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From to-do to too difficult: Understanding task-based procrastination

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Abstract

Procrastination is the act of needlessly delaying tasks to the point of subjective discomfort (Solomon & Rothblum, 1984). This theoretical paper views procrastination from a task-based perspective, evaluating how the design of academic tasks unintentionally encourages procrastination in students. This paper shifts focus away from commonly studied reasons for procrastination, such as task aversiveness, fear of failure, anxiety, and perfectionism, which have largely emphasised individual traits. Instead, it highlights the contribution of external factors such as cognitive overload and goal clarity in encouraging delays in task completion. Much of this procrastination stems not from a lack of motivation or inability to perform but from the attempt to deflect mentally exhausting or complicated tasks. The present paper examines how features of task design, such as clarity, structure, and cognitive demands, shape students' perceptions of difficulty and, in turn, influence task initiation. The paper also posits that simplifying large tasks into manageable sub-goals can significantly reduce procrastination behaviours.

Keywords

- Academic procrastination
- Task design
- Cognitive load
- Instructional clarity
- Task appraisal
- Self-regulated learning

Introduction

Procrastination is a widespread phenomenon in academic settings and is reported by nearly 50% of college students (Ablison, 2024). Despite acknowledging its negative consequences for academic performance and mental well-being, students continue to postpone task engagement to momentarily reduce discomfort. Such delays arise not from lack of awareness or intention but from the need for immediate relief. Prolonged avoidance of tasks eventually results in increased stress and anxiety as the deadline grows closer and as available time is perceived as limited in relation to the demands of

the task (Babayigit et al., 2024; Jochmann et al., 2024).

Solomon and Rothblum (1984) defined procrastination as the act of needlessly delaying tasks to the point of subjective discomfort. It is crucial to keep excessive procrastination in check, especially in academic settings where self-regulatory learning is essential. Poor performance, surface-level learning, loss of creativity and authenticity, mental fatigue, and anxiety are all adverse consequences of chronic procrastination, which can hamper academic progress and long-term development.

Existing psychological research has heavily emphasised the role of individual traits, such as perfectionism, high impulsivity, low self-control, low self-confidence, fear of failure, and short attention span as drivers of procrastination (Steel, 2007). While these findings have been invaluable, the literature often provides student-centred explanations for academic delays and overlooks the features of the task itself. The clarity of instructions, their complexity, and/or demand for cognitive resources can positively reinforce or deter procrastination.

The present paper adopts a task-based perspective, proposing that the design and structure of academic assignments shape how tasks are appraised by students, thereby influencing whether and when task initiation occurs. In this view, perceptions of difficulty or overwhelm are not treated as individual shortcomings, but as predictable psychological responses to how tasks are designed and presented. This underscores the relevance of devising tasks in ways that yield the most understanding and optimal performance while simultaneously lowering the extraneous burden of interpreting confusing instructions.

Literature Review

Trait-Based Explanations

Steel's (2007) meta-analysis, based on 122 studies and 691 correlations, provided a foundational understanding of the causes of procrastination. His work suggested that procrastination is not simply a matter of poor time management, but rather a failure of motivation and emotional regulation. Like much of existing literature that emphasises trait-based predictors, Steel highlights impulsiveness and low conscientiousness as the greatest predictors of procrastination, while other traits like low efficacy, sensation seeking, and fear of failure showed weaker correlations.

Notably, the paper found task aversiveness and task delay to be among the most influential predictors, on par or even stronger than the personality variables. This points to a shift in focus from purely trait-based explanations to task-related factors, an area left underexplored. Steel's (2007) Temporal Motivation Theory (TMT) bridges trait and task factors by explaining how delay, impulsivity, and task value interact to shape motivation. However, while acknowledging task-related influences, these factors were

not examined in depth with respect to instructional or task design, particularly in educational contexts. While Steel's findings opened the door to examining task-related factors, his analysis remained somewhat unclear. Ackerman and Gross (2005) provided a more detailed look at how task appeal, clarity, and environmental structure can shape procrastination behaviours.

Task Characteristics and Procrastination

Ackerman and Gross (2005) found that task appeal is a key situational factor in procrastination. It was seen that assignments that were considered interesting were less likely to be postponed, which means that when students found tasks relatable and relevant, cognitively engaging, or requiring a variety of skills, their willingness to begin sooner was more than when they found it tedious or mentally taxing. Such tasks are less aversive and pose a smaller risk of failure, thus reducing the threat to self-efficacy.

In addition to the task appeal, the structure and clarity of assignment instructions also played a significant role. Ambiguous and poorly defined instructions increased procrastination, whereas clear guidance explicitly conveyed performance expectations. This eliminated the need to decipher task requirements, reducing the feelings of being confused and overwhelmed. In this sense, assignment clarity has been documented as an antidote for procrastination.

Beyond individual traits, the study highlighted the influence of environmental cues. Classroom norms and reward systems also influence how soon students engage in activities. In other words, if teachers and peers set expectations for prompt work resolution or if the students are rewarded for turning in assignments earlier than their due date, they are more likely to comply. Additionally, if complicated tasks are structured and presented in smaller, more manageable chunks, it may urge them to begin ahead of time and progress steadily. This reduces the perceived burden of completing one huge assignment, allowing room for achieving intermediary milestones. Therefore, structuring tasks with these factors in mind may promote healthier academic work habits.

Interestingly, despite common assumptions, objective task difficulty or time demands alone showed little association with procrastination, highlighting the role of how tasks are structured and interpreted rather than their inherent complexity. This emphasises the need to look beyond objective difficulty and toward task design as a primary driver of procrastination.

Building on these structural insights, Blunt (2021) introduced the role of momentary task appraisal and deadline clarity, showing that students' in-the-moment task appraisals can, in some contexts, be more predictive of delay than stable personality traits.

Dietrich et al. (2019) thesis explained the role of personal relevance in academic procrastination. Drawing on expectancy-value theory (Wigfield & Eccles, 2000), the researchers focused on the 'attainment value' of a task, or in simpler terms, how important a task's successful completion is to the student. The more importance a student places on something, the more likely they are to undertake it.

While task value plays a motivational role, it also highlights how structural elements like deadline clarity shape engagement. In line with previous literature on procrastination and temporal motivation (e.g., Steel, 2007), which spoke of a rise in procrastination as deadlines drew nearer, their results implied that clear, concrete deadlines allow students to visualise the amount of time they have and devise a plan that best suits their capacity and abilities. Providing specific deadlines is a task design feature that can mitigate procrastination. Most importantly, their findings indicate that momentary task appraisals, which are shaped by contextual and structural features of the task, had more explanatory power than stable traits like conscientiousness. These results emphasise the shift from trait-based to situational, design-focused frameworks.

Support for the role of task design features comes from Grunschel et al. (2013), who found that both vague or cognitively taxing instructions and the resulting perception of task difficulty were predictive of delay behaviour. They emphasised that well-structured and cognitively manageable task designs directly lower barriers to task initiation.

While internal factors of procrastination have long dominated the field as its predictors, it is limited and provides a predetermined view of student behaviour, ignoring situational factors. While traits like low conscientiousness, perfectionism, and impulsivity do correlate with procrastination (Steel, 2007), they fail to tell us how it can be prevented or reduced, unlike controllable factors like instructional design and structure. This paper asserts for a task-centric theoretical lens, one that shifts the causation away from 'who the student is' to 'what the student is being asked to do'.

This paper assumes that students' procrastination behaviours are shaped less by stable internal traits and more by how academic tasks are designed and presented to them. If clear, detailed instructions, relevance, and interest function as academic motivators, encouraging prompt completion of work (Ackerman & Gross, 2005), then interventions should focus more on rethinking how tasks are presented and less on 'fixing' the student.

Theoretical Perspectives

Task Activation Threshold and Cognitive Load Theory

In the present paper, the term "Task Activation Threshold" is introduced to describe the point at which the students move from intention to initiation, drawing conceptually on

work related to the intention–action gap and Temporal Motivation Theory (Steel, 2007). Vague or confusing instructions raise the task activation threshold by increasing extraneous cognitive load, making initiation more effortful and more likely to be delayed. This effect is consistent with Cognitive Load Theory introduced by Sweller in 1988, which states that unclear, irrelevant instructions increase extraneous load and demand more of working memory resources, which in turn causes more avoidance. On the other hand, clear, manageable tasks that are broken down into smaller parts make the task seem less intimidating and more doable, lowering the threshold.

Chunking and Structured Goal Design

Chunking has also been supported by the goal-setting theory (Locke, 2013). According to this theory, goals must be clear, specific and moderately difficult to push the person to stay engaged but not overwhelmed. Furthermore, forming sub-goals with intermediate deadlines and feedback provides clarity and allows one to proceed with intention rather than navigating vagueness and ambiguity at every step.

Task Entry Cues and Implementation Intentions

Even when goals are clearly structured, students may hesitate at the point of task entry. This focus on initiating action aligns with research on Implementation Intention (Gollwitzer, 1999), which shows that forming “if, then” plans increases the likelihood of translating intentions into behaviour. Doing so reduces ambiguity about where to begin, provides direction and makes the goal implementation an automatic response, reducing hesitation and eliminating the emotional burden attached to decision making. (Gollwitzer, 1999; Steel, 2007).

Emotional Regulation and Perceived Confidence

Another theoretical component is the emotional regulation role of task characteristics. Poorly framed assignments may evoke fear of failure or confusion, resulting in delay. Conversely, assignments that are framed with clarity can subdue resistance before it begins (Wieland et al., 2022). Self-determination theory (Lange et al., 2012) emphasises the presence of the sense of autonomy, competence and relatedness in order to facilitate intrinsic motivation. Emotional states such as anxiety and self-doubt often emerge in response to poorly structured or ambiguous tasks, which increase uncertainty and perceived risk. Therefore, clear, predictable tasks eliminate these emotions and boost engagement. This supports a broader claim that certain task designs can heighten the perceived threat of failure, making procrastination a situational response rather than a stable personal tendency.

Discussion and Implications for Academic Design

Rather than positioning perception or emotion as primary causes of procrastination, this

paper treats them as mechanisms through which task design exerts its influence. The paper proposes a task-centred interaction model, in which individual traits may moderate procrastination tendencies, but task characteristics play a primary role in triggering or reducing delay. For instance, a student low on conscientiousness may procrastinate less if the tasks are structured to have multiple checkpoints and personalised feedback (Steel, 2007). Moreover, the relevance of the task becomes important. If a student does not find a task meaningful or aligned with their academic goals or identity, they might delay it more. If students are shown how to apply those concepts in the real world, the relevance factor increases, allowing for more engagement (Ackerman & Gross, 2005).

Finally, the temporal structuring of the task is crucial. Long, undivided deadlines create an illusion of time abundance. Instead of this, having tasks with intermediate deadlines aiming for the completion of smaller chunks induces urgency and momentum, instilling a sense of control and confidence.

These insights highlight the underlying need to shift from student-blaming to context-sensitive solutions. Future research can focus on designing module structures in ways that lower extraneous cognitive load and nudges prompt initiation of tasks.

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