THE RELATIONSHIPS BETWEEN PROCRASTINATION AND MOTIVATIONAL ASPECTS OF SELF-REGULATION

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ABSTRACT

Many students in Malaysia are affected by procrastination. This study examines the relationship between academic procrastination and the motivational aspects of self-regulation. A sample, consisting of 310 undergraduates from two Universities in Perak, Malaysia, was recruited to complete a modified version of the Procrastination Assessment Scale for Students (PASS) and the Academic Motivation Scale – College (AMS-C 28). Interviews and focus groups were conducted to obtain details of social environments that contributed to students' procrastination in the engagement of academic activities. Results indicated that there was a significant negative correlation between academic procrastination and the intrinsic motivation. A significant positive correlation was found between academic procrastination and extrinsic motivation. The identified motivation style under the extrinsic categories was found to be most frequently used. The findings from qualitative data analysis gave explanations for the quantitative findings. Implication were discussed in the context of Malaysia where students always internalised parents' and society's expectations in their academic careers.

INTRODUCTION

In Malaysia, tertiary education aims to strengthen the nation's workforce at all levels with the building of human capital (Yaakub, 2000) as Malaysia strives to become a high-income country in conjunction with Vision 2020. This vision aims to produce competitive and productive Malaysians (Tham, 2013). However, most of the university students in Malaysia were found to be procrastinators (Fatimah, Lukman, Khairudin, Shahrazad, &Halim, 2011) and the procrastination phenomenon in Malaysian academic institutions seems to be across genders. The negative impacts of procrastination have been well researched. It increases stress level and leads to poor academic and health outcomes (Morford, 2008; Hussain& Sultan, 2010; Zeenath&Orcullo, 2012). It also further affects competency in knowledge and skill acquisition in tertiary education; which in turn brings less competitiveness into the job market. Yaakub further expressed alarm that when this habit continues into the workplace it will affect productivity. Given the low level of interest students have in academic studies

in Malaysia as indicated by their high levels of procrastination, Tham (2013) warned that it could jeopardize the country's growth and progress.

LITERATURE REVIEW

Deemer (2014) and his associates found that procrastination was influenced by mastery avoidance, and performance avoidance, meaning university students procrastinate due to their fear of failure (Elliot & Thrash, 2002). Besides passive procrastination, active procrastination might be used as a strategy to cram academic engagement into one or two days before the examinations which is very common among university students. Both the passive and active procrastination cases serve as adaptive purposes (Choi & Moran, 2009). However, there were incidences when students tended to put off or delay school-related activities and behavior without obvious danger or fear of failure or any active coping strategy (Schraw, Wadkins & Olafson, 2007) and it became a habit to delay engaging in academic work. Procrastination affects academic performance (You, 2015). It is one of the main contributors to late assignment

submission. The negative effects of procrastination are obvious. Tendency to put off academic activities results in doing work at the last minute, thus having less control of time and less time to study. This results in prolonging task completion times, poor academic results and students committed to lower goal achievement (Morford, 2008; Hussain& Sultan, 2010). Eventually, it will jeopardize long-term learning (Schouwenburg, 1995). McCown and Johnson (1991) considered procrastination to be chronic or dysfunctional behavior. Procrastination incurs additional stress especially when deadlines loom (Schouwenburg, 1995). Comparing procrastinators and non-procrastinators (Tice & Baumeister, 1997) it was found that the former obtained lower grades while the latter were observed to be in control of their studies.

The definition of procrastination in this paper adopted from Knaus (2000) which refers to the behavioural tendency to postpone tasks and a lack or absence of self-regulated performance. There was some evidence from previous research that procrastination is related to self-regulation as many researchers (Park, 2008; Park & Sperling, 2012) have found that poor self-efficacy and self-regulation lead to procrastination. Self-regulated learners take the initiative in learning and are usually aware of their academic goals. However, the students who procrastinate are not motivated to engage in academic activities. A negative correlation was found between academic procrastination and the motivation of self-regulation, particularly intrinsic motivation (Fatimah et. al, 2011). Types of motivation which would determine the self-regulatory style employed generally include intrinsic, extrinsic or amotivation (McTaggart, 2009; Niemiec & Ryan, 2009). When engaging in a task for personal satisfaction, enjoyment or learning, motivation is considered to be intrinsic (Calvo, Cervello, Jimenez, Iglesias & Murcia, 2010) and the regulatory style associated with this motivation is therefore intrinsic regulation. Therefore by definition, intrinsic motivation is motivated by positive emotions of enjoyment (Ryan & Deci, 2012) when a person engaged in a task. On the other hand, when an individual engages in a task due to

external factors such as approval from others, or to get a degree the motivation is classified as extrinsic. Extrinsic regulatory styles associated with this motivation are further divided into three sub-categories, namely external regulation (motivated by reward or to avoid punishment), introjected regulation (motivated to avoid feelings of anxiety and guilt or to gain social approval) and identified regulation (motivated by a contingent of external rewards that have been identified as personally important) (Calvo et al., 2010; McTaggart, 2009).

The self-regulation styles that are associated with the motivational aspects described above have their origin in the work on Self-Determination Theory (STD) proposed by Deci and Ryan (2012). This model was developed from work in the West and assumptions have been made that intrinsic motivation is preferred in the West due to the emphasis there on autonomy. It is generally agreed that students with autonomous regulation styles are more likely to experience positive academic outcomes and well-being (Senecal, et. al, 1995). The definition of autonomy refers to the need to experience freedom to initiate behaviours that are satisfying one's innate growth (Ryan & Deci, 2012). However, Ryan and Deci also acknowledged that not all tasks are inherently interesting and as humans grow we internalize extrinsically motivated tasks or values as our own. Therefore, it is possible to take note that context can yield external regulation and extrinsic regulation can become internalized to serve as autonomous motivation. When external norms are internalized successfully, Motie and his associate (2012) hold that the external goals will become personally important. Examining the interaction between individuals and their environment therefore helps to uncover what motivates or de-motivates students in learning, thus reducing the procrastination phenomenon among students.

In a collectivistic country like Malaysia, it is common for parents to impose family values or social norms on their children in academic pursuits and thus contribute to their regulatory motivation styles. Since most of the Malaysian university students procrastinate (Fatimah, et. al., 2011), how does this

phenomenon relate to their regulation styles and do their social interactions within their immediate context contribute to this phenomenon?

Therefore, the purposes of this study are as follows:
(1) To investigate the motivation profile by identifying the level of procrastination and regulation styles of the undergraduate students in Malaysia.
(2) To investigate the relationships between academic procrastination and motivational aspects of self-regulation among Malaysian undergraduates.
(3) To find out what motivates students to academic learning among university students in Malaysia.

There were three hypothesises:
(1) Procrastination has a significantly positive correlation with amotivation, external and introjected regulation.
(2) Procrastination has a significantly negative correlation with identified and intrinsic regulation.
(3) Social interactions contribute to the development of various regulation styles that affects students' engagement in academic activities.

The current research seeks to expand knowledge of the traditional motivation framework and its implications in the Asian context of Malaysia by investigating the motivation styles of Malaysian students and the relationship between procrastination and various aspects of self-regulation styles used.

METHODS

Research Design

This sequential explanatory mixed method design utilized a quantitative survey, semi-structured interviews and two focus groups discussions to collect data from two university campus in Perak State, Malaysia. The quantitative survey approach aims to discover the relationship between levels of academic procrastination and the different motivations behind self-regulation; while the qualitative approach aims to interview students to find out what actually happened in their social interactions that had motived them in their engagement in academic activities. This sequential mixed mode design placed priority on the quantitative survey which was carried out before the interview sessions. The role of the qualitative design is to provide explanations for the quantitative results which give in-depth descriptions with regards to students' learning experience and engagement in academic activities. Subsequently, the findings from both the quantitative and qualitative approaches were integrated (Creswell, 2008)
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Research Participants

A total of 310 university students consisting of 160 males and 160 females, aged 19 – 23, from first year to fourth year students participated in a quantitative survey. The students were from diverse disciplines: Bachelor of Accounting, Banking and Finance, Entrepreneurship programme from Business School; Bachelor of Psychology, Advertising, Journalism, Public Relations, Languages and Linguistics from the Faculty of Social Science; Bachelor of Agricultural and Food Science, Biology, Chemical Science from the Faculty of Science and also students from the faculty of Information and Communication Technology.

Research Procedure

A survey was conducted in the months of January and February 2014. Hard copies of questionnaires were distributed and the returned forms were collected at different buildings of the two university campus in Perak state of Malaysia. Students were informed about the objective and nature of this study and informed consent forms were collected. Two students from each regulation style were identified and interviewed and two focus groups were conducted after the quantitative survey.

Quantitative Measures

Two scales were used: (1) Procrastination Assessment Scale for Students and (2) Academic Motivation Scale-College Version (AMS-C 28).

Procrastination assessment scale for students (PASS).This study adopted the first section of PASS which consists of 18 items that evaluate the frequency of procrastination across six academic areas. Students are required to indicate the degree to which they engage in procrastination on a 5 point Likert scale. PASS is a valid and reliable tool to measure academic procrastination with good Cronbach's alphas (Park, 2008; Mortazavi, Mortazavi & Khosrorad, 2015). English version of the scale was used with minor modifications made. Explanatory notes were added in brackets to help the students: at the side of "writing a term paper", we added in bracket "writing an assignment" and "keeping up with weekly assignments" for "keeping up with weekly tutorials". This is to avoid misunderstanding or semantic vagueness as not all Malaysian university students might have "term papers" or "weekly assignments".

Academic motivation scale college version (AMS-C 28) was used to measure the motivation for academic study among the participants. This instrument was developed based on Self-Determination Theory and it consists of 28 items that assess the extent to which an individual's academic motivation is intrinsically or extrinsically driven (Vallerand, et al., 1992). There are 7 subscales which include three types of Intrinsic Motivation (to know, toward accomplishment and to experience stimulation); three types of Extrinsic Motivation – "Identified, Introjected, and External Regulation); and Amotivation. Four different items fall under each subscale and participants are assessed under a 7-point Likert Scale (1= does not correspond at all; 7= corresponds exactly).

For scoring purposes, total scores obtained under each of four items are averaged to indicate the final score for each subscale. For instance, scores accumulated from four items under the subscale of "to know" are averaged. Subsequently, the scores obtained from the subscales that represent each of the three main types of motivation are added and the mean is calculated. For example, the scores for the subscales of "to know", "toward accomplishment" and "to experience stimulation" is added up and the mean is

calculated in order to obtain the final score for Intrinsic Motivation. Higher score indicates higher level of motivation.

In the context of Malaysia, Chong and Ahmed (2012) reported Cronbach's Alpha values ranging from .71- .81 for all sub-scales. Content validity of all 28 items was equal or higher than .80 while construct validity scored over .90 (Stover, de la Iglesia, Boubeta & Liporace, 2012). For this study, the Cronbach's Alpha values ranged from .71 to .78 for all sub-scales.

Qualitative data collection

Semi-structured interview sessions and focus group discussions were conducted. Research participants were encouraged to express their views during interview and focus group sessions. Twenty-one students attended two focus group discussions (12 females and 9 males) through snowball sampling. The number of students for focus group discussions is rather small to establish a safe setting for open and spontaneously sharing of thoughts and feelings. All the students are from one university so it was considered to be a homogeneous group, but some of them brought their close classmates along so the participants were not complete strangers to each other. We followed the interview protocols suggested by Legard et al. (2003) which include rapport building, explaining the objectives of the study, obtaining informed consent and followed with semi-structured questions. These semi-structured questions were developed focusing on (1) Reasons for procrastination, and (2) what motivated students engaging in academic activities. The interviewees were encouraged to share their observation in general terms then specific questions such as 'what previous learning experience made you procrastinate in your studies' were posted to them so that they could share their learning experience in detail.

Data Analysis

Pearson's correlation was employed using SPSS to find out the relationship between levels of procrastination and motivation behind self-regulation.

Thematic analysis was employed for analyzing the qualitative text: First, all interview sessions were transcribed; second, the interview scripts were read several times to identify the core meaning of the text; finally segments containing categories that answered the research questions were identified. Four researchers who engaged in the data collection and data analysis discussed the themes found. This procedure is for the purposes of triangulation as member checking (Creswell, 2008) is required for inter-rated validity.

The findings showed a moderate level of procrastination: None of the participants have never procrastinated, only 22 participants (7%) almost never, 167 participants (54%) sometimes, 109 participants (35%) nearly always and 12 participants (4%) always procrastinated. The areas of procrastination covered almost all areas of study: doing tutorials, studying for examinations, attendance tasks, writing assignments, and even the on-school activities in general.

The self-regulatory styles were identified as follows:
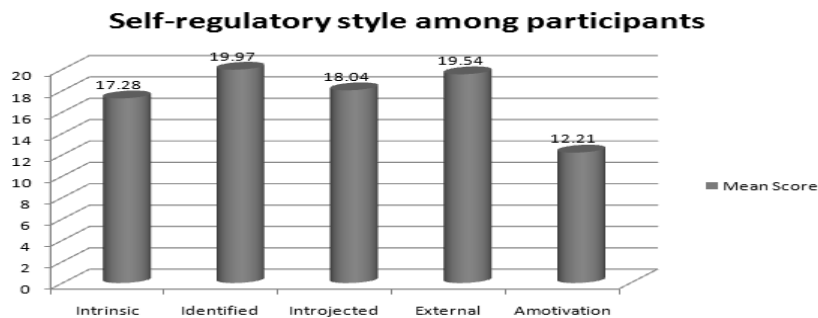
FINDINGS

Motivation Profile

Figure 1 Self-regulatory styles among participants

Figure 1 shows that identified regulation is the most practiced, followed by external regulation, introjected regulation, intrinsic regulation and lastly amotivation.

Table 1 Correlations between Academic Procrastination and Subscales of Motivation

	PASS Total Score
Amotivation	.510**
External regulation	.461**
Introjected regulation	.330**
Identified regulation	-.213**
Intrinsic regultion	-.637**

**p <0.01 level

A Pearson's correlation coefficient was computed to assess the relationship between procrastination and the subscales of extrinsic regulation, which are external regulation, introjected regulation and identified regulation. Table 1 shows that there was a significant positive correlation between procrastination and the variables of amotivation, external, and introjected regulation.On the other hand, there was a

significant negative correlation between procrastination and identified regulation and intrinsic regulation. The first two hypotheses were supported.

What motivated students in academic learning

Table 2 Findings from Interviews: What motivated students engaging in academic activities

Self regulatory styles	Reasons for procrastination	What motivates students engaging in academic activities
Amotivation	Miss matched interests or wishes. *"When task does not match what we want"*. *"Doing the task is a waste of time, not really what I want, just do first then look for other opportunity"*	No motivation for study. *"There's nothing else to do"*
Identified Regulation	Generally lack strong interest in studies. *"I want the work to be better/more perfect person, perhaps score better"*	Motivated by getting better grades. *"To get good grades for better career/can learn from interesting tasks"*
Introjected Regulation	Don't have an aim or goal, academic task doesn't really mean anything. *"I feel confident in my ability to finish the task in less time but it doesn't mean anything to me"*	Students just want to fulfill parents' wish. *"Because my father wants me to study this and failing/stopping studies will embarrass myself"*
External Regulation	No urgency to complete work. *"I always feel there is still time before deadline"*	Students are motivated to get a better career *"To get a job with high pay; to have a better life"*
Intrinsic Regulation	Really interest in the field of study. *"Enjoy learning new things, equip myself with more skills that enhance life quality"*	Will start doing the work even if there is still long time before the deadline *"I feel I am committed to complete the academic assignments and also extra-curricular activities"*

The themes of "Interest" and "Enjoyment" can be used to represent the driving force for students from the categories of Identified and Intrinsic Regulation; and in the case of amotivation, there is a lack of interest and enjoyment; while the theme of "Being Forced" for Introjected Regulation; looking for "reward" was the main theme for External Regulation.

Findings from Focus Group Discussions

The learning experience shared by our participants included the themes of motivated by "fear", "affection" and "interesting learning activities". Upon further scrutiny the themes of "affection" and "interesting learning activities" echoed the categories of "Interest" and "Enjoyment" found in the interview sessions. When asked what kind of learning environment or activities that would interest them and motivate them not to procrastinate, they gave some suggestions which were related to creativity and practicality as presented in Table 3.

Table 3 Findings from Focus Group: What motivated students in academic activities

	What motivates students (direct quotations)
Motivated by Fear	*"I was canned many times and I become numb to canning when I was young and this makes me dislike school".* *"But I still do the homework because I am afraid of the teachers"*
Motivated by Affection	*"I like that one of my teacher who always praised us. So I would complete the home-works given by her very quickly, didn't want to disappoint her".* *"Even now I am in the university, I am motivated to attend the 8am classes if I like the lecturer".*
Motivated by Creative Activities	*"There was this creative teacher who always grouped us using funny name such as 'Proton Saga' (Malaysian Brand car' I felt like to perform well to represent Malaysian car so we remember some geography names, that made me enjoy her class".*
Motivated by Practicality	"Most of my university course are theory based, I am motivated by the skills based course because more practical". "I enjoy doing group assignment because it is more hand-on"

DISCUSSION

Results indicated a high percentage of procrastination among Malaysian university students and it also reveals their motivation profile. The relationship between procrastination and regulation styles was found (refer to Figure 1 and Table 1). This confirms the more autonomy (intrinsically motivated) experienced by students the more they felt in control and the less they procrastinate. Identified regulatory style, although being classified as externally motivated, is the most practiced style among Malaysian university students, and it has the least procrastinate group of students among externally motivated regulatory types (identified, introjected and external).

The qualitative data reveals that the social interactions within the immediate environment contribute to their motivation in learning and the role of parents and the school environment cannot be underestimated. Students shared their learning experience on how they were motivated from childhood when they started primary school education. They were constantly being driven by two obvious motivational forces (by fear, and by the bonds of affection with parents and teachers). Those two externally oriented regulation styles have resulted in the findings of this sample. Those who have successfully internalized the educational norm and parental expectation since young will practise identified regulation (identified with parents or school norms and personally own them); while those who did not well integrate the social norms are in the continuum of using introjected (motivated by fear or reward) or external (motivated by pure external control) or in the worst cases become amotivated (no motivation). Therefore, not surprisingly, Malaysian university students' choice of degree courses were found to be practically oriented (Kok & Ang, 2013), and when answering AMS questionnaires, the results showed that Malaysian students were mostly externally driven by reward or punishment and this is expressed in the low interest in learning which results in procrastination.

Besides, the affective component is important. This theme emerged from the interview sessions and focus group discussions. They were either positively full of passion (found learning interesting and

fun) or negatively affected by strong emotions of fear, shame and being bored. Komarraju and his associates (2007) held that applying force in the "training" process, to enhance obedience of social norms such as being successful and achieving good academic performance will result in fears and "introjected regulation". However, when applying warmth and love, using guidance and a coaching approach, the cultural norms will be well-internalised, "identified regulation" will be fostered. This "identified regulation" is classified as similar to the mastery approach. Some of our participants expressed strong bonds of affection with their parents and teachers and this emotional bond served the role of a successful influential force to children. It was found that motivation by fear and punishment has long lasting detrimental effects as its demotivation effect has caused students to lack interest, and to procrastinate in academic studies when they are at university.

There was some reflection from the participants about how, as they grow up, they no longer blindly adopt parents' expectation or social norms but most of them admitted that they were still affected by the regulation style experienced since they were young. The implications for parents and educators would be that it is more effective for them to use a nurturing approach instead of authoritarian approach which has a detrimental effect on children. Passing on cultural values is still possible as long as parents or educators are able to help individuals to adopt them and identify them as helping them reach their goals.

Furthermore, our research participants also mentioned being motivated by creative and interesting academic activities. Soenens and Vansteenkiste (2010) hold that as long as learning activities are inherently enjoyable and interesting, even non-intrinsically motivated activities can come with a sense of autonomy and volition if they have been internalized (p. 76). It is good to foster interests and passions in learning. Students need to realise the importance of learning and be given freedom to choose and explore as academic learning involves both cognitive and affective components. Engaging in creative academic activities, students felt free

from being imposed upon or oppressed and hence all of their energy was focused on learning instead of negative aspects of stress or fear of the process of learning. Therefore, it is important to create and promote positive learning experiences to allow university students to be involved in goal setting and selections of practical strategies to achieving those goals. Creativity in designing assignments which are challenging and interesting would appeal to them. This is also essential to promote interest and pleasurable or positive learning experiences in order to encourage intrinsic motivation.

CONCLUSION

This study revealed the motivational profile of undergraduates in Malaysia which were mainly based on external regulation and their academic behaviours were related to their learning experiences since childhood. The qualitative analysis of this study provides insights into how the social interactions of the immediate family and school contexts contributed to the process of developing those various regulation styles in students, which confirm that the more enjoyment students experienced in learning, the less they procrastinate. Therefore there is a need to enhance the quality of the motivational profile of undergraduates by fostering personal interests or assisting them in internalizing academic behaviours as personally important, not only to minimize the tendency of procrastination but to promote a more creative and enjoyable learning experience.

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