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# Are lecturers responsible for students' academic procrastination?

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**ABSTRACT**

Most studies tend to report that academic procrastination (AP) was caused by students' internal factors, such as educational self-efficacy, perfectionism, fear of failure, expectancy value belief (perception of the task value), or classroom engagement. Nevertheless, some studies in the past have reported that students' perception of their educators' expectancy has significantly predicted their educational efficacy, fear of failure, and perception of the task value. Therefore, we hypothesized that students' perception of educators' expectancy predicted the students' AP, fully mediated by educational self-efficacy, moderated by the expectancy value belief. The data was collected from 361 purposively recruited students from universities in Indonesia and Malaysia who completed the scales of perceived lecturers' expectancy (PLE), educational self-efficacy (ESE), and expectancy value belief (EVB) and procrastination assessment scale-students (APSS). The data was analyzed by using AMOS-SEM and it was suggested that PLE significantly predicted ESE and APSS. Nevertheless, ESE was not a significant predictor of APSS; therefore, no mediation occurs. Furthermore, the link between PLE and APSS is significantly moderated by the EVB. In other words, lecturers might have played some active role, albeit indirect, in pushing students toward academic procrastination. Further implications, limitations, and suggestions are discussed.



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## 1. INTRODUCTION

Academic procrastination (AP) is a prevalent phenomenon among university students as it is reported to happen daily [1]. Some studies in the past reported that the tendency to be involved in AP is caused by the students' internal factors, such as self-efficacy [2], learned helplessness [3], self-esteem [4], negative self-appraisals on personal responsibility and ability in task completion [5], as well as the locus of control [6]–[8]. In other words, past studies suggested that students with certain characteristics tend to procrastinate. In line with that, a meta-analysis by Hall, Lee, and Rahimi [9] from 3,071 faculty participants (70% female, 69 countries) over three-time points (5–6-month lags) showed greater self-efficacy at baseline to correspond with lower procrastination.

Some studies suggested that AP occurred because the students chose to procrastinate; Prihadi *et al.* [10] suggested that internal factors, such as learned helplessness would not be significant predictors of AP anymore when controlling for the locus of control. In other words, when the students believed that they are responsible for their results, they are less likely to procrastinate, compared to when they believed their results

are totally dependent on their lecturers, luck, or any other external factor. In line with that, AP was also reported to be connected to fear of failure, dependency, and task aversiveness [11], [12]. AP happens after the students decide to procrastinate due to their fear, dependency on others, or simply desire to avoid the task. Related to this, students' choice to procrastinate due to fear of fear can even be triggered by some personality factors, such as maladaptive perfectionism [13].

Apart from the aforementioned variables, students' value system might also be related to their AP behavior; expectancy value belief (EVB) and the perceived value of the task they must do [12]. The Expectancy-value Model of Achievement Choice explained students' academic choices and performance as well as predicted their achievement motivation [14]. In other words, when students believe that finishing a task on time is valuable, they are less likely to procrastinate [15]. However, students who expected themselves to fail to tend to be unmotivated to engage in a task although they believe that the task is highly valuable [16].

Based on what has been discovered, procrastination intervention programs were designed and tried. A meta-analysis [17] on 24 studies on procrastination interventions (total $k$=44, $N$=1173) compared four different types of interventions: self-regulation, cognitive behavioral therapy, other therapeutic approaches, and interventions focusing on individual's strengths and resources. They suggested that cognitive behavioral therapy reduced procrastination more strongly than the other types of interventions. Another meta-analysis suggested that self-efficacy even mediated the relationship between self-oriented perfectionism and procrastination [18]. The two meta-analysis studies emphasized that self-efficacy and self-regulation are the most common predictors of AP behavior; self-efficacy, or in our context, ESE, represents one's perception of themselves, while self-regulation represents their choice to procrastinate, based on the ESE.

Roles of lecturers in developing procrastination behaviors among the students. In the early 2010s, a study in a Malaysian context suggested that students who were assigned to 'high achievers' classrooms developed different perceptions of their teacher's expectancy compared to those who were assigned to 'low achievers' classrooms. The former perceived that they were expected to perform well academically and the teachers were supportive, while the latter perceived that they were expected to be involved in disciplinary behaviors, and the teachers were vigilant towards them [19]. The continuation of that particular study suggested that students who perceived that their educators are academically supportive tend to develop higher self-esteem and ESE than those who perceived that their educators are more toward discipline [20]. This issue was considered serious, up to the point where they continued their study and came up with a certain way to improve the student's self-esteem and ESE after being 'victimized' by their own perceived educators' expectancy [21], by improving their self-control.

The classical studies collection in the previous paragraph suggested that when university students develop perceived lecturers' 'academic' expectancy (PLAE), they would develop higher ESE than those with perceived lecturers' 'disciplinary' expectancy (PLDE). The last part of the previous paragraph also indicated that self-control might be a protective factor toward lower ESE among the students who had PLDE. In the context of this current study, lower ESE was significantly associated with a higher tendency to procrastinate, and therefore students' perception of the lecturers' expectancy might have triggered the AP behavior through ESE. Thus, we hypothesized that ESE significantly mediated the positive link between PLDE and AP, as well as the negative link between PLAE and AP. Nevertheless, Putwain *et al.* [16] had advocated that ESE would interact with the student's perception of how valuable the task is before they decide to procrastinate or finish the task on time. Therefore, we also hypothesized that the mediation of the ESE would be moderated by EVB. Thus, we collected our data to test the following hypothetical model as shown in Figure 1.

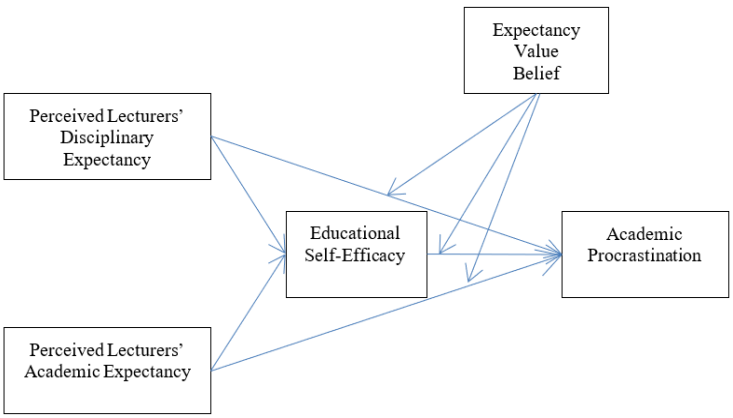


Figure 1. The moderated mediation hypothesis

## 2. RESEARCH METHOD

### 2.1. Participants

Purposive sampling was utilized to recruit 361 participants who are registered as university students. They had to fulfill the requirements of being students of a university in Malaysia or Indonesia and must comply with 100% online classroom method. The participants were recruited through university authorities and staff voluntarily, without any form of compensation. The participants consisted of 112 men, and 152 women, while 97 stated no gender identity. As many as 183 (50.7%) of them were from universities in Malaysia, and 178 (49.3%) were registered as students in universities in Indonesia. Malaysian nationality was represented by 134 (37.1%) participants, Indonesians were 219 (60.7%), and 8 (2.2%) were of other nationalities. Most of them, 326 (90.3%) were bachelor's degree students, while Master's and Ph.D. were 19 (5.3%) and 16(4.4%) respectively.

### 2.2. Materials

The educational self-efficacy scale by Imperial College London [22] was used to measure the outcome variable of ESE. The 5-item sample scale measures the overall sense that students have that they can achieve academic outcomes, with the reliability of α=.87. Our predictors, PLAE and PLDE, were measured by the perceived teachers' expectancy scale [23]; 10 items in this scale were designed to measure PLAE, while another 10 were for PLDE. Each of the subscales was reliable at α=.85 and α=.78 respectively.

The moderator variable, EVB, was gauged with the expectancy-value model of achievement choice and was measured by using the motivating strategy for learning questionnaire (MSLQ) by Pintrich *et al.* [24]. From the original 81 items, two subcomponents (self-efficacy for learning and performance from the expectancies component and task value from the values component) were extracted from the MSLQ to measure participants' EVB. MSLQ was chosen in this study as it shares a common basis construct as the expectancy-value model, which is the social-cognitive model of motivation [14], [24]. Specifically, the expectancies component and values component of the questionnaire are what make the expectancy-value model much more social-cognitive in nature [25], [26]. The items under task-value were constructed based on task-value beliefs as described in the expectancy-value model [26], [27]. A total of 14 items were used in this study with eight items measuring expectancy-related beliefs and six items measuring task-value beliefs. Cronbach alphas were .93 and .90 respectively [24]. MSLQ used a seven-point Likert Scale, with 1 being "not at all true of me" and 7 being "very true of me". A higher rating of an item indicates higher expectancy-value beliefs.

To measure participants' academic procrastination level, the academic procrastination scale (APS) was used [28]. APS was chosen over the other academic procrastination scales, such as the general procrastination scale [29], the procrastination assessment scale-students (PASS) [30], and the Procrastination Scale [31] as it covers limitations presented by the other scales, which are invalid and vague items, non-comprehensive conceptual definition of academic procrastination when designing scale items, limited areas of academic performance being observed, and small sample size used [28], [32]. APS had a Cronbach alpha of .94 and it consisted of 25 items that look into six facets (distractions, psychological beliefs about ability, time management, social factors, laziness, and personal initiative). The responses were recorded on a five-point Likert Scale, with 1 being "Strongly Disagree" and 5 beings "Strongly Agree". A higher rating of items indicates a higher procrastination level.

### 2.3. Procedures

The recruitment of the participants was conducted with the support of their respective lecturers who posted the link of our scales to their respective online learning platforms. The participants were given a link to a Google Form where they voluntarily complete each item of the aforementioned scales after giving their consent via the same form. The method was considered effective and efficient because, during the time of data collection, the government of Malaysia and Indonesia implemented the lockdown policy due to the physical distancing protocol amidst the COVID-19 outbreak. The participants were allowed to leave the scale unfinished when they feel any discomfort, but all of the participants completed the entire scale.

## 3. RESULTS

To test the hypothesized relationships in the aforementioned model, structural equation modeling was conducted using AMOS 22. Results on model fit yielded $\chi 2/df=1.953$, comparative fit index (CFI)=.995, the goodness of fit (GFI)=.996, and an RMSEA=.051, indicating a good fit between the model and the observed data [33]. The graphical model of the hypothesized SEM is shown in Figure 2. Standardized and unstandardized coefficients for the SEM analyses are also provided in Table 1. To achieve an appropriate model fit, the error terms of ESE had to be covaried with EVB as shown in Figure 2, indicating that both constructs possibly share an overlap in essence. This will be further expounded upon in the discussion.

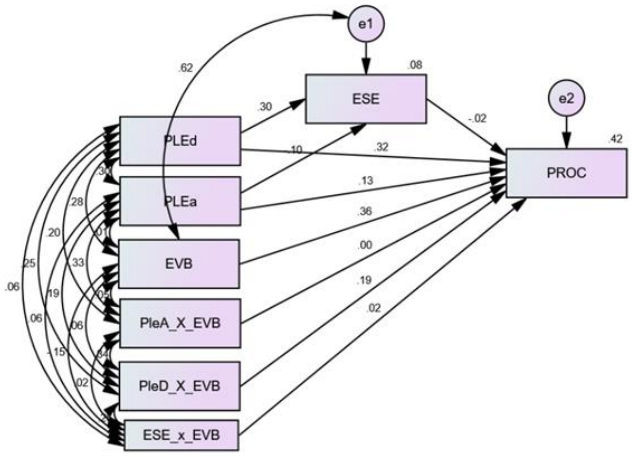


Figure 2. Structural equation model $\chi 2/df=1.953$, CFI=.995, GFI=.996, RMSEA=.051

Table 1. Unstandardized and standardized coefficients

| Observed variable | Latent construct | B | β |
|---|---|---|---|
| Perceived lecturers' disciplinary expectancy (PLDE) | Educational self-efficacy | .160** | .300** |
| Perceived lecturers' disciplinary expectancy (PLDE) | Procrastination | .422** | .323** |
| Perceived lecturers' academic expectancy (PLAE) | Educational self-efficacy | -.339 | -.096 |
| Perceived lecturers' academic expectancy (PLAE) | Procrastination | 1.126* | .130* |
| Educational self-efficacy (ESE) | Procrastination | -.044 | -.018 |
| Expectancy value belief (EVB) | Procrastination | .355** | .357** |
| PLAE x EVB | Procrastination | .002 | .002 |
| PLDE x EVB | Procrastination | .022** | .199** |
| ESE x EVB | Procrastination | .004 | .022 |

**=p>.05, **=p>.001*

### 3.1. Direct effects

PLDE was significantly related to ESE (β=.300) and procrastination (β=.323), suggesting that students who perceived their lecturer as expecting them to pose disciplinary problems reported greater levels of procrastination, and, interestingly enough, greater levels of educational self-efficacy. Furthermore, PLAE was also significantly correlated to procrastination (β=.130), albeit at a lower level compared to PLDE, suggesting that the perception of lecturers does make a difference in students' tendency to procrastinate. Lastly, ESE was also found to be significantly related to procrastination (β=.357), suggesting that students who had higher levels of educational self-efficacy were also more likely to procrastinate.

### 3.2. Indirect effects

ESE was not found to be significantly related to procrastination in general (p>.05), indicating that the hypothesized indirect effects between perceived lecturer expectancy and procrastination are also non-significant. As the mediator (ESE) did not predict the outcome (procrastination), it can be said that the mediation did not occur. In other words, students' belief that they are academically stable did not predict their procrastination behavior. While their perceptions of the lecturers' expectancy predict the way they believe in their academic efficacy, this belief did not significantly predict the tendency to procrastinate.

### 3.3. Moderated effects

We hypothesized that EVB would significantly moderate the relationship between both types of lecturer perceptions and procrastination. The result indicates that only PLDE was significantly moderated by EVB (β=.199), while the relationship between PLAE and procrastination was not found to be significantly moderated by EVB. The difference in coefficients between the direct relationship and moderated relationship of PLDE and procrastination suggests that EVB can help to alleviate the amount of procrastination that students report, especially when they perceived their lecturers as having a primarily disciplinary view of them. Lastly, results indicated that the relationship between ESE and procrastination was not significantly moderated by EVB. These results will be discussed further in the subsequent discussion section.

## 4. DISCUSSION

### 4.1. The shared variance between ESE and EVB: A dual-pathway toward academic motivation

As previously mentioned, to achieve an appropriate model fit, the error variance of ESE was covaried with the observed construct of EVB, suggesting that these two variables shared commonalities that the model accounted for. Past research suggests that this is indeed the case, with research suggesting that both constructs serve similar roles in predicting academic motivation [34], and are significantly correlated concerning student academic achievement [35]. The findings of this study suggest that this relationship also exists within the Malaysian-Indonesian student population, and suggests a dual-pathway that can be utilized by lecturers in increasing their students' motivation, either through a focus on their educational self-efficacy or by helping them perceive greater value in their assigned work.

### 4.2. Lecturer perception: A deal-breaker

An initial analysis of the results indicates that both types of perceived lecturer perception have a significant positive relationship with procrastination among students. However, what is especially pertinent is the degree to which each kind of lecturer perception predicts procrastination, where perceived lecturer disciplinary expectancy (PLDE) was found to be a greater predictor of student procrastination when compared to perceived lecturer academic expectancy. In essence, this study illustrates the impact that a lecturer has on the procrastination behaviors of the students under their care, and cautions further introspection on the part of the lecturer as to the perception towards their students that they may consciously or unconsciously be displaying. In other words, the expectations held by a teacher have a significant impact on the academic outcomes of their students, and the findings of this study further serve as reinforcement.

### 4.3. Expectancy value belief: Helping students perceive the importance of their assignments

Furthermore, the results also highlight the moderating role of expectancy-value beliefs, especially on the relationship between PLDE and procrastination. While the direct effect indicates that a PLDE-perspective will significantly predict an increase in procrastination, the moderation analysis suggests that when students were made to believe in the value of their assessments, this served as a positive mitigating influence, reducing the effect of a negatively perceived lecturer-perception on their procrastination tendencies. This finding reinforces the importance of the lecturer, both in monitoring their own displayed perceptions, as well as the importance of helping their students see the value in their assignments to decrease academic procrastination. These findings are once again in line with extant literature, which highlights the importance of expectancy value in influencing the construct of academic motivation [36].

### 4.4. Practical implications

The findings of this study offer up several practical implications that can be immediately applied to the teaching practices of lecturers. Firstly, an understanding of a possible dual-pathway toward academic motivation provides lecturers with increased opportunities to positively influence and improve the academic motivations of their students, either through a focus on increasing their educational self-esteem or via inculcating a sense of value in their module's assignments by emphasizing its learning contributions, to increase the expectancy-value beliefs of their students. Secondly, the careful management of the sense of their students' perceptions is imperative to the improvement of academic outcomes such as procrastination rates. Lecturers should strive to ensure that their students do not see them as placing unfair expectations on them, either disciplinary or academic. Nonetheless, should that be unavoidable, the results suggest that a path of least harm would be to emphasize to students the academic expectations that a lecturer has towards them, rather than a disciplinary expectation, which might serve to deflate students' academic motivation levels. Finally, lecturers would do well to emphasize the function and importance of their module assessments, carefully painting a path towards achievement and mastery that is offered via the attempting of the assignment, to increase the relative expectancy-value of their students towards their assessments, seeing it as more than just a task to be completed with the least amount of effort. This paradigm shift from a necessary task to mastery-path will undoubtedly result in lower rates of academic procrastination, as the findings from this study suggest.

### 4.5. Limitation of the study

This study was limited in its scope regarding academic outcomes, in that only academic procrastination was used as a gauge. The authors acknowledge that procrastination by itself may not account for a significant portion of academic outcomes, but believe that through indirect association, a decrease in procrastination rates may serve to elevate academic outcomes as a whole, as students who procrastinate less are likely to have more time and resources to work with, resulting in greater academic achievement as a whole. Furthermore, this study's sample is possibly subject to a cohort effect, collected as it was during the extenuating circumstances of the COVID-19 pandemic, which forced a radical change in the academic

environment from physical to online modes, as well as the various pandemic-related stressors that may exert undue influence upon the respondents in this study.

## 5. CONCLUSION

Our findings indicated that many factors significantly contributed to academic procrastination. However, it is worth highlighting that the student's perception of their lecturers' expectancy might predict their procrastination behavior positively. Therefore, lecturers, teachers, and educators at all levels need to make sure that their students perceive them as expecting the best from their students. It is expected that when the students believe they were expected to be the best, they would eventually pay the effort to be the best, and stop procrastinating.

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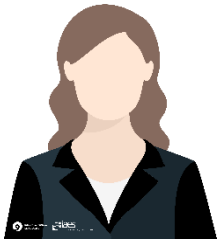

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