Mental Time Travel to the Future: The Effect of Episodic Future Thinking on Academic Procrastination

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Abstract: This study explored the effect of episodic future thinking on academic procrastination using a 2x2 univariate mixed design with pretest-posttest. Fifty-three undergraduate students were randomly assigned to engage in episodic future thinking (EFT; experimental group) or semantic future thinking (SFT; control group). Academic procrastination scores were measured during the pretest and posttest. Results indicated a significant difference in academic procrastination between pretest and posttest in the EFT condition, supporting the hypothesis (H1) that participants will show lower academic procrastination after engaging in EFT. However, there was no significant difference in academic procrastination between participants in the EFT and SFT conditions, failing to support the hypothesis (H2) that engaging in EFT will result in lower academic procrastination than engaging in SFT. Current findings highlighted EFT's potential to reduce the tendency to procrastinate by improving self-regulation.

Keywords: episodic future thinking, academic procrastination, self-regulation

INTRODUCTION, CONTEXT AND RESEARCH OBJECTIVES

Academic procrastination, a form of self-regulatory failure defined as the tendency to deliberately put off academic tasks that require completion (Schraw et al., 2007), has always attracted researchers' interest due to its widespread prevalence among university students. Extensive research has highlighted its detrimental effects across various life domains, including academic performance, quality of life, physical and mental health, and interpersonal relationships (Rozental et al., 2022; Schraw et al., 2007; Zacks & Hen, 2018). Despite awareness of these consequences, many students continue to procrastinate.

One primary reason students procrastinate may be that they prefer the immediate gratification gained from procrastinating, without considering the potential long-term consequences (Rebetez et al. 2016). Facilitating a future-oriented mindset may then be an approach to improve this behavioural problem by allowing them to consider the value of future rewards and the potential consequences of procrastinating. Episodic future thinking (EFT), defined as mentally projecting oneself into the future to pre-experience an event (Atance & O'Neill, 2001), is a promising cognitive technique that may facilitate this mindset, with recent studies demonstrating consistent efficacy in the tendency to delay gratification (Chiou & Wu, 2017; O'Donnell et al., 2017; Wu et al., 2017). Hence, to enhance students' self-control and cultivate a healthier academic habit, this study seeks to examine the effect of EFT on academic procrastination.

LITERATURE REVIEW/THEORETICAL FRAMEWORK

Episodic Future Thinking and Semantic Future Thinking

To understand EFT and SFT, one must first understand the concepts of episodic memory and semantic memory. Episodic memory involves recalling personally experienced events, encompassing details such as time, place, associated emotions, and contextual information about the event itself. In contrast, semantic memory refers to general knowledge about the world (Tulving, 1993). Their distinction can easily be understood by "remembering" versus "knowing". For instance, remembering a car accident is an example of episodic memory; knowing that Kuala Lumpur is the capital of Malaysia represents semantic memory. Tulving (1993) mentioned that the episodic memory system makes mental time travel possible, allowing individuals to revisit past events and pre-experience hypothetical future events. It thus serves as a key component in EFT, allowing individuals to retrieve and manipulate elements from past experiences to construct hypothetical future events (Schacter et al., 2017). While semantic memory also contributes to EFT, it only provides the knowledge and facts required to help construct future scenarios. Conversely, semantic future thinking (SFT), defined as general knowledge about a future event without projecting oneself into the future (Atance & O'Neill, 2001), primarily relies on semantic memory. The differences between EFT and SFT can be illustrated by envisioning oneself visiting a tourist attraction on an upcoming vacation versus knowing how to reach the destination.

Episodic Future Thinking in Reducing Impulsive Decision-Making

EFT involves greater details of sensory attributes such as colours, shapes, and sound, whereas SFT includes only knowledge about future events. Consequently, the mental images created while engaging in EFT will help reduce the psychological distance between the future and the present and increase the sense of connection to future events (Hershfield, 2011). This heightened connectedness and perception that the future is near play a part in how EFT moderate impulsive decisions. Individuals may feel the loss resulting from choosing the immediate reward over a delayed one to be stronger, especially when the future event is something they look forward to occurring. This results in better self-control and motivates individuals to behave in ways that will benefit them in the future. In contrast, SFT does not involve mentally pre-experiencing future events; the sense of closeness between the future and the present, as well as the connection to future events, is very weak or may even be considered non-existent. Thus, SFT is unlikely to produce the same effect as EFT.

The underlying mechanism that causes EFT to reduce impulsive decision-making is that engaging in EFT stimulates brain regions associated with prospective thinking, specifically the prefrontal cortex (Atance & O'Neill, 2001), which plays a critical role in self-regulation, planning, and evaluating potential outcomes. This region enables the assessment of long-term consequences of present actions during the decision-making process. When individuals recognise their ability to influence future outcomes through present actions, they are better equipped to resist immediate impulses and make more deliberate and future-oriented choices. To add on, imagining future events with greater vividness provides a clearer image of the future and its associated consequences, which further intensifies EFT's effect, resulting in greater ability to delay gratification (Peters & Büchel, 2010; van Gelder et al., 2013).

Peters and Büchel's study (2010), utilising fMRI and neural coupling analyses, highlighted the crucial role of envisioning possible future scenarios in understanding the value of future rewards and recognising the advantages of acting to obtain them. They discovered two important findings; firstly, they learned that decision-making accuracy improved when the neural mechanisms associated with future-oriented thinking are engaged. Secondly, using personally relevant information (i.e., episodic memory) to envision future rewards activates the future-thinking network, enhancing one's sense of agency and ability to prioritise future rewards. These findings further supported the role of a future-oriented mindset in facilitating beneficial decision-making and the efficacy of EFT as a technique to enhance this mindset.

Past research examining the effect of EFT consistently demonstrates its significant impact in reducing impulsive decision-making and promoting goal-directed behaviours across various contexts. Envisioning specific future events or future events involving an idealised version of oneself (e.g., life as a non-smoker), has been shown to result in significant improvements in behaviours being studied, such as reducing smoking, decreasing the likelihood of cheating, and increasing commitment towards pro-environmental practices (Chiou & Wu, 2017; Lee et al., 2020; Wu et al., 2017). Researchers attributed their findings to EFT's ability to enhance individuals' sense of closeness and connection to their future selves. This motivates more future-oriented choices and encourages individuals to adopt self-regulatory or goal-directed behaviours, helping them overcome undesirable habits and behaviours. In contrast, imagining vague future events or simply knowing future benefits or risks did not yield the same effect. Additionally, Dassen et al. (2016) found that EFT showed the most pronounced effect when the imagined future is closely linked to the target behaviour for change or personal goals.

The current literature calls for further studies to explore the effect of EFT on a wider range of behaviours. Researchers have recommended the use of a pretest-posttest design to investigate the effectiveness of EFT in reducing immediate gratification, as well as long-term investigation to assess its lasting effect. Academic procrastination is a variable that has not yet been studied in relation to EFT and is of particular interest because previous studies have shown that procrastinators often struggle with self-regulation due to their present-oriented mindset, causing them less likely to consider the future consequences of their present actions and to prioritise immediate needs over future ones (Rebetez et al., 2016). This leads to impulsive decisions overriding rational judgement, gradually affecting academic performance, well-being, health, and emotional state (Rozental et al., 2022; Schraw et al., 2007; Zacks & Hen, 2018). Moreover, interventions for preventing or reducing academic procrastination are scarce; this study thus holds significant implications for addressing this need.

The Present Study

This study aimed to investigate whether engaging in EFT affects academic procrastination. Two hypotheses are proposed – (H1) Participants will show lower academic procrastination after engaging in EFT compared to before engaging in EFT and (H2) engaging in EFT will result in lower academic procrastination than engaging in SFT.

The first independent variable (IV), *type of condition*, refers to the experimental and control conditions employed in this study, which are EFT and SFT, respectively. The second IV, *test time*, refers to the pretest and posttest for academic procrastination. The dependent variable (DV), *academic procrastination*, is defined as the tendency to deliberately put off academic tasks that require completion (Schraw et al., 2007).

METHOD

Design

This experimental study employed a 2 x 2 univariate mixed design with pretest-posttest. The first IV was a between-subjects variable with two levels – EFT condition (experimental group) and SFT condition (control group), where participants were randomly assigned to one of the conditions. Participants in the EFT condition performed a writing task followed by a thinking task; participants in the SFT condition only performed a writing task.

The second IV was a within-subjects variable with two levels – pretest and posttest for academic procrastination. Pretest was completed in the first session of the experiment before participants from both conditions engaged in the writing task; posttest was completed in the final session. The academic procrastination scores collected were used to assess differences in academic procrastination before and after the interventions.

The DV, academic procrastination, was measured by the total score on the Academic Procrastination State Inventory-procrastination subscale (APSI-p; Schouwenburg, 1995), whereby a higher total score indicates a higher tendency to procrastinate. The total scores were measured twice in the experiment, during pretest and posttest.

Participants

G*Power calculation with an effect size of 0.25, power of 0.95, and alpha level of 0.05 (Faul et al., 2007) determined a minimum sample size of 54. Fifty-four Psychology undergraduates from a private university were recruited; only 53 responses were collected at the end of the study as one participant failed to attend the session. Participants were aged between 18 to 25 years old (M = 20.92, SD = 0.83), consisting of 49 females (92.5%), three males (5.7%), and one identified as non-binary (1.9%). Fifty-two of them were Malaysians, and one was a non-Malaysian.

Only Psychology undergraduates, aged between 18 and 25 years old, and who were not diagnosed with any psychological disorders were eligible to participate. This criterion was set because the mental condition of individuals with psychopathology could impair the retrieval of episodic memories, which could subsequently impair the mental simulation of future events (Hallford et al., 2018), reducing the effectiveness of EFT. Course credit was given as compensation upon completing the entire study.

Materials

Demographic Form

A demographic form was administered to collect participants' basic information, including age, gender, nationality, and ethnicity. The form also included two yes/no questions related to sampling criteria.

Writing Task

A writing task was administered to participants in both conditions that required them to list three positive life events (EFT condition) or benefits (SFT condition) that they look forward to occurring at the end of the semester if they successfully stop procrastinating now. The task was adapted from Chiou and Wu's study (2017), and the instructions were modified by changing the condition from "if you successfully quit smoking now" to "if you successfully stop procrastinating now". The purpose of this task was to promote goal attainment among participants.

Thinking Task

A three-minute thinking task was administered to participants in the EFT condition, requiring them to close their eyes and vividly visualise and pre-experience the events they listed for one minute each. The task was also adapted from Chiou and Wu's study (2017) without any modification to the instructions. The purpose of this task was for participants to pre-experience future scenarios, to strengthen the connection between their present and future selves, allowing them to consider the long-term costs of procrastinating and potentially increasing motivation to delay gratification and reduce the tendency to procrastinate (O'Donnell et al., 2017).

Academic Procrastination State Inventory-Procrastination Subscale

To measure academic procrastination, the procrastination subscale of the Academic Procrastination State Inventory (APSI-p; Schouwenburg, 1995) was used. The APSI is a 23-item self-reported questionnaire constructed to measure changes or fluctuations in academic procrastination. It comprises three subscales: procrastination, fear of failure, and lack of motivation. Only the procrastination subscale, consisting of 13 items assessing academic procrastinatory behaviour, was used as it matched what this study intended to measure. It has a high internal consistency reliability (α = .90 [Schouwenburg, 1995]). In the present study, the subscale also has good internal reliability both at pretest (α = .89) and posttest (α =. 87).

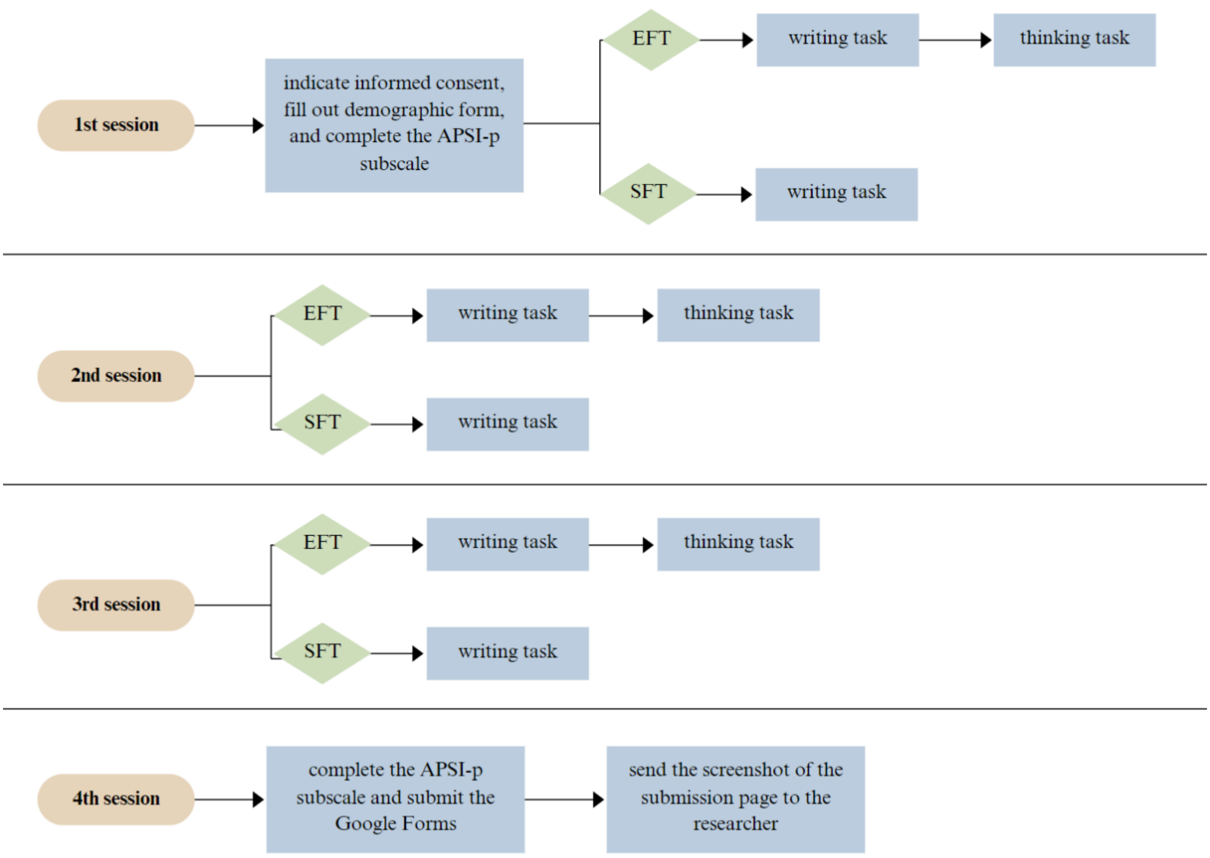
Participants were asked to rate the frequency of engaging in the behaviours or thoughts as described by the items during the last week on a 5-point Likert scale, ranging from 1 (*not at all*) to 5 (*all the time*). Examples of the items include "Drifted off into daydreams while studying" and "Put off the completion of a task" (Schouwenburg, 1995, p. 88). The final score is obtained by first reversing the score for Item 2 and then summing up all 13 items. A higher total score indicates a higher tendency to procrastinate.

Procedure

This four-week experiment consisted of one session per week (each spaced one week apart), with multiple individual time slots available per session. Each slot had only one participant, and each participant was required to attend all four sessions. The first three sessions were held on campus, while the final session was completed via online form. Google Forms was used as the medium for participants to complete the experiment throughout all sessions. Participants signed up for the experiment by selecting a time slot on a research recruitment platform. They arrived at the designated venue at their selected time slot and were provided a Google Forms link at the beginning of each on-campus session.

In the first session, participants indicated informed consent by ticking the “I agree” checkbox on an online consent form and had filled out a demographic form. Participants were then asked to fill out their participant code and complete the APSI-p subscale. Subsequently, participants in the EFT condition completed a short writing task, followed by a 3-minute thinking task, whereas participants in the SFT condition only completed a short writing task. After submitting the Google Forms, participants were thanked and allowed to leave. A week after the first session, participants returned for the second session, where they completed the same writing and/or thinking task. The same procedure was followed for the third session, which took place a week after the second session. A week after the third session, participants received a follow-up email from the researcher containing a Google Forms link for the final session and were instructed to complete it within 24 hours. In the Google Forms, participants were asked to fill out their participant code and complete the APSI-p subscale. Upon submitting the form, participants were required to send a screenshot of the submission page as proof of submission to the researcher. Each session lasted no longer than 15 minutes. Course credit was awarded to participants upon completion of the entire experiment.

Figure 1
A Graphical Representation of the Experimental Procedure



RESULTS

Descriptive Statistics

Descriptive statistics indicated that academic procrastination was higher at pretest (*M* = 39.42, *SE* = 1.21, 95% CI [36.99, 41.85]) than at posttest (*M* = 36.31, *SE* = 1.19, 95% CI [33.93, 38.69]). On the other hand, participants in the EFT condition (*M* = 36.96, *SE* = 1.47, 95% CI [34.02, 39.91]) had lower academic procrastination than participants in the SFT condition (*M* = 38.77, *SE* = 1.50, 95% CI [35.77, 41.77]).

Assumption Tests

The assumption of normality for academic procrastination was met at pretest (*Shapiro-Wilk*(53) = .98, *p* = .421) and at posttest (*Shapiro-Wilk*(53) = .99, *p* = .803). Thus, the overall assumption of normality had been met. The assumption of sphericity was met as each IV had only two levels.

Inferential Statistics

The ANOVA test (see Table 1) revealed a statistically significant difference in academic procrastination between pretest and posttest of both conditions, $F(1, 51) = 7.14$, $p = .010$, *partial* η^2 = 0.12. Specifically, participants reported significantly higher academic procrastination at pretest than at posttest ($M_{diff} = 3.11$, *SE* = 1.16, *p* = .010, 95% CI [0.77, 5.45]). However, there was no statistically significant difference in academic procrastination between participants in the EFT and SFT conditions, $F(1, 51) = 0.74$, $p = .392$, *partial* η^2 = 0.01. There was also no statistically significant interaction effect of test time and type of condition on academic procrastination, $F(1, 51) = 1.04$, $p = .313$, *partial* $\eta^2 = 0.02$. Based on the results, H2 was not supported.

Table 1
Model Summary for Mixed Analysis of Variances in Academic Procrastination

Source	SS	*df*	MS	*F*	*p*	η^2
Between-subjects effect						
Type of condition	86.43	1	86.43	0.74	.392	.01
Error	5925.16	51	116.18			
Within-subjects effects						
Test time	256.17	1	256.17	7.14	.010	.12
Interaction	37.30	1	37.30	1.04	.313	.02
Error	1828.74	51	35.86			

Supplementary Results

A follow-up paired-samples t-test was conducted to examine the effect of test time on academic procrastination in the EFT condition, specifically in order to test H1.

The assumption of paired samples correlations between pretest scores and posttest scores in the EFT condition was met, $r(27) = .39$, $p = .045$. Results (see Table 2) showed a statistically significant difference in academic procrastination between pretest and posttest in the EFT condition, $t(26) = 2.28$, $p = .031$, 95% CI [0.42, 8.18], whereby participants reported significantly lower academic procrastination at posttest ($M = 34.81$, $SD = 7.91$) than at pretest ($M = 39.11$, $SD = 9.64$). Consequently, H1 was supported.

Table 2
Results of Paired Samples t-Test Comparing Difference in Academic Procrastination between Pretest and Posttest in EFT Condition

Variable	Pretest		Posttest		*t*(26)	*p*
	M	*SD*	*M*	*SD*		
Academic Procrastination	39.11	9.64	34.81	7.91	2.28	.031*

$^*p < .05$

DISCUSSION

Summary of Findings

Academic procrastination scores from both EFT and SFT conditions were significantly lower at posttest than at pretest. Nonetheless, the difference in academic procrastination between participants in the EFT and SFT conditions, and the interaction effect between test time and type of condition on academic procrastination were not significant. Hence, the hypothesis that engaging in EFT will result in lower academic procrastination than engaging in SFT was not supported. On the contrary, further analysis examining the effect of test time on academic procrastination in the EFT condition specifically revealed significantly lower academic procrastination scores at posttest. Thus, the hypothesis that participants will show lower academic procrastination after engaging in EFT compared to before engaging in EFT was supported.

Discussion of Findings

Current results were inconsistent with most of the past studies, which examined the effect of EFT in comparison with SFT or control conditions. Past research has consistently demonstrated that merely possessing the knowledge of possible future outcomes without mentally experiencing it (i.e., SFT) failed to yield any impact on reducing or modifying the target behaviour for change, such as smoking cessation, pro-environmental behaviour, and cheating (Chiou & Wu, 2017; Dassen et al., 2016; Wu et al., 2017). Only those who mentally project themselves into the future to pre-experience a future event (i.e., EFT) were effective in facilitating delayed gratification and reducing impulsive decisions or behaviours. Interestingly, in this study, the researcher could not be confident in inferring the effectiveness of EFT because the paired-samples t-test revealed that participants showed significantly lower academic procrastination after engaging in EFT, but the effect was not significant when compared to the SFT condition. It seems that both EFT and SFT exerted an effect on reducing academic procrastination, with EFT showing a slightly stronger effect. Despite that, the results should be interpreted with caution, given that SFT should not have any effect on reducing academic procrastination and that EFT's effect was not significant when compared to SFT.

A plausible reason for this inconsistency may be that participants who engaged in SFT may still develop an awareness of the potential future consequences of their current action, despite not engaging in pre-experiencing the future, or in other words, experiencing the same effect as EFT. This awareness may arise when they are completing the writing task. It could have motivated them to stop procrastinating, ultimately leading to the observed reduction in academic procrastination and resulting in a non-significant difference between the two conditions. Yet, this remains a hypothetical assumption by the researcher, as existing research has not found SFT to have any impact on target behaviour for change; thus, lacking a supported rationale or theoretical framework to explain the potential effect of SFT.

Other than that, the vividness of participants' mental imagery (i.e., how clear and realistic the mental images they create in their minds are) (Hershfield, 2011) may be a theoretical explanation that could explain why EFT and SFT had similar reductions in academic procrastination scores. Hershfield (2011) and van Gelder et al. (2013) explained that a more vividly imagined future scenario will not only provide individuals with a clearer image of the future consequences of their current decisions but will also amplify the emotions associated with the future event. Individuals may then feel a closer connection to it, making them more likely to delay immediate gratification. With that being said, participants may vary in their ability to vividly imagine future events. Those with more vivid imagery may experience a greater motivation to delay gratification and reduce procrastination, while those with less vivid imagery may not experience the same cognitive effect, leading to differences in outcomes. Reflecting on the current study, participants who showed minimal reduction in academic procrastination scores at posttest may be attributed to their limited ability to form vivid imagery, hindering the overall experience of EFT in motivating them to delay gratification and reduce procrastination.

Lastly, the significant reduction in academic procrastination scores observed in the EFT group at posttest may be attributed to mechanisms beyond the cognitive processes associated with EFT. An alternative explanation may be the influence of emotion-driven factors. Procrastinatory behaviours are often driven by negative emotions that arise when a task is perceived as aversive, such as being boring, difficult, or meaningless (Sirois & Pychyl, 2013). For instance, an individual may experience anxiety and stress when facing a challenging university assignment. To avoid these unpleasant feelings, they may choose to delay or avoid the task altogether, ultimately resulting in procrastination. However, the positive emotions elicited through the thinking tasks, when participants were mentally visualising the positive outcomes if they stopped procrastinating now, may have been strong enough to counteract the negative feelings associated with the task. This emotional boost could have enhanced their motivation to take action, thereby reducing procrastination by the end of the experiment. This suggests that emotions may play a significant role in behaviour regulation. Nevertheless, further research is needed to better understand the cognitive and emotional mechanisms underlying the effect of EFT.

Limitations and Suggestions for Improvements

The researcher would like to acknowledge several limitations present in this study that may influence the interpretation of results. Firstly, the sample size of this experiment was relatively small. G*Power suggested a minimum sample size of 54 participants; however, the final sample size of this experiment consisted of 53 participants. The statistical power to detect a true effect in the variables being studied is thus reduced to some extent, and in turn, increases the risk of both Type I and Type II errors (Button et al., 2013; Kelter, 2021). This means that the likelihood of detecting a true effect is small, or if a significant effect is found, it is likely due to chance or error. Consequently, it compromises the reliability and validity of the study's results.

Secondly, the sample population of this study focused solely on psychology undergraduates from a private university and the gender distribution was heavily unequal. Whether the effectiveness of EFT is applicable across students of different age groups, education levels, or majors remains a question to be answered in future research. Therefore, the findings of this study have low external validity and may not be easily generalised to the broader student population.

Thirdly, a notable limitation of this experiment was that the researcher had no control over what participants were actually thinking in their minds during the thinking task. The effectiveness of EFT in reducing the tendency to procrastinate ultimately depends on their ability to vividly imagine and mentally pre-experience future events and their positive outcomes, which in turn foster a future-oriented mindset and prompt the consideration of long-term consequences (Wu et al., 2017). Failure to engage in this cognitive process correctly may compromise the desired effect, posing a threat to the study's internal validity.

Building upon the previously mentioned limitation, the researcher also did not consider and measure the vividness of participants' mental imagery, which could act as a confounding variable. As mentioned above, differences in the ability to form vivid imagery may influence the overall experience of EFT, leading to varied effects on reducing academic procrastination (Hershfield, 2011; van Gelder et al., 2013). This raises questions about the interpretation of results – whether those whose academic procrastination scores did not change much after engaging in EFT were due to ineffectiveness of the technique or other factors.

To overcome the above limitations, future research should recruit a larger and more diverse sample size, including students from different age groups, education levels, and areas of study. The study sample will be more representative of the general student population and offer further insight into the generalisability of the results. With a larger sample size, the power of statistical tests in detecting a true effect is also increased, giving the researcher a larger chance of making accurate conclusions on the effect they are studying.

Moreover, future research should consider individual differences in vividness of mental imagery by assessing participants' ability to generate images in their minds before engaging in EFT. Studying imagery vividness as a moderator can determine whether it will significantly influence the relationship between EFT and academic procrastination (or other behaviour of interest), and subsequent post-hoc analyses can evaluate how the effectiveness of EFT differs between individuals with high or low imagery vividness. Given that past studies suggested that vivid imagery is beneficial in inducing delayed gratification (Peters & Büchel, 2010; van Gelder et al., 2013), theoretically speaking, those with less vivid imagery may not receive the same level of benefit from the EFT technique. The findings from the moderation analysis will not only provide theoretical insights into how individual differences in cognitive processes influence the outcome of using EFT in addressing behavioural outcomes but also lay the groundwork for researchers to develop and test alternative strategies to promote a future-oriented mindset for individuals with low imagery vividness.

IMPLICATIONS AND CONCLUSION

Based on the current findings, the researcher could not be confident in the effectiveness of EFT because participants in the SFT condition also showed a reduction in academic procrastination. This outcome contradicts past studies, which suggested that SFT should not have any effect on reducing the target behaviour for change (Chiou & Wu, 2017; Kuo et al., 2016; Wu et al., 2017). That being said, it is noteworthy that academic procrastination scores were significantly lower after engaging in EFT. Therefore, there remain important implications for the current study.

This study, which for the first time utilised a pretest-posttest design and multiple EFT sessions, offered valuable insight into the potential of using EFT to reduce students' tendency to procrastinate. The EFT technique can be integrated with existing interventions aimed at reducing procrastinating behaviours resulting from the inability to delay immediate gratification, serving as a supplement to boost the effectiveness of the intervention. Alternatively, EFT is a cognitive ability that can be learned and can therefore function as a standalone method to manage self-control in our daily lives through repeated training. A merit is that the technique is easy to master and can be done by oneself as long as one understands the essence of EFT. Either alternative enhances one's ability to engage in future-oriented thinking. In the long run, it will not only contribute insights into cognitive training but also facilitate the development of evidence-based practices to address procrastinating behaviours.

In conclusion, the present study demonstrated the potential for reducing academic procrastination through mentally projecting oneself into the future to pre-experience positive life events after stopping procrastination. However, further investigation is necessary to fully evaluate the effectiveness of EFT in addressing academic procrastination, as in this study, it did not show a significant effect when compared to SFT. Nevertheless, drawing from existing literature, the researcher maintains that EFT is a promising technique in activating a future-oriented mindset, thereby inducing individuals to delay gratification and procrastinate less. Moving forward, future research is encouraged to explore the broader applicability of EFT in modifying undesirable behaviours resulting from self-regulation failure, as well as how the technique can be integrated into everyday life to improve people's overall well-being and health.

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STATEMENT OF ETHICAL CLEARANCE

The study was cleared for data collection by the Ethics Review Board, Department of Psychology, HELP University. Ethical clearance was granted on 16th October 2023.

DATA AVAILABILITY STATEMENT

Data is available upon request from the author.

DECLARATION OF ORIGINALITY

The author declares that the current submission is original work and is not being considered for publication elsewhere. The author certifies that the referenced work used in this submission has been properly acknowledged in text and reference list.

CONFLICT OF INTEREST STATEMENT

The author reports no conflicts of interest.

PUBLISHER'S NOTE

The views and claims expressed in this article do not represent the Board of Editors and the Reviewers.

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