</i>		<i>sr</i> ²	<i>sr</i> ²		Fit
		95% CI	[LL, UL]		95% CI	[LL, UL]	
(Intercept)	1.19**	[0.46, 1.93]					
LLS	0.36**	[0.13, 0.60]		.04	[-.01, .08]		
ELSE	-0.16	[-0.38, 0.06]		.01	[-.01, .03]		
Year Junior	0.33*	[0.02, 0.63]		.02	[-.01, .05]		
Year Senior	0.34*	[0.04, 0.65]		.02	[-.01, .05]		
Year Sophomore	0.48**	[0.16, 0.79]		.04	[-.01, .08]		
Major Education	0.48**	[0.16, 0.79]		.04	[-.01, .08]		
Major English	-0.27	[-0.59, 0.06]		.01	[-.01, .03]		
Major Info Tech	-0.02	[-0.33, 0.30]		.00	[-.00, .00]		
Major Nursing	-0.24	[-0.70, 0.22]		.00	[-.01, .02]		
Major Religion	0.80**	[0.35, 1.26]		.05	[-.00, .10]		
Major Science	0.15	[-0.24, 0.54]		.00	[-.01, .01]		
	-0.15	[-0.60, 0.29]		.00	[-.01, .01]		R ² = .147** 95% CI [.03, .19]

In relation to the first objective of the study, several findings should be discussed. First, international students at Asia-Pacific International University showed low levels of academic dishonesty in the context of e-learning and language acquisition. This is not in agreement with several studies that have highlighted that ESL students at international universities tend to engage in academic dishonesty due to their low levels of English proficiency (Fatemi & Saito, 2020; Parnter, 2022).

On the other hand, the fact that students admitted to “manually pass[ing] answers in an exam” to their friends and classmates show how important it is for the university to conduct seminars, implement policies, and carry out academic discipline among those who see helping others to cheat as acceptable behavior. In this sense, it is important to remember that collectivist societies, like the ones in Southeast Asia, do not consider helping others to do an individual assignment or get a good grade on a final exam as something dishonest (Thompson et al., 2017).

A second finding related to the study’s first objective was that respondents preferred language learning strategies that involved observation and self-assessment. In this sense, items like “I listen well (carefully) when people speak English,” “I look for ways to be a better student of English,” and “I see my English mistakes and try to do better” are, according to Ardasheva and Tretter (2013) metacognitive strategies. Previous research has suggested that international undergraduate students favored metacognitive strategies over memory, compensation, affective, and social strategies (Bin-Hady et al., 2020).

A third finding related to the study’s first objective was that students indicated to be mostly neutral toward their e-learning self-efficacy perceptions. A study conducted at a large public university in Thailand showed different results, suggesting that ESL learners participating in the study indicated high levels of e-learning self-efficacy, which directly contributed to their preparation for taking online courses (Ramsin & Mayall, 2019). Also linked to the second research objective is the fact that “I use the library’s online resources efficiently” was the ELSE item that scored the lowest among APIU international students. Such a result may evince a lack of preparation for online courses that require

In relation to the second objective of the study, two findings were prominent. First, a mild relationship between language learning strategies and e-learning self-efficacy was found. Such a result from the study points out how international students see technology and language acquisition as important aspects of their academic journey. Moreover, such a finding is in agreement with studies that looked at the association between e-learning and L2 acquisition (Ahmadi, 2018; Zhou & Wei, 2018).

Second, the notion that language learning strategies had a weak yet significant relationship with academic dishonesty is noteworthy. This finding was confirmed by regression results, which showed that the independent variable language learning strategies were a predictor, although not strong, of academic



dishonesty is something teachers and administrators need to consider. Such a finding gives the idea that students who actively engage in the use of techniques and procedures to acquire the target language might also participate in academically dishonest behavior. In this context, teachers have the responsibility to draw a line and help learners identify what is acceptable and what is not when it comes to using language tools for succeeding at the tertiary level.

The last two findings are concerned with the third objective of the study, which was to explore the relationship between academic dishonesty, language learning strategies, e-learning self-efficacy, year of study, and academic major among APIU students. Concerning the variable academic major, nursing students were associated with academic dishonesty. However, it is important to point out that this is one of the programs with the least number of students since it started in 2021. As such, the strong association between nursing students and academic dishonesty might be due to the size of this subgroup.

In relation to the variable year of study, it was found that Junior, Senior, and Sophomore students have a significant relationship with academic dishonesty. This is a troubling fact because Freshmen scored lowest in terms of academic dishonesty levels. Two things could be inferred from this finding. First, international students tend to lower their standards of academic honesty after their first year at the tertiary level due to the pressure that comes with adjusting to a new setting with higher academic expectations than high school. Second, the university does not have high standards of academic honesty, which indirectly encourages students to commit plagiarism, cheat during examinations, and incur other forms of academic dishonesty.

5. Conclusion

Several recommendations can be given based on the results of the present study. For students, it would be beneficial to learn to use the library's online resources effectively. In this sense, learning to find books and articles online is an important part of the research process, especially when it comes to preparing an essay or a term paper. Much of the stress students go through when working on a secondary-source research paper could be associated with not being able to efficiently utilize online resources. Asia-Pacific International University offers free access to its online library resources, which include several full-text databases. Learning where, how, and what to search for can be advantageous for international students' academic journey.

Another recommendation is for teachers to give assignments, projects, and even exams focused on the two-fold purpose of using technology and learning English as a second language. Involving technology use with second language acquisition will not only help students be more proficient in the target language but also teach them how technology can be a powerful tool used to benefit their academic journey. In this sense, teachers are responsible for explaining in which ways technology should not be used, thus helping students avoid academic dishonesty. Moreover, teachers should clarify to students what is acceptable and what is not when it comes to using language learning strategies for acquiring the English language. In other words, L2 strategies and academic honesty policies need to be clearly explained in the classroom so students have no excuse for using a friend's help on a paper or exam as a learning strategy. Teachers are responsible for clearly delineating how students can rely on each other for acquiring the target language without engaging in academic dishonesty.

The third recommendation involves administrators. The leadership of the school would benefit from researching the possible factors that might be involved in making Sophomores the most likely subgroup to engage in academic dishonesty. Perhaps, a careful revision of the curriculum and the study load international students carry in their second year could shed some light on this issue.

Lastly, regarding the further study, three suggestions can be given. First, it would be valuable to include academic stress as one of the factors related to academic dishonesty. The reason for this is that previous research has associated academic dishonesty with academic stress (Maykel et al., 2018; Mildaeni et al., 2021). Furthermore, although the present study involved a culturally diverse sample of international students, culture was not incorporated in the study as a variable that could predict academic dishonesty,



which is something other studies have done (Payan et al., 2010; Thompson et al., 2017). Consequently, a second suggestion would be to consider the cultural element in future research.

The present study focused on collecting and analyzing data from only one international university. This could be considered a limitation of the study in terms of generalizability. Therefore, a third suggestion would be to include other international universities in the sample, which could lead to more encompassing conclusions directed at the population of international students in Thailand and Southeast Asia.

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