Indonesian University Learners' Academic Procrastination: Interactions with Attitudes toward Cheating, Absenteeism, and L2 Achievement

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ABSTRACT

Background. Many studies suggested that academic procrastination is particularly prevalent among learners at the university level. Despite that, empirical data on the interactions between academic procrastination and, respectively, learners' attitudes towards cheating (AtC), absenteeism, and learning achievement, are either generally inconclusive or non-existent, especially in the English as Foreign Language (EFL) literature. Hence, it could be worthwhile to conduct a study contemplating these issues in the Indonesian EFL context, home to one of the largest EFL learners in the world.

Purpose. The present study was conducted to investigate the academic procrastination of Indonesian EFL learners at university level and the interactions of these learners' procrastination with their AtC, absenteeism, and second/foreign language (L2) achievement.

Method. The study employed an online survey method and 164 learners from non-English departments participated in this study.

Results. Through descriptive statistics, it was found that the participants reported a moderate level of procrastination in English class. Furthermore, this study found that learners' procrastination significantly and positively correlated with their AtC and absenteeism. This indicated the more learners procrastinated, the higher their approval toward cheating behaviours and the more likely they were absent in the English class. The predictive power of learners' procrastination was at 16.4% on AtC and at 8.3% on absenteeism. Moreover, the study also found a significant, negative, and moderate relationship between learners' procrastination and their L2 achievement with learners' procrastination being able to predict 16.5% of the total variance in L2 achievement.

Conclusion. Teachers are suggested to promote project-based tasks in groups where learners' step-by-step progress is continually monitored, given feedback, and rewarded. This could discourage procrastination, absenteeism, as well as cheating behaviours, and potentially promote more optimal L2 achievement.

KEYWORDS

English as Foreign Language (EFL), academic procrastination, attitudes toward cheating, absenteeism, second/foreign (L2) achievement

INTRODUCTION

Etymologically, the term «procrastination» comes from the Latin word «procrastinate-» meaning «differed till the morning». Procrastination happens in people's daily life, including in academic environments where learners postpone working on or completing academic tasks (Alexander & Onwuegbuzie, 2007), hence the term academic procrastination. Academic procrastination is a form of situational procrastination in which learners intentionally delay or defer works that must be completed (Schraw et al., 2007). Learners doing academic procrastination may be conscious or unconscious that they are engaging in such behaviour (Janssen, 2015). Whilst academic procrastination may happen among learners from all levels of education (Swaraswati et al., 2017), this phe-

nomenon is prevalent among learners at the university level (Gonda et al., 2021; Yurtseven & Doğan, 2019).

Interactions between Academic Procrastination and Learning Achievement

There seems to be a debate over whether procrastination merely has detrimental effects or it may have functional effects. Several researchers stated that procrastination does not always influence learning in a negative way (Cao, 2012; Chu & Choi, 2005). Chu and Choi (2005) argued that procrastinators can be categorised into active and passive procrastinators. Whilst the passive ones tend to postpone working on tasks unintentionally, the active ones delay working on tasks because they know they work better under pressure (Chu & Choi, 2005). In other words, despite seemingly delaying working on tasks, these active procrastinators have control of their tasks and have intentions of performing satisfactorily and meeting the given deadlines (Chu & Choi, 2005). In a similar vein, a study involving learners from undergraduate and graduate levels by Cao (2012) reported that some participants identifying themselves as procrastinators procrastinated because they felt confident with their abilities to obtain satisfactory results despite procrastinating, suggesting they did not lose control of their work. A study by Babadoğan (2010) in Turkey reporting a non-significant association between procrastination and achievement may indirectly give some kind of support to the claim of these aforementioned researchers.

Despite the aforementioned claim on the possible functional effect of procrastination, many studies suggested its detrimental effects. Several studies investigated the possible relationship between academic procrastination and L2 achievement in several different contexts such as in Turkey, Iran, and China (Akpur, 2017; Aydoğan & Akbarov, 2018; Kafipour & Jafari, 2021; Korkmaz et al., 2018; Yurtseven & Akpur, 2018; Zhang & Zhang, 2022) suggesting negative associations between procrastination and academic achievement. A study involving 211 Turkish university learners by Akpur (2017) found a significant, negative association between learners' academic procrastination and L2 achievement, r (209) = -.58 p < .05. In a similar vein, another study in a Turkish context by Yurtseven and Akpur (2018) also reported a significant negative association between the two variables, albeit in a weak level (r = -.28, p < .01). Slightly similar in findings, a recent study by Zhang and Zhang (2022) in China reported that learners' academic procrastination had a significant negative effect on the readability of their L2 writing. This indicated that the more learners procrastinated, the readability of their writing tended to decrease, suggesting lower quality. Moreover, a recent study involving L2 learners of English from a medical department by Kafipour and Jafari (2021) even reported that learners' procrastination contributed to 90.8% of the total variance in the learners' L2 writing performance.

The aforementioned last two paragraphs highlight the contrasting views and findings on association as well as the causal relationship between academic procrastination and achievement. Therefore, more studies investigating the effects of academic procrastination on achievement are necessary. Moreover, in the Indonesian L2 context, home to the second largest English as Foreign Language (EFL) learners after China, such studies are still very limited, if not non-existent.

Possible Factors Affecting Academic Procrastination

There are several contributing factors or antecedents of academic procrastination. One of them is task aversiveness, referring to actions learners find unpleasant (Steel, 2007). Learners try to avoid aversive stimuli and as such, they try to avoid them, for instance by procrastinating. Despite learners disliking a certain task could be attributed to various personal characteristics such as motivation, when they do find a task not appealing or even unpleasant, the more likely they delay working on it (Steel, 2007). Furthermore, teachers could also be antecedents of academic procrastination (Schraw et al., 2007). Teachers expecting less, those with whom learners can negotiate deadlines and who are not strict with grading could unintentionally promote procrastination. In comparison, learners are less likely to procrastinate knowing their teachers expect good-quality work (Schraw et al., 2007). Furthermore, several studies also reported the role of gender in affecting procrastination (Balkis & Duru, 2017; Roy & Banerjee, 2022; Zhou, 2018). A study in Turkey by Balkis and Duru (2017), for example, reported that male learners had a higher level of academic procrastination than female ones.

Interestingly, recent studies suggested that the use of the internet contributes to academic procrastination (Herdian & Zamal, 2021; Mohammadi et al., 2015; Wulandari et al., 2021). A study involving 30 Iranian learners of English by Mohammadi et al. (2015) found a medium positive relationship between internet use and academic procrastination, suggesting that the more the participants used the internet, the higher the tendency to procrastinate. Furthermore, two studies in general education in Indonesia also reported that learners procrastinated more during the Covid-19 pandemic-driven online learning (Herdian & Zamal, 2021; Wulandari et al., 2021). Herdian and Zamal (2021) further reported that learners' procrastination was at a moderate level. These aforementioned findings suggested that the internet often seen as an incredible source of learning could also pose as distractions for learners (Satsevich et al., 2021) for example if they access social media and entertainment sites when they are supposed to join an online class or working on certain tasks. For this reason, conducting a study about procrastination in an online learning context can be very useful for further studies in the field of procrastination in an online environment.

Cheating and Absenteeism: Potential Interactions with Academic Procrastination

Several studies, albeit quite limited in number, seem to be interested in the possible association between academic procrastination and academic dishonesty such as cheating. From the perspective of learning, cheating, for the cheating learners, serves as a cognitive shortcut (Anderman & Murdock, 2007). As effective teaching requires learners to use self-regulatory as well as complex cognitive strategies, cheating is seen by cheating learners as a way to preclude these needs (Anderman & Murdock, 2007). Intuitively, cheating may closely be related to task aversiveness contributing to procrastination. Outside the L2 context, Oktaria et al. (2021) in their study involving learners from a medical department in Indonesia argued that academic procrastination is one of contributing factors to academic dishonesty, including cheating behaviours. However, their study eventually reported that there was no association between learners' academic procrastination with academic dishonesty. In comparison, a study in Iran by Saracaloğlu et al. (2021) reported that graduate and undergraduate learner participants' academic procrastination correlated positively and moderately with their attitude toward cheating. From this, it could be seen that the relationship between procrastination and cheating has not been firmly established. Hence, it could be strategic to investigate the association between the two.

Another phenomenon quite widely happening in various L2 learning contexts is absenteeism (Al-Mekhlafi, 2016; Subekti, 2020). A study involving Indonesian English teachers by Subekti (2020) reported the teacher participants' frustration with the high level of absenteeism among learners. Learners were reported to skip classes albeit teachers' efforts in reminding them and albeit knowing the consequences on their grades (Subekti, 2020). A study in Yemen by Al-Mekhlafi (2016) also reported teachers' discontent with learners' attendance and motivation in joining the English class. Absences could make learners be lagging behind their peers and have fewer opportunities to obtain complete class content (Al-Mekhlafi, 2016) and this may stimulate task aversiveness leading to procrastination. Hence, it could be worthwhile to conduct a study investigating the association between procrastination and absenteeism considering such studies are still rare in literature.

Considering the aforementioned rationales, this study intends to answer the following research questions. First, what is Indonesian university learners' level of academic procrastination in online English classes? Second, what is the relationship between learners' level of procrastination and, respectively, their attitudes toward cheating, absenteeism, and L2 achievement?

Conducting a study with the aforementioned research objectives in the relatively under-researched Indonesian L2 context could generally contribute to pave a way for future studies on procrastination concerning other relevant components in L2 learning in the online learning environment.

METHOD

Research Design

The study used a quantitative design by distributing an online Google Form questionnaire. The use of a quantitative design in this study was attributed to several factors. First, a large number of research studies on procrastination were conducted quantitatively (Akpur, 2017; Aydoğan & Akbarov, 2018; Babadoğan, 2010; Korkmaz et al., 2018; Luján et al., 2021; Zhang & Zhang, 2022), suggesting the popularity in the field of procrastination across various contexts. Secondly, considering the scarcity of such studies in the Indonesian L2 context, conducting a quantitative study may produce generalisable data to pave a way for further relevant studies in the Indonesian L2 context.

The online questionnaire used in the study consisted of several parts, explanations about the purpose of the study, consent forms, demographic information, eight questionnaire items on attitude toward cheating (AtC) in English class, and ten questionnaire items on academic procrastination in English class. The eight questionnaire items on AtC were adapted from a study by Carpenter et al. (2006) with necessary adjustments to fit the L2 context of the present study. Likewise, the ten questionnaire items on academic procrastination, which would be the focus of the present study, were adapted from the Pure Procrastination Scale developed by Lien et al. (2014) in the field of psychiatry. For example, "I delay making decisions until it is too late" in the original questionnaire was modified into "Related to assignments from English class, I delay making a decision until it is too late" to help the participants contextualise their responses to the English class context. Four possible responses were available, "Strongly agree" (converted into 5 points), "Agree" (4 points), "Disagree" (2 points), and "Strongly disagree" (1 point). In the present study, the questionnaires on AtC produced .86 Cronbach's alpha coefficient and .86 McDonald's omega coefficient, indicating high internal reliability. Similarly, the questionnaires on academic procrastination produced .88 Cronbach's alpha coefficient and .89 McDonald's omega coefficient, indicating high internal reliability.

Research Setting and Participants

The research setting was General English (GE) classes Levels 1, 2, and 3 at a private university in Java, Indonesia. GE classes were non-credited matriculation classes taken by learners from various non-English departments. At the time of learners' registration to the university, they took a placement test to determine at which level they should start their language matriculation. They were required to pass GE

Level 3 to be able to take a credited English for Academic Purposes (EAP) class in their respective departments. Each level consisted of 16 meetings taken a semester-long. At the time of data collection, the meetings were conducted online and most of these meetings were conducted synchronously through the Zoom platform with a 75-minute duration each. Additionally, some 500 learners enrolled in GE classes, with the majority of them taking Level 3.

From these 500 enrolling learners, 164 learners participated in the present study. Of these learners, 79 (48.2%) were males and 85 (51.8%) were females, with a maximum age of 22 and a minimum of 16 (M = 19.27). 118 (72%) were learners at GE Level 3, 40 (24.4%) were at GE level 2, and 6 (3.7%) were at GE Level 1. As the GE classes were conducted online, at the time of data collection these participants resided in various islands or regions. 124 participants (75.6%) resided in Java, 11 (6.7%) in Nusa Tenggara, 10 (6.1%) in Sumatera, 8 (4.9%) in Kalimantan, 5 (3%) in Papua, 3 (1.8%) in Sulawesi, 1 (0.6%) in Bali, and 2 (1.2%) in other islands or regions. They were from eight different departments and the details can be observed in Table 1.

Ethical Consideration

The study did not obtain any ethical clearance as there was no ethics committee at the university at which I work prior to the data collection. However, this study faithfully employed several principles of research ethics. First, autonomy or voluntary participation was maintained through the distribution of a consent form (Cascio & Racine, 2018) to be completed by the prospective participants in the first part of the online questionnaire. The consent form detailed the purposes of the study, the expectations of the participants and their rights including that of being able to withdraw their participation at any time. This was to ensure that the participants understood the study before participating in it (Farrow, 2016; Weinbaun et al., 2019). Additionally, of 164 participants, 63 (38.4%) expressed their willingness to be invited for interviews shall follow-up studies were required, in-

dicating the fairly high enthusiasm of the participants to participate in the present study. The other 161 (61.6%) were not willing to be involved in any follow-up studies, demonstrating autonomy. Furthermore, the principle of beneficence or maximising the benefits for the participants (Weinbaun et al., 2019) was adhered through making the questionnaire as simple and easy to complete as possible. Monetary rewards were also given to some randomly selected participants as a token of gratitude. Finally, the study also employed the principle of confidentiality (Ramrathan et al., 2016). Though the participants were required to write their names when filling out the questionnaire, these names were kept confidential and were not publicised in the report.

Data Collection and Analysis

The data collection was conducted in the second semester of the 2021/2022 academic year. After the permission to conduct the study was granted from the Head of the Language Centre, the organiser of the GE classes, the link of the online questionnaire was shared to learners taking GE classes by GE class teachers in their respective class *WhatsApp* groups and Learning Management System (LMS). The online questionnaire distribution was conducted from 9 May 2022 up to 27 May 2022. The questionnaire data were then downloaded in an Excel file and moved to SPSS 25 for further analysis. The data on the final grades and the total absences of the participating learners were obtained from the course secretary at end of the semester. These data were recorded to SPSS 25 per the names of the participants.

After all the necessary data had been recorded in SPSS 25, several procedures of data analysis were employed. First, descriptive statistics were employed to answer the first research question on learners' level of academic procrastination in English class. The data were presented in the form of mean scores and percentages. Before parametric tests were performed, the data were tested for normality and homoscedasticity. After all the variables were found to be normally distributed *(p > .05)*, homoscedasticity tests were per-
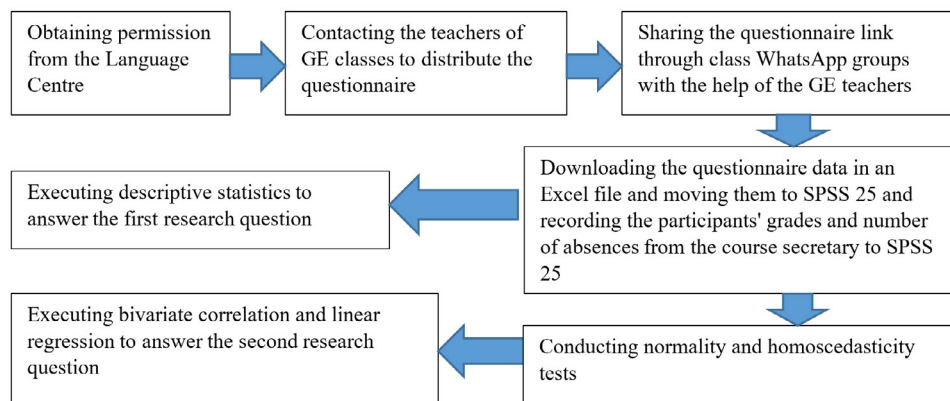
Table 1

The learner participants' departments

No	Departments	Number of participants	Percentages (%)
1.	Accounting	23	14.0
2.	Architecture	24	14.6
3.	Biology	9	5.5
4.	Product design	5	3.0
5.	Informatics	33	20.1
6.	Medical	10	6.1
7.	Management	54	32.9
8.	Information System	6	3.7

Figure 1

The flow of data collection and analysis

formed and all the dependent variables, AtC, absenteeism, and L2 achievement had homoscedasticity. Next, bivariate correlation and bivariate (linear) regression formulas were employed to answer the second research question on the relationship between learners' procrastination and these components, AtC, absenteeism, and L2 achievement. The sequence of data collection and data analysis can be seen in Figure 1.

RESULTS

Learners' Academic Procrastination in Online English Class

The composite mean score of the ten questionnaire items on procrastination was 25.54 on a scale of 10 up to 50 *(SD = 7.75)*, indicating that generally, the learner participants reported a moderate level of procrastination behaviours in English class. The detailed results in each of the items can be observed in Table 2.

As seen in Table 2, of the ten questionnaire items on academic procrastination, items 4, 6, and 8 produced the highest mean scores. Item 4, «When working on assignments from English class, I often waste time by doing other things» produced the third highest mean score, at 2.90 on a scale of 1 up to 5, obtaining the agreement from 78 participants (47.6%). Then, item 6, "I often find myself performing tasks that I had intended to do days before" produced the highest mean score, at 3.12, with 91 participants (55.5%) agreeing with the statement. Next, item 8, "I generally delay before starting on work I have to do" produced the second highest mean score, at 3.02. 85 participants (51.8%) agreed with the statement.

The Relationship between Learners' Procrastination and Their Attitudes toward Cheating (AtC), Their Absenteeism, and L2 Achievement

The findings on learners' AtC, absences, and L2 achievement are as follows. First, the mean score of the learner participants' AtC obtained from eight items on AtC was 16.46 on a scale of 1-40, suggesting generally lower AtC or disapproval toward cheating behaviours. Second, the mean score of learners' grades was 78.62 on a scale of 0-100, indicating that they generally had fairly good L2 achievement as measured by their grades. In terms of the total absences in GE classes, the mean score was .79 with the maximum of absences being six times, and the minimum being zero (always present) *(SD = 1.22)*, suggesting that learners generally demonstrated diligence in attending the GE classes.

The results of the bivariate correlation formula on the relationship between learners' procrastination and other components - AtC, absenteeism, and L2 achievement, can be seen in Table 3.

As seen in Table 3, learners' academic procrastination positively correlated with learners' AtC and absenteeism, and negatively correlated with learners' L2 achievement. All three associations were statistically significant. The more learners procrastinated, the more favourable attitude toward cheating they had *(r = .41, p< .01)*. The more they procrastinated, the higher the number of absences they had *(r = .29, p < .01)*. Lastly, the more they procrastinated, the lower their L2 achievement tended to be *(r = -.41, p< .01)*.

Furthermore to see to what extent learners' procrastination impacted their AtC, absenteeism, and L2 achievement, bivariate linear regression formulas were employed with learners' procrastination as the independent variable. Table

Table 2

Learners' academic procrastination in English class

No	Statement	Mean Scores	Standard Deviation (SD)	Strongly agree (%)	Agree (%)	Disagree (%)	Strongly disagree (%)
1.	Related to assignments from English class, I delay making a decision until it is too late.	2.20	.97	0.6	18.3	62.8	18.3
2.	Even after I make a decision related to assignments in English class, I delay acting upon it.	2.17	.93	1.2	15.2	66.5	17.1
3.	I waste a lot of time on trivial matters before getting to the final decisions.	2.75	1.22	4.9	36.6	45.7	12.8
4.	When working on assignments from English class, I often waste time by doing other things.	2.90	1.22	5.5	42.1	41.5	10.9
5.	Even assignments that require little else except sitting down and doing them, I find that they seldom get done for days.	2.32	1.10	2.4	22.0	56.1	19.5
6.	I often find myself performing tasks that I had intended to do days before.	3.12	1.19	7.3	48.2	37.8	6.7
7.	Related to assignments from English class, I am continually saying "I will do it tomorrow or another time".	2.77	1.15	4.3	36.0	51.8	7.9
8.	I generally delay before starting on work I have to do.	3.02	1.20	6.7	45.1	39.6	8.6
9.	I do not get things related to English class done on time.	2.17	1.01	1.2	17.7	59.1	22.0
10.	I am not very good at meeting deadlines in English class.	2.13	1.03	1.2	17.7	54.9	26.2

Table 3

Bivariate correlation between learners' procrastination and other components – learners' AtC, absenteeism, and L2 achievement

		Learners' AtC	Learners' absenteeism	Learners' L2 achievement
Learners' academic procrastination	Pearson Correlation	.405**	.289**	-.407**
	Sig. (2-tailed)	.000	.000	.000
	N	164	164	164

*Note. **. Correlation is significant at the 0.01 level (2-tailed).*

4 shows the model summary of the bivariate linear regression results with learners' AtC as the dependent variable.

From Table 4, it can be inferred that learners' academic procrastination impacted 16.4% of the total variance in learners' AtC, R^2 = .16, F (1, 162) = 31.88, p < .001. Other variables accounting for the rest 83.6% were outside the formula. Furthermore, academic procrastination significantly predicted learners' AtC, β = .29, t = 5.65, p < .001).

Table 5 shows the model summary of the bivariate linear regression results with learners' absenteeism as the dependent variable. As seen in Table 5, the study found that

learners' academic procrastination could predict 8.3% of their absences in English classes, R^2 = .08, F (1, 162) = 14.75, p < .001. Furthermore, academic procrastination significantly predicted learners' absenteeism, β = .05, t = 3.84, p < .001).

Finally, Table 6 shows model summary of the bivariate linear regression results with learners' L2 achievement as the dependent variable where it can be seen that learners' academic procrastination could predict 16.5% of their L2 achievement, R^2 = .17, F (1, 162) = 32.09, p < .001.

Learners' academic procrastination significantly predicted learners' L2 achievement, β = -.92, t = -.58, p < .001).

Table 4

Regression results with learners' AtC as the dependent variable

Model	R	R Square	Adjusted R Square	Std. E
1	.405[a]	.164	.159	4.99882

Note. a. Predictors: (Constant), Learners' procrastination

Table 5

Regression results with learners' absenteeism as the dependent variable

Model	R	R Square	Adjusted R Square	Std. E
1	.289[a]	.083	.078	1.174

a. Predictors: (Constant), Learners' procrastination

Table 6

Regression results with learners' L2 achievement as the dependent variable

Model	R	R Square	Adjusted R Square	Std. E
1	.407[a]	.165	.160	16.11405

a. Predictors: (Constant), Learners' procrastination

DISCUSSION

Learners' Academic Procrastination in Online English Class

The present study found a moderate level of academic procrastination among learners from non-English majors. This finding was in line with the findings of recent studies (Herdian & Zamal, 2021; Zhang & Zhang, 2022). A moderate level of procrastination was found in a study by Herdian and Zamal (2021) involving 305 Indonesian pre-service teachers from various departments in a general education context and a study by Zhang and Zhang (2022) involving 55 Chinese learners of English. The similarity could indicate that a certain degree of procrastination happened among university learners regardless of subjects and learning contexts. These findings also confirm the reiteration of several authors stating the prevalence of procrastination among learners at the university level (Gonda et al., 2021; Yurtseven & Doğan, 2019).

Furthermore, learners in the present study also reported that they got distracted by other things whilst working on assignments and ended up delaying the work they were supposed to do before. Aside from various intrinsic factors such as learners' level of motivation, this could be attributed to various external factors. In Iran, Mohammadi et al. (2015) found a moderate positive correlation between learners' use of the internet and academic procrastination, suggesting that the internet could be a factor distracting learners from working on their tasks promptly. In the online learning context of the present study where learning was highly dependent on the use of the internet, learners may have been tired of using the internet for educational purposes all the time. As such, the temptation to use it for entertainment, for example accessing social media and entertaining posts, may arise. A study involving school learners by Wulandari et al. (2021) also reported procrastination among learners was quite widespread during the Covid-19-driven online learning. Besides this, the limited interaction between teachers and learners during online learning may worsen the situation as low-achieving learners may be lagging behind their peers with limited opportunities to ask for help from teachers and peers. In turn, they decided to procrastinate due to task aversiveness (Steel, 2007).

The Relationship between Learners' Procrastination and Their Attitudes toward Cheating (AtC), Their Absenteeism, and L2 Achievement

The study found that learners' academic procrastination could predict 16.4% of their AtC with a statistically significant, moderate and positive association between the two variables. This finding was different from a finding of a study by Oktaria et al. (2021) at a medical faculty where they found no association between the two variables. The finding was in line with a finding of a study in Iran by Saracaloğlu et al. (2021) involving 357 learners from both graduate and undergraduate levels at various departments. They reported that the participants' academic procrastination correlated positively and moderately with their AtC. The similarity between the finding of the present study conducted in an L2

context and that of a study by Saracaloğlu et al. (2021) conducted outside the L2 context may give some kind of early picture of the direction of interaction between academic procrastination and AtC. Intuitively speaking, procrastinating learners may find themselves having limited time left to complete tasks because they delay working on the tasks until much later. In such situations, they may be tempted to take cognitive shortcuts such as cheating to not miss the deadline. Needless to say, however, more empirical studies in L2 learning contexts are needed to establish the interactions between the two variables in the field of L2 learning.

Furthermore, it was found that learners' academic procrastination could predict 8.3% of absences with a statistically significant, weak and positive association between the two variables. When learners procrastinated due to certain reasons, their understanding of materials may not be optimal. This could lead to avoidance behaviours such as skipping classes because of fear of unpleasant experiences. To put it in another way, procrastination may lead to negative feelings toward the class eventually leading to absences. The finding of this study could provide an early empirical 'picture' of the interaction between learners' academic procrastination and their absences in L2 classes. That is considering the rarity of such studies in the literature, let alone L2 literature despite absenteeism having been a frequently reported issue in studies in various English as L2 learning contexts (Al-Mekhlafi, 2016; Nizar & Flah, 2014; Subekti, 2020).

Moreover, the study also found that learners' academic procrastination could predict 16.5% of their L2 achievement with a statistically significant, moderate, and negative association between the two variables. This finding conformed with the findings of several previous studies suggesting the negative association between the two variables albeit to different degrees (Akpur, 2017; Aydoğan & Akbarov, 2018; Kafipour & Jafari, 2021; Korkmaz et al., 2018; Yurtseven & Akpur, 2018; Zhang & Zhang, 2022). Kafipour and Jafari (2021), for example, found that learners' procrastination could predict a staggering 90.8% of the total variance in L2 writing achievement whilst two studies in Turkey found a weak to moderate association between procrastination and L2 achievement (Akpur, 2017; Yurtseven & Akpur, 2018). These varieties may be attributed to the nature of the assessment composing the L2 achievement. In the present study and the two studies in Turkey (Akpur, 2017; Yurtseven & Akpur, 2018), the L2 achievement variable was comprised of various types of language assessments. In comparison, the achievement variable in the study by Kafipour and Jafari (2021) was specific in L2 writing. In addition, in the present study, the participants' level of interest in the English class and their level of motivation in joining such non-credited yet mandatory GE classes in the present study may be at play in explaining why their procrastination could a certain degree negatively affect their L2 achievement.

Despite the findings and possible contributions of the present study, limitations should be acknowledged. The first and foremost limitation is the nature of the self-report questionnaire in the study carries the consequence that the quantitative findings were solely based on the participants' honesty (and possibly dishonesty) in responding to the questionnaire items. Second, this quantitative study did not account gender differences as a possible contributing factor in the equations. Hence, the results may be seen with gender differences as a possible confounding factor in mind. Furthermore, previous studies on the association between procrastination and AtC in the L2 learning context and procrastination and absenteeism seem to be very limited. Hence, the comparison between the finding of the present study and those of the previous ones were limited. As a result, the findings on both procrastination-AtC and procrastination-absenteeism interactions should be interpreted with caution and may warrant further investigations involving different participants in different L2 learning contexts. This may especially be the case since the sample of this study was generally quite limited, both in number and in breadth and diversity.

CONCLUSION

This study found that Indonesian L2 learners' academic procrastination was generally at a moderate level. It also found statistically significant positive relationships between learners' academic procrastination and two components, their AtC and absenteeism. In comparison, learners' academic procrastination negatively correlated with their L2 achievement. Their academic procrastination could predict 16.4%, 8.3%, and 16.5% of the total variance in their AtC, absenteeism, and L2 achievement respectively.

Considering the positive relationships between procrastination and the two components – AtC and absenteeism, teachers could condition instructional design in such a way as to discourage procrastination, cheating, and absenteeism at the same time. Teachers can employ project-based tasks in groups completed during several consecutive meetings. During these meetings, learners consult their progress where submission of progress is also graded. This way, learners can be more facilitated if they have difficulty working on tasks and they are also encouraged to make step-by-step progress. Promoting more group work may also reduce the chance of learners procrastinating as they need to coordinate with their group members to work on the task otherwise the quality of the work may not be satisfactory.

Furthermore, this study contributes to establishing the relationship between academic procrastination and three components, AtC, absenteeism, and L2 achievement. In terms of procrastination-AtC and procrastination-absenteeism relationships, specifically, this study may have opened the way for further studies in the L2 context considering such studies are quite infrequent in L2 literature. However, considering the rarity of previously established studies in these fields in the L2 contexts, the findings should be interpreted with

caution, may be treated as an exploration, and may warrant further investigations.

Future researchers can conduct a survey study involving a bigger sample and employing a stepwise regression to investigate the predictive power of factors such as procrastination, AtC, and absenteeism toward L2 achievement. Conducting studies focusing on teachers' efforts in reducing procrastination among learners in L2 classes should be encouraged. Whilst it is realised that young adult learners at the university level are responsible for their learning, there could be many that teachers can do to mitigate situations where procrastination is widespread and negatively affects learning.

DECLARATION OF COMPETING INTEREST

None declared.

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