

## Mediation Role of Locus of Control on the Relationship of Learned-helplessness and Academic Procrastination

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### ABSTRACT

This study aims to study the mediation role of locus of control on the impact of learned helplessness on students' academic procrastination. Studies reported that more than 70% university students procrastinate, and one of the causes is the perception that one is vulnerable or helpless in finishing the procrastinate tasks. It was hypothesized that internal locus of control iLOC can reduce the effect if the learned helplessness (LH) on academic procrastination. Data was collected from 60 university students by utilizing instruments such as Duttweiler's Internal Control Scale, Pure Procrastination Scale (adapted for academic setting) and Learned Helplessness Scale. Multiple regression with Process add-on showed that full mediation occurred; the prediction of LH on procrastination became insignificant when iLOC is controlled. In other words, when students believe that they are in control of their events, the less likely they will procrastinate doing their tasks due to helpless feeling

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## 1. INTRODUCTION

Academic Procrastination (AP) can be a serious problem among university students at any levels, especially because it connects to significantly lower GPA [1]. Nevertheless, 70-95 % of undergraduate students procrastinate on their academic tasks and experienced academic delays [2]. Therefore, AP is a chronic problem among university students that requires more attention from education stakeholders. For decades, researchers had been studying about the factors of AP [3, 4, 1, 5] and factors related to individual differences such as self-regulation and motivation were reported to be connected with AP. Other dominant factors explored by those aforementioned studies are related to how individuals negatively evaluate themselves, or learned helplessness (LH), as well as how they credit themselves on their events, or internal locus of control (LOC).

It is reported in some studies that how individuals evaluate and credit themselves is actually predicted by how they perceive other people expect them [6]. The theory of symbolic interaction [7] supported this perspective, as the theory can be summarized as individuals perceive themselves based on their perception on others' expectation. In the context of the study, AP is seen as an outcome of how students perceive their educators' expectation towards them; in other words, when the students perceived that the educators expect them to be incapable of performing academically well; they will see themselves as academically helpless [8] and therefore procrastinate. Nevertheless, when they believe that they are in control

of their own event (possessing internal LOC), their perception towards others' expectancy will not affect their perception of their own capability [9], which might lead to less AP.

### **1.1. Factors of Academic Procrastination**

Because AP has been one of the major academic problems, studies on it have been conducted for decades, and multiple factors have been reported as its predictors. However, it seems that all the factors promoting AP can be categorized into internal (from the individuals themselves) or external (from the perception of the individuals on other people's attribute to them). Among the external factors is negative evaluation from others [10], and peer influence [11]. Nevertheless, despite the aforementioned factors are considered external, individuals need to perceive them in certain ways before developing any procrastination behavior. For instance, although their educators keep telling the students that they are capable of working effectively, their perception on their efficacy will determine their actual behavior, or in this context, whether they procrastinate [12].

Apart from perceived external factors, some internal factors have been reported as major predictors of AP, for instance, self-regulation failure [1, 13], self-determined motivation/ intrinsic motivation (Lee, 2010; Rakes & Dunn, 2010), self-esteem [14], self-efficacy [1, 2], as well as laziness, stress and motivation [15].

In line with the previous paragraphs, it is understood that many of the aforementioned previous studies assumed that each factor is perceived by the students in such a way before leading them to procrastination. In other words, how individuals evaluate and credit themselves is actually predicted by how they perceive other people expect them to be (Rock, 2016). Many of the aforementioned studies, for example the one by Chen et al (2016) stated that it takes peer expectation to be perceived in such a way by a student before he or she procrastinate; students who perceived that support or help is not accessible, might develop tendency to procrastinate, and students with high resistance to peer influence will not procrastinate, despite being expected to do so by their peers.

### **1.2. Learned Helplessness as Predictor**

Less efficacious individuals who received negative feedback tend to doubt their performing abilities more than usual and fall into irrational cognition (Steel, 2007) that brings them to the perception of being helpless [16] that eventually brought them to AP. Other studies reported that individuals who conceal their true performance abilities to secure their sense of self-worth are more likely to postpone to start or delays the completion of tasks [17]. In other words, procrastination acts as a self-handicapping strategies [18] or incubator for LH in some way [14].

In general, young adults with negative perception of self and life tend to procrastinate [2, 19]. In the context of its relationship with AP, LH is related to the perception that academic tasks are uncontrollable, aversive, and inescapable setbacks and to the tendency to explain these setbacks using the pessimistic explanatory style, and the following perception that it is pointless to finish the task on time [20]. Together with anxiety, LH is seen as a product of a fear and negative expectation of academic result, which can be triggered by negative past experience related to academic performance as well as negative perception towards social support [1].

The role of LH in predicting AP was also reported in a study where resilience, coping strategies, and psychological well-being are involved in the life of university students [21]. The aforementioned factors tend to put individuals into an alienated stage, where emotional and social supports, such as spiritual activities or counseling are highly required. Similarly, procrastinating behavior is a pattern that is developed by individuals who feel better doing so rather than totally avoids the task [22]

The theory of symbolic interaction [7] supports the aforementioned perspective; as the theory explained that individuals perceive themselves based on their perception on others' expectation. In the context of the study, AP is seen as an outcome of how students perceive how other people around them expect them to be; in other words, when the students perceived that they are expected to perform academically well easily, they will see themselves as capable to perform well academically, including submitting the assignment on time, and vice versa.

Procrastinators reflect their task-competency to self-worth [23]; the success or failure of any task accomplishment will not only be seen as task-related, but also to themselves as worthy individuals [23]. In order to protect self-worth, they avoid doing the task, because they perceive that their self-worth will be at stake when they show any error in the task completion [14]. Therefore, the procrastination occurrence can also be predicted by whether an individual perceives that he/she is capable of doing the task; thus, it is hypothesized that when the helplessness is perceived or learned, the procrastination occurs.

### 1.3. Locus of Control as Mediator

The more internal the students' LOC, the less they perceive themselves as negative based on their perception of others' expectancy [9]. On the other hand, the theory of LH stated that LH is significantly predicted by the negative experience (in the form of failure or pains) of individuals regarding a certain task [18], at the same time, the theory of [24] stated that individuals with internal LOC tend to credit themselves for their events. It can be implemented that AP committed by students with internal LOC is not predicted by their perception of any other individuals, because they will blame themselves for their AP. The aforementioned statements leads to another hypothesis that LOC mediates the relationship between LH and AP.

Connection between LOC and AP had been reported in some studies with mixed directions; a study reported that individuals with internal LOC tend to relate their successes and achievements to themselves, thus granting them a sense of responsibility for their actions, which in turn lessen their procrastination behavior [25]; nevertheless, no significant difference of AP between individuals with internal and external LOC have been discovered [26, 27]. Moreover, it was argued that students who are likely to procrastinate are more intrinsically motivated, compared to those who are not. Therefore, high internal LOC might also positively predict AP.

A study among college students discovered that students with internal LOC tend to have lower AP and higher academic achievements [20]. In line with that, another study among university students stated that the more internal their LOC, the more they perceived themselves as efficient in academic context (low score of AP), and the lower their AP was, the more they judged themselves more positively in the present and the future [28]. In other words, when students perceive that their events are under their control (internal LOC), they tend to take more responsibility regarding their academic tasks and performance, therefore they will not procrastinate.

Related to LH, internal LOC was clinically evident in reducing the level of LH among patients with chronic disease [29]; the more the patients believed that their attitude of living and behavior can affect the severity of their illness, the less they felt helpless. On the other hand, another study discovered that it was neither internal nor external LOC that will reduce the feeling of helplessness, it is the balance between internal and external LOC [30]. Another study reported that when the helplessness is learned, individuals will show low effort and put blame on anything but themselves [31].

### 1.4. Conceptual Framework

Findings of the aforementioned studies indicated that in many cases, LH predicts AP among college or university students. At the same time, LH is also tightly correlated to internal LOC, where internal LOC tend to be correlated with less LH. This interrelationship leads to the hypothetical interrelationship among the three variables illustrated in Figure 1.

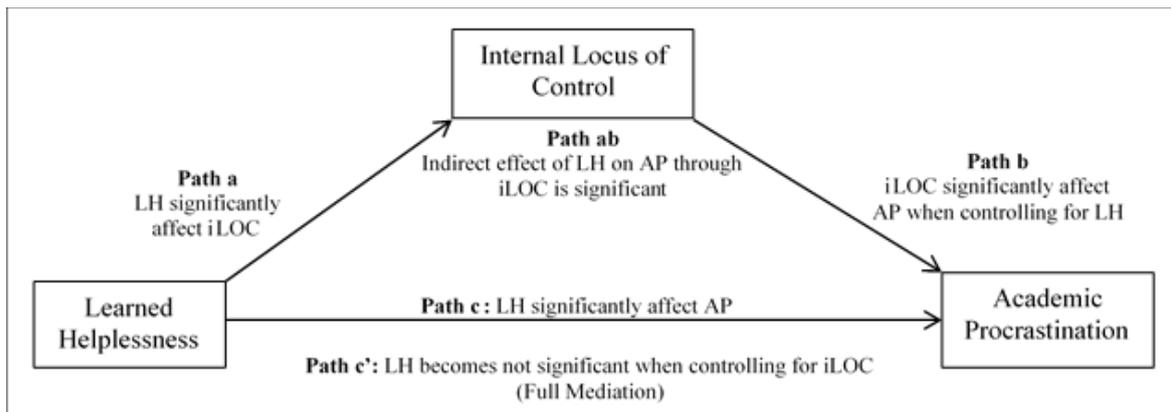


Figure 1. The hypothetical model

Figure 1 illustrates the hypotheses of this current study that internal LOC mediates the prediction of LH on AP.

## 2. RESEARCH METHOD

Snowball sampling has been done in order to recruit the participants from social media such as Facebook, Instagram and WhatsApp application. College students who are connected to the authors were given links to the instruments and consent form, and they were asked to share the link in their social media pages to attract more participants from their network. Demographic data such as country of origin, country of study, and level of study were also collected in order to purify the data from the less preferred samples; for instance, participants who are not currently university students, or not studying in the research location were not taken as sample of this study. G\*Power calculation has also been done in order to obtain the adequate number of samples and 60 college students were recruited to participate in the study. They are between 18 and 24 years of age, and are studying in Penang, Malaysia.

Self-esteem of the participants was measured by using the Rosenberg Self-esteem scale [32], while Duttweiler's Internal Control Scale [33] was utilized in order to measure the level of internal LOC, and Pure Procrastination Scale [34] was employed to measure the AP among the participants. A panel of experts from Universiti Sains Malaysia, HELP University, and DISTED College Malaysia, as well as several college students from the same age group as the participants have been formed in order to test the content validity of each scale. The scales were uploaded in the form of Google Form in order to alleviate the efficiency in data collection as well as to diminish the possibility of human error during data entry. The collected data was analyzed by utilizing SPSS with PROCESS add on in order to see the mediation effect.

## 3. RESULTS AND ANALYSIS

Table 1 illustrates the results of the data analyses for each path of the mediation model hypothesized in Figure 1. Table 1 depicts the interrelationship among variables. Path a shows that LH has significant negative effect on LOC [ $F(1,58)=28.63$ ,  $p<.001$ ]. In other words, the predictor has significant negative effect on the mediator ( $b= -.76$ ); which means that one point increment of the LH of an individual, the more external the LOC. In path b, it was shown that internal LOC significantly contributed to the decrease of AP [ $F(2,57)=7.67$ ,  $p=.002$ ] when controlled for LH [ $t(57)= -2.09$ ,  $p=.041$ ]; the more internal the LOC, the less likely one would show AP behavior, regardless the LH. Path c shows that LH significantly predicts AP [ $F(1,58)=10.38$ ,  $p=.002$ ,  $R^2=1.52$ ]; which means that the higher the level of the helplessness learned by individuals, the more they will show academic procrastination.

Table 1. Results of The Mediation Analyses of Each Path

path a	path b	path c	path ab	path c'
$F(1,58)=28.63$ $p<.001$ , $R^2=.33$	$F(2,57)=7.67$ $p=.011$ , $R^2=.21$	$F(1,58)=10.38$ $p=.002$ , $R^2=1.52$	( $b=.79$ ) BCaCI[.143, .315] <i>Does not contain zero</i>	$F(2,57)=7.67$ $p=.011$ , $R^2=.21$
$b=-.76$ , $t(58)=-.535$ , $p<.001$	<i>Controlled for LH</i> $b=-.16$ , $t(57)=-2.09$ , $p=.041$	$b=.27$ , $t(58)=3.98$ , $p=.02$		<i>Controlled for LOC</i> $b=.15$ , $t(57)=1.51$ , $p=.14$

Path ab shows that the indirect effect of LH on AP through LOC was significant, as the bias-corrected bootstrapped confidence interval does not contain zero [BCaCI(.143, .315)]. Furthermore, path c' shows the occurrence of a total mediation, because when controlled for LOC, the LH became a non-significant predictor for AP [ $t(57)=1.51$ ,  $p=.14$ ]. The occurrence of full mediation indicated that when the students possess adequate internal LOC, or in other words believe that they are in control of their success and failure, they would not likely be affected by the helplessness they have learned in the past in submitting their work on time. On the other hand, it can also be concluded that students who tends to procrastinate their academic task due to the feeling of lack of support or capabilities tend to believe that their success and failures are beyond their control.

## 4. DISCUSSION

In a more detailed picture, findings of this current study supported the previous reports that students who learned that they were helpless tend to procrastinate their work [14, 4, 18]. For this kind of procrastinator, academic tasks are perceived to be overwhelming, inescapable, and uncontrollable, up to an extent that they believe that finishing it on time or pay adequate effort to do so is pointless [20]. This is also

consisted with the report stating that the perception of helplessness led students to AP [19]. In other words, they have already believed that they do not have what it takes to perform well academically, thus there is no point in submitting tasks on time. This phenomenon is represented well in the statistical result of this study, which stated that LH significantly predicts AP [ $F(1,58)=10.38$ ,  $p=.002$ ,  $R^2=1.52$ ].

Statistical analysis results also shown that LH negatively predicts internal LOC, and prediction is quite powerful ( $b= -.76$ ) that when the students have their LH score increased by one level, their internal LOC decreased by 0.76 points. This finding established the argument that the increase of LH will get individuals LOC to be more external [31] as well as the work of April et al (2012) which suggested that there is a need for balance between external and internal LOC to keep it from becoming too external due to the influence of LH. In other words, in extreme cases, students who were exposed to any source of LH will believe that they are so helpless up to the point where they believe that they are no longer in control of their events (developed external LOC). Nevertheless, full mediation of internal LOC suggested that when students have already developed enough belief that they are in control of their events (having adequate internal LOC), the helplessness they have learned will not affect their academic punctuality.

## 5. CONCLUSION

Similar to the previous studies, this current study suggested that that students tend to procrastinate when they perceived that the assignments are overwhelmingly beyond their capability. However, such perception was the product of learned helplessness, which mean that the students have developed their belief that they do not have the required capability to finish the assignment on time. This perception of helplessness is usually learned from peers or their belief that their peers consider them as incapable. Some previous studies emphasized that resilience might help the students with negative self-perception to finish the assignment on time; nevertheless, findings of the current study suggested that students with learned helplessness will only be capable to submit on time when they have internal locus of control, they believe that they are in control of their own events.

The findings lead to the conclusion that the learned helplessness will not affect the students' capability to submit their assignment on time when the students believe that being late or being on time is depending on their own decisions and their own hardwork. This belief seems to nullify the helplessness they have learned from the peers or the failures in the past.

It is suggested by the findings of this study that procrastination in academic setting occurred due to the perception of helplessness that have been learned for a while, yet the influence will not be that damaging when the students believe that they are responsible and in control of their events. In other words, procrastination will not take place when the students felt empowered and believe that they can positively alter their events by doing their best. Educators should be encouraged to avoid giving negative remarks to students in order to avoid the development of LH. Supporting activities to internalize students LOC can also be done in order to reduce procrastination.

Studies with larger number of participants with larger range of demography is suggested to be done in the near future. Involvement of other variables, such as personality, upbringing, perceived parenting styles, or student-lecturer ratio is highly suggested as well, along with the usage of qualitative elements in the study. Because learned helplessness might be related to more negative aspects of life other than procrastination, it is suggested for the future research to investigate the mediation role of locus of control on the influence of learned helplessness on other variables in life, such as depression, learning delinquencies, or academic achievements in general.

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