
Towards Understanding Procrastination

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ABSTRACT

For long, practitioners on procrastination research have viewed the phenomenon, which affects general and academic populations, as a dysfunctional, self-handicapping and maladaptive behaviour that leads to negative outcomes. Today, some procrastination researchers look at it from different view point, albeit with a lot of criticisms. The new perspective considered procrastination as functional and adaptive that leads to desirable outcomes. The paper, therefore, over-view the conceptual nature of procrastination from the two different view points. Equally, brief history of procrastination, for its relevance in shaping procrastination studies, and its nature, have been highlighted. Efforts towards re-conceptualizing procrastination as a positive and desirable human behaviour have been reviewed and presented. Specifically, the new perspective in procrastination research that conceptualized procrastination as “active,” as opposed to “passive,” has been extensively discussed. The paper concludes that, procrastination is “Active” procrastination, as claimed may be another form of self-regulation strategy use for the attainment of desirable outcomes. The paper finally, recommended the need for further research in the area of procrastination for its better understanding.

Key Words: procrastination; active procrastination; self-regulation.

INTRODUCTION

Contemporary psychologists are increasingly interested in conducting research that explains procrastination, but in spite of growing research attention, much is yet to be known about the phenomenon (Steel, 2007). Even though, recently, researchers turned their search light toward investigating procrastination and its possible contributing factors, what is clear is that empirical and theoretical foundations of procrastination research are less well established when compared to other psychological constructs (Klassen, Krawchuk, & Rajani, 2008). This is despite the fact that procrastination is common, and impacts so many people

Steel (2007) observed that procrastination is extremely prevalent to the extent that almost all persons have at least “dallied with dallying,” some

have made it a way of life. This may be the reason why Kagan, Cakir, Ilhan, and Kandamir (2010) found it convenient to state that “every person procrastinates in carrying out some of the responsibilities and tasks in their life” (p.2121). Some delay payments or appointments, while others delay housework, assignments, homework or preparation for exams. In essence, procrastination pervades all spheres of human life from socio-economic to political aspects of the general and specific population (Steel, 2007). For instance, estimates show that 80%-95% of college students engage in procrastination, with almost 50% are found to be consistently and problematically procrastinating (O'Brien, 2002; Onwuegbuzie, 2000).

In addition, while examining the prevalence of procrastination in a student's population, Schouwenburg's (2004) research indicated that

almost all students procrastinate to some degree and that a moderate amount of procrastination is considered to be normal. Procrastination in the general population has also been examined, in which 15%-20% of adults are found to be chronically affected (Harriot & Ferrari, 1996).

Procrastination also seems to be a troubling phenomenon, which has been considered a self-handicapping behaviour that leads to wasted time, poor performance, and increased stress (Ferrari, 2001; Steel, 2007). Justifying this stand, earlier researches (e.g., Ferrari, 2001; Knaus, 2000) show that procrastination is a dysfunctional and maladaptive behaviour that ultimately results in negative outcome. Recently, however, an alternative view of procrastination emerged. Chu and Choi (2005), for instance, demonstrated that not all procrastination behaviours are detrimental and cause negative consequences. Going along this viewpoint, some researchers (e.g., Bernold, 2007; Choi & Moran, 2009; Klassen et al., 2008) see procrastination as functional, adaptive, and beneficial.

In addition, some researchers (e.g., Elliot, 2002; Ferrari, Johnson, & McCown, 1995; Van Eerde, 2003) view procrastination as an immutable personality trait or disposition in which, with some individuals, engagement in procrastination behaviour may become a pervasive and habitual activity. For these reasons, procrastination may be viewed as a personality trait which generates repeated episodes of dilatory behaviour. This trait-based approach, observed Moon and Illingworth (2005), continues to drive the procrastination literature despite an abundance of contradicting theoretical and empirical work. For example, other researchers (e.g., O'Donoghue & Rabin, 1999; Steel, 2007) conceptualize procrastination as a situation specific behaviour as opposed to personality trait.

The purpose of this paper, therefore, is to contribute to our understanding of procrastination – a phenomenon that pervades all aspects of human life. In spite of the growing interest in procrastination research, much is yet to be known about this phenomenon. This is evidenced by the differing views

expressed in the current procrastination literature. While some personalities see it harmful to human functioning, others consider it to be beneficial. Hence, the construct of procrastination, unlike other psychological phenomena, seems to have different connotations for different people (Farran, 2004). It therefore becomes imperative to give proper consideration to procrastination – as a psychological construct and an important human behaviour – and to provide clarity to its basic nature. This involves examining some contemporary definitions of procrastination, briefly tracing its historical roots, and presenting a general conceptualization of procrastination as behaviour. Effort will also be made to synthesize these views in order to further our understanding of this important psychological construct.

CONCEPT OF PROCRASTINATION

The usage of procrastination in the current literature reflects both negative and positive sense, depending on which side of the divides a particular researcher belongs. As with many common-language terms conscripted into scientific study, opined Steel (2007), definitions for procrastination tend to be almost as many as the people researching it. Initially, Steel further observed, such definitional variation may seem to mask the true nature of procrastination, but it may also serve to clarify it. Hence, all conceptualizations of procrastination recognize that there must be a postponing, delaying, or putting off of a task or decision (Steel, 2007). This is in line with etymological Latin origins of the term “procrastination” – *pro*, meaning “forward, forth, or in favour of,” and *crastinus*, meaning “of tomorrow” (Klein, 1971). When one delays beginning or completing an intending course of action, one is said to be procrastinating. Steel (2007) stressed that this distinction separates procrastination from simple decision avoidance (Anderson, 2003), with which people's original intention is to delay.

Furthermore, procrastination is often regarded as the irrational delay of behaviour which connotes deferring action, especially without good

reason. Being irrational, reasoned Steel (2007), entails choosing a course of action in spite of the fact that it will not maximize your utilities – interests, preferences, or goals – of both a material (e.g., money) and a psychological (e.g., happiness) nature. Synthesizing these elements indicates that “to procrastinate is to voluntarily delay and intended course of action despite expecting to be worse off for the delay” (Steel, 2007, p.66). Steel further described procrastination as an intentional delay of an intended course of action, even though, the procrastinating individual is fully aware of the negative consequence.

Balkis and Duru (2009) defined procrastination as a behaviour in which an individual leaves a feasible, important deed planned beforehand to another time without any sensible reason. In general, procrastination connotes individual's difficulties in performing day-to-day tasks due to incapability to organize and manage time effectively (Ferrari, 1995). In addition, Steel, Brothen and Wambach (2001) opined that people who procrastinate do so not because they lack intentions to act but because they fail to take actions as they intend to; thus, reflecting a large gap between intentions and actions in procrastinators. In another sense, procrastination is considered to be a kind of “anti-motivation” (Klassen, Krawchuk, Lynch, & Rajani, 2008, p.137). That is to say motivated individuals, in contrast to procrastinators, set goals for themselves, exert effort in their work, and persistently continue to work even when facing obstacles (Hannok, 2011).

Procrastination, regardless of the variety of definitions, can occur across domains. Steel (2007), for instance, observed that the phenomenon pervades general population; from socio-economic, political to medical fields. For example, some people may delay seeking for help with regards to their health problems.

In addition, relative to any other kind of procrastination, academic procrastination has received much attention. Academic procrastination is defined (Tuckman, 2002) as a personality trait that can seriously affect students, whose lives are characterized by frequent deadlines. In a more

concise manner, Dietz, Hofer, and Fries (2007) conceived academic procrastination as the tendency to postpone learning activities. Solomon and Rothblum (1984) are more specific in defining procrastination, in which they view it as the act of unnecessarily delaying tasks past the point of discomfort (Koinis, 2009). In line with these definitions, Popoola (2005) described procrastinator as someone who knows what one wants to do in some sense, has the ability to do it, is trying to do it, yet ended up without doing it.

Brief History of Procrastination

To characterize procrastination as a ‘modern malady’ (Farran, 2004) is erroneous. For several centuries, some famous historical references illustrate the human tendency towards dilatory behaviour has been the topical issue. As such, procrastination is not a new phenomenon in the history of mankind. As far back as 120 years ago, William James recognized the psychological cost of procrastination (Klassen, et al., 2008). In the 18th century, for instance, starting from the industrial revolution, Johnson (1751) described procrastination as “one of the weaknesses, which, in spite of the instructions of moralists, and the remonstrance of reason, prevail to a greater or less degree in every mind.”

Furthermore, a search of classical texts generates several illuminating references to the nature of procrastination. For instance, Steel (2007) traces procrastination references back to 800 B.C. For example, around 800 B.C, the Greek didactic poet Hesiod provided one of the earliest possible citations in relation to procrastination. Hesiod advised, “Do not put your work off till tomorrow and the day after; for a sluggish worker does not fill his barn, nor one who puts off his work: industry makes work go well, but a man who puts off work is always at hand-grips with ruin” (*Works and Days*, 1,413, as cited in Steel, 2007).

In his 1592 Play, *Henry VI, Part 1*, William Shakespeare advised, “defer no time, delays have dangerous ends” (3.2.37). Edward Young, a British poet, in his 1742 poem *Night Thoughts* lamented that

“procrastination is the thief of time” (Night 1, line 393, as cited in Rawson & Milner, 1986). Young lamentation brings attention to the temporal aspects of procrastination as a phenomenon, and also to the idea that when one misuses time, one fails to live life to its fullest potential (Farran, 2004).

Generally, this handful of historical quotes demonstrated that the tendency to procrastinate has played a role in the human experience for many years. As rightly observed by Asif (2011) that procrastination has been experienced “through out human history as evidenced by many proverbs and writings dating to Roman and Greek philosophers and poets as well as Hindu and other Eastern literature recorded as early as 500 B.C” (p.16). Considering these historical antecedents, it is therefore not surprising for earlier researchers (Ellis & Knaus, 1977; Ferrari, 2001; Knaus, 2000; Tice & Baumeister, 1997) to depict procrastination along pessimistic perspective with relatively negative consequences.

What Cause Procrastination?

Past research examining procrastination, according to Wolters (2003), has tended to focus on explaining procrastination in one of two ways. In one of the ways, procrastination is suggested to be the result of one or more fairly stable personality traits that cause individuals to procrastinate across many different contexts or situations. For example, researchers (e.g., Sandler & Buley, 1999; Steel, 2007) have attempted to demonstrate some links between individual’s tendency to procrastinate and underlying traits such as identity style, perfectionism, and self-consciousness (Wolters, 2003). Alternatively, another view emphasized that procrastination may result from less stable; more situational influences (O’Donoghue & Rabin, 1999; Whatley, 2009). Whatley (2009) observed that the two more prominent situational characteristics that influence procrastination behaviour involve temporal and aversive characteristics. For example, research has indicated that the further away the deadline is, the more likely people will procrastinate; and the more

aversive tasks lead to greater procrastination (Steel, 2007).

The ubiquitous nature of procrastination tends to raise important question as to “why people engage in such a complex and supposedly maladaptive behaviour” (Maffia, 2011, p. 17). Attempt to answer this question lead to numerous alternative explanations as to the causes of procrastination. According to Sokolowska (2009) procrastination literature cites reasons for procrastination are broadly categorized as: (1) personality based reasons, which involve individual differences and trait-based characteristics such as fear of failure and perfectionism; (2) task-related reasons, which are contextually based and link to variables such as task aversiveness or task difficulty; and (3) ability perception reasons, which include self-perceived impressions of self-related concepts such as self-esteem, self-concept, and self-efficacy.

The Nature of Procrastination

In their attempts to understand the phenomenon of procrastination, researchers have identified a number of characteristics that influence one’s tendency to procrastinate (Whatley, 2009). These characteristics, according to Steel (2007), can be categorized as dispositional and situational characteristics. Following this line of thinking, some researchers (e.g., Ferrari, Johnson, & McCown, 1995; Van Eerde, 2003) have generally regarded procrastination as an “immutable personality trait or disposition” (Moon & Illingworth, 2005), that is assumed to be stable across tasks, contexts, and time. To establish the stable or trait nature of procrastination, Steel (2007) poses an empirical question – whether people’s level of procrastination show consistency across time and situation. Steel went on to indicate that considerable empirical research suggests that procrastination has sufficient cross-temporal and situational stability. For example, Elliot’s (2002) longitudinal study found a correlation of .77 from test-retest data for participants who took Adult Inventory of procrastination, which indicate that

“procrastination is sufficiently stable to be a trait” (Steel, 2007, p.67).

This trait-based approach, observed Moon and Illingworth (2005), continues to drive the procrastination literature in spite of plentiful contradicting theoretical and empirical work. In this regard, several studies have demonstrated empirical support for temporal and situational variability in procrastination (e.g., Blunt & Pychyl, 2000; Tice & Baumeister, 1997). With this argument, the findings of Moon and Illingworth’s (2005) study suggest that “procrastination is not a stable personality disposition, but is, in fact, a dynamic behaviour that changes overtime depending on the interaction of tasks and contexts”(p.298).

This conclusion, however, raises many questions about academic procrastination which several studies attempt to answer. For instance, several longitudinal studies have been conducted to investigate the temporal changes in procrastination, or, rather, to describe how the dilatory behaviour of students fluctuated in the weeks leading up to an exam (e.g., Dewitte & Schouwenburg, 2002; Pychyl, Richard, & Salmon, 2000). Interestingly, reviews of these studies suggest that procrastination is characterized by curvilinear functions (Moon & Illingworth, 2005). Many studies, for example, found that as deadlines related with academic tasks approached, both high and low procrastinators showed decreased procrastination and increased study behaviour that followed curvilinear hyperbolic trajectory over time. Thus, procrastination may have particularly serious consequences for university students, whose lives are characterized by frequent deadlines. Tice and Baumeister (1997) reported that students who scored high on procrastination are found to be not only receiving low grades but also reported a high level of stress along with poor self-rated health.

Chu and Choi (2005) observed that most of the existing literature on procrastination has differentiated procrastinators from nonprocrastinators. As procrastination is seen as a self-handicapping behaviour that leads to wasted time, poor

performance, and increased stress, procrastinators have often been depicted as lazy or self-indulgent individuals who are unable to self-regulate (Ferrari, 2001). Nonprocrastination, on the other hand, has been associated with high efficiency and superior performance, and nonprocrastinators are often characterized as organized and highly motivated individuals (e.g., Bond & Feather, 1988; Chu & Choi, 2005).

In addition, even though the existing procrastination literature has associated negative connotation to procrastination, opined Chu and Choi (2005), some investigators have found some possible short-term benefits of procrastination. For example, Tice and Baumeister (1997) reported that procrastinators may experience less stress because they compress the stress into short period, compared to nonprocrastinators who do their worrying and hard work earlier. In this sense, procrastination can be viewed as a strategy that procrastinators use to regulate negative emotions, thereby making the individual better, at least temporarily. Therefore, in practical terms, Chu and Choi (2005) asserted, “procrastination does not necessarily have a negative impact on the effectiveness of the task performance” (p.246).

Similarly, Knaus (2000) posited that not all dilatory behaviours lead to negative consequences. For example, delays resulting from time spent in planning, gathering and organizing vital information can be beneficial. This is in line with what Schraw, Wadkins and Olafson (2007) referred to as “cognitive incubation” (p.21) – where delaying a task enables individuals to engage in more planning and reflection before they begin work. It is this line of thought that makes today’s procrastination researchers (e.g., Chu & Choi, 2005; Choi & Moran, 2009) to suggest that there might be more than one kind of procrastinator and that, in some cases, procrastination behaviour might leads to positive outcomes. However, some procrastination researchers argue that active procrastination is not procrastination but rather a form of purposeful delay (e.g., Ferrari, 2010; Pychyl, 2009).

Some Alternative Views on Procrastination

Procrastination, as prevalent as it is, is yet to be understood. When one examines the earlier procrastination literature, one will discover that this important human behaviour has been depicted as troubling and potentially harmful phenomenon (Steel, 2007). It has always been defined along pessimistic behavioural lines with negative consequences (Ferrari, 2001; Knaus, 2000; Tice & Baumeister, 1997). For example, Harriot and Ferrari (1996) found procrastination to be a common behaviour among students and adults, hindering their ability to successfully complete tasks on time. Tice and Baumeister (1997) reported that those students who rated high on procrastination received low grades, and also reported high level of stress along with poor performance.

Most of the existing literature on procrastination, observed Chu and Choi (2005), has differentiated procrastinators from nonprocrastinators. As procrastination has been considered as a self-handicapping behaviour that leads to time waste, poor performance, and more stress, researchers such as Ferrari (2001) have characterized procrastinators as lazy or self-indulgent individuals who are unable to self-regulate. Nonprocrastination, in contrast, has been linked to high efficiency, productivity, and superior performance; and nonprocrastinators are often characterized as organized and highly motivated individuals (Bond & Feather, 1988; Steel, 2007). That was the state of procrastination in the earlier procrastination literature.

However, it is interesting to note that “although both the practical literature and the academic literature have associated negative connotations to procrastination, investigators have found that procrastination can induce some short-term benefits” (Chu & Choi, 2005, p.246). Tice and Baumeister (1997), for example, reported that procrastinators have better physical health and experience less stress when deadlines are far off. In this sense, reasoned Chu and Choi (2005), procrastination can be viewed as a strategy that procrastinators use to regulate negative emotions,

making the individual feel better, at least temporarily. Tice and Baumeister (1997) further observed that in principle, whether a person does a task far ahead of a deadline or only slightly ahead of it does not necessarily affect the quality of the work. As such, Chu and Choi (2005) opined that, practically speaking, procrastination does not necessarily have a negative impact on the effectiveness of the task performance.

Similarly, Knaus (2000) argued that not all procrastination leads to negative consequences. For example, delays resulting from spending time planning, gathering, and organizing necessary preparatory information can be beneficial. Many people claim that they work better and faster under time pressure, and still finish the work on time and satisfactorily. It is therefore this line of thinking, observed Chu and Choi (2005) that suggests that “there might be more than one kind of procrastinator and that, in some cases, procrastination behaviour might lead to positive outcomes” (p.246).

Consequently, Chu and Choi (2005) came up with an alternative line of thinking and indicated that not all procrastination behaviours are “harmful or are precursors of negative consequences” (Choi & Moran, 2009, p.196). Specifically, Chu and Choi (2005) proposed two types of procrastinators – passive and active procrastinators – and examined whether they have distinct characteristics in relation to the use and perception of time, their self-efficacy beliefs, motivational orientation, stress-coping strategies, and their personal outcomes.

Passive and Active Procrastination

Introducing a new idea into the area of procrastination research, Chu and Choi (2005) address the possibility that not all procrastination behaviours have negative consequences. They conceptualized and distinguished two different types of procrastinators: passive and active procrastinators. Passive procrastinators, according to Chu and Moran (2009) are procrastinators in the traditional way, who postpone tasks that ought to be done until the last minute because of the inability to act in a timely manner. From a cognitive point of view, passive

procrastinators do not intend to procrastinate; however, they often end up postponing tasks for their inability to make timely decisions and to thereby act on them quickly (Chu & Choi, 2005). In addition, Bui (2007) described passive procrastinators as those “who are obsessed with feelings of self-doubt and incompetence, and who do not use their time purposively” (p.207). Bui further noted that during times of stress, passive procrastinators focus on their emotions instead of focusing on the task at hand.

Active procrastinators, on the other hand, by using their strong motivation under time pressure, make intentional decision to procrastinate and are able to complete tasks before deadlines and achieve satisfactory results (Chu & Moran, 2009). Furthermore, Chu and Choi (2005) observed that active procrastinators are capable of acting on their decisions in a timely manner; however, they deliberately suspend their actions and focus their attention on other important tasks at hand. Chu and Choi went on to assert that active procrastinators actually possess behaviours that correlate positively with self-efficacy and personal outcomes such as life satisfaction and higher grade point average (Bui, 2007). Bui maintained that active procrastinators, like nonprocrastinators, have the capacity to cope with the stress of approaching deadlines by focusing on the task at hand. Behaviourally, one may see passive and active procrastinators as one and the same, but Chu and Choi (2005) study found that active procrastinators use time pressure to their advantage and obtain more positive effects than do passive procrastinators. Thus, passive procrastinators differ from active procrastinators on cognitive, affective, and behavioural dimensions (Chu & Choi, 2005).

Affectively, as deadline looms, passive procrastinators feel highly pressured and become pessimistic in their ability to achieve satisfactory outcome. Their preoccupation with thoughts of self-doubt and inadequacy heighten the fear of failure and induce feelings of guilt and depression (Steel, Brothen, & Wambach, 2001). In contrast to passive procrastinators, active procrastinators “like to work under pressure” (Chu & Choi, 2005, p.247). The

feeling of being challenged and motivated protects active procrastinators against the suffering common in passive procrastinators when confronted with last-minute tasks. Thus, Chu and Choi further opined that active procrastination is viewed as a multifaceted phenomenon that includes cognitive (decision to procrastinate), affective (preference for time pressure), and behavioural (task completion by deadline) components as well as the physical results and their accompanying satisfaction.

Why “Active Procrastination”?

Some procrastination researchers regard “Active procrastination”, as defined by Chu and Choi (2005), as an oxymoron, and not procrastination at all. It may be a form of delay but not procrastination as has been generally defined in the literature. For instance, the term “active procrastination”, according to Pychyl (2009), is not only apparently contradictory but reveals a problem in understanding the difference between procrastination and delay. In this regards, understanding the difference between procrastination and other forms of delay is essential towards understanding procrastination itself. It is therefore essential to understand the fact that, all procrastination is delay, but not all delay is procrastination. Pychyl (2009) further reveals that researchers (e.g, Chu & Choi, 2005; Choi & Moran, 2009) are now confusing the terms. They argue that there can be positive aspects to procrastination. It is however suggested (Pychyl, 2009) that their work does reveal a paradox about delay (delay can be good or bad), but ultimately their own work is flawed with a mistake in language use and a misunderstanding about procrastination. Whatsoever, going along the line of this argument, procrastination remains procrastination. Other researches buttress this point.

Cao's (2012) study, for instance, tested this notion and investigates whether active procrastination entails desirable motivational and behavioural characteristics as Chu and Choi (2005) described. The finding of the study reveals that active procrastination was related mostly with the

maladaptive motivational and behavioural characteristics described in the self-regulated learning literature. Thus, the results of Cao's research challenged the notion that active procrastination is conducive to learning. It seems even more questionable to encourage procrastination before active procrastination is tried and proved beneficial to student learning and well-being. It also seems problematic to promote the notion that delaying one's work can actually be helpful and related to positive characteristics (Bui, 2007) before the concept of active procrastination is solidly grounded in the scientific evidence.

Researchers (e.g., Schraw et al., 2007) have proposed that the act of postponing academic work may be divided into a traditional definition of procrastination, viewed as maladaptive and adaptive forms of delay. Adaptive forms of delay may be more consistent with certain facets of self-regulated learning. Corkin, Yu and Lindt (2011) investigated this issue by examining whether the relations between aspects of self-regulated learning and active delay may be distinct from the relations these aspects of self-regulated learning have with procrastination. The findings of the study provide support that active delay is a distinct form of delay from procrastination that may be more positive due to its associations with some adaptive self-regulatory processes and academic achievement. This is in line with Steel (2007) assertion that procrastination is characteristically a failure in self-regulation (Steel, 2007).

In addition, Taura (2014) carried out an investigation to examine motivational beliefs (self-efficacy, extrinsic goal orientation, intrinsic goal orientation, task value, and test anxiety), perfectionism as antecedents of active procrastination with self-regulation as the mediator in this relationship; and also looked into academic achievement as consequence of active procrastination. Based on the findings, the independent variables of the study proved to be poor predictors of active procrastination. In other words, the findings failed to support the hypotheses that

motivational beliefs variables have direct relationships with active procrastination. However, self-regulation strategies were found to significantly mediate the relationships between motivational beliefs variables and active procrastination. Thus, ability to self-regulate plays an important role in the dynamics of procrastination. Self-regulation may be a key to understanding procrastination. In this regard, active procrastination, contrary to the Chu and Choi's (2005) claim that it is a 'positive' form of procrastination, may be a form of self-regulation strategy employed by individuals to attain desirable outcomes.

CONCLUSION

Contrary to the research findings (e.g., Choi & Moran, 2009; Chu & Choi, 2005; Schraw, Wadkins, & Olafson, 2007) suggesting that some cases of procrastination behaviour might lead to positive outcomes; and that there might be more than one kind of procrastinator, the common assumptions show that procrastination is potentially harmful phenomena (Steel, 2007) that leads to negative consequences. The idea that delaying one's task can actually be helpful and relates to positive characteristics is an issue that relates to delay. And delay is a necessary and daily part of our lives as we manage goal pursuit across a variety of roles and contexts (Pychyl). As such, deliberate, thoughtful delay of action should not be confused with the lack of self-regulatory ability known as procrastination. It is possible that some form of procrastination may actually enhance the well-being and performance of individuals. This is evidently clear from the procrastination literature reviews in which procrastination researchers (e.g., Ferrari, 2001; Steel, 2007; Tice & Baumeister, 1997) who viewed procrastination as harmful and dysfunctional acknowledged that procrastination can induce some short-term benefits. They, however, reported that procrastination produces stress and may have an adverse effect on health and feeling of well-being. In this regard, active procrastination, contrary to the Chu and Choi's (2005) claim that it is a 'positive' form of procrastination, may be a form of

self-regulation strategy employed by individuals to attain desirable outcomes.

RECOMMENDATIONS

1. From the foregoing discussion, it is clear that procrastination, as an important human behaviour is yet to be fully understood. Therefore, if procrastination is to be understood, researchers need to be more rigorous in empirical investigation of the phenomenon.
2. The Chu and Choi' (2005) novel idea introduced for the area of procrastination research is a good omen towards understanding procrastination as a behaviour. However, comparing deliberate, thoughtful delay with procrastination needs to be reconsidered. Therefore, researchers' efforts, in future research, should be geared towards investigating procrastination in relation to self-regulation strategies for better understanding of the phenomenon and its dynamics.
3. In addition, in the literature procrastination is presented as an immutable personality trait or disposition, on the one end, and that it is conceptualized as a situation specific behaviour, on the other, need to be investigated further. Specifically, empirical studies into the behavioural measures of procrastination need to be pursued to see whether procrastination is a dynamic behaviour that changes over time.

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