

High Self-Efficacy and Precrastination: Task Order Choices Based on Deadline Proximity

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Abstract

The concept of ‘precrastination’ as opposed to procrastination has emerged. Precrastination describes scenarios where individuals initiate tasks sooner, even when at a cost or extra effort, to possibly alleviate cognitive load. Recent literature has explored the merits of delaying or promptly addressing aversive tasks. When confronted with aversive tasks, conventional wisdom suggests addressing them immediately. Recent research has underscored the advantages of prompt task completion, even if it incurs additional costs. Nevertheless, the optimal task order remains elusive. Moreover, the influence of situational factors and individual differences on task sequencing is not fully understood. This study specifically examined the interaction between the proximity of deadlines and self-efficacy to clarify their combined effects on task order preferences. Results indicated that individuals with high self-efficacy tend to start with their preferred task when the deadline is distant but conduct aversive tasks first when the deadline is imminent. This paper suggests that people with high self-efficacy strategically sequence tasks, optimizing efficiency based on situational demands.

Keywords: self-efficacy, procrastination, precrastination, task-order

1. Introduction

The changing conditions of modern work emphasize the importance of efficient task processing. While conventional wisdom suggests addressing aversive tasks promptly, this strategy might not be universally effective, especially when conducting multiple tasks. This research focused on the interplay between deadline proximity and self-efficacy and examined their collective influence on prioritizing tasks.

1.1 Diversification of Task Order

Research on task sequencing strategies has evolved beyond simple procrastination, which not only denotes task delay but involves postponing tasks to a point where the delay might induce irrational outcomes (Lay, 1986; Svartdal & Nemtcan, 2022). Previous findings suggest that chronic procrastination can result in maladaptive outcomes, such as delays (Lay & Schouwenburg, 1993). High procrastination tendencies are also associated with low academic performance and low self-efficacy (Beswick et al., 1988; Klassen et al., 2008; Ljubin-Golub et al., 2019), and negative emotions, including anxiety, depression (Lay & Silverman, 1996; Schouwenburg, 1992).

Contrastingly, recent studies have illuminated the concepts of active and passive procrastination. Moreover, these studies have indicated that deliberate task delays might not necessarily lead to irrational outcomes but foster enhanced creativity and divergent thinking (Shin & Grant, 2021). Such active procrastination correlates with self-efficacy, suggesting that confident individuals might employ delays productively (Chun Chu & Choi, 2005; da Silva et al., 2020; Graff, 2019).

Amidst this discourse, the concept of ‘precrastination’ as opposed to procrastination has emerged. Precrastination describes scenarios where individuals initiate tasks sooner, even when at a cost or extra effort, to possibly alleviate cognitive load (Potts, Callahan-Flintoft et al., 2018; Potts, Pastel et al., 2018; Rosenbaum et al., 2014). Moreover, researchers have implicated the desire to reduce the cognitive load caused precrastination (Fournier, Coder et al., 2019; Fournier, Stubblefield et al., 2019; VonderHaar et al., 2019). Precrastination has been theorized to free up cognitive resources for subsequent tasks, enhancing performance and overall comfort (Rosenbaum & Sauerberger, 2019).

1.2 Task Order Based on the Type of Task

Recent literature has explored the merits of delaying or promptly addressing aversive tasks. These findings, however, remain inconclusive. When there are multiple tasks of varying difficulty, some studies advocate starting with simpler tasks to minimize cognitive load and facilitate earlier accomplishments (Fournier, Coder et al., 2019) and that prioritizing tasks with more confidence can reduce cognitive load before undertaking complex tasks (Aguilar-Lleyda & de Gardelle, 2021). Other studies have indicated that commencing with a demanding task first decreases self-efficacy (Weinstein & Roediger, 2010). Moreover, it is more efficient to first work on more straightforward test questions when solving questions within a time limit. These findings imply that starting with an easy task is associated with reducing the cognitive load of the task.

On the other hand, it has also been shown that starting with an easy task decreases performance due to awareness of the later difficult task and that the time spent on a task is shorter when beginning with the difficult task (VonderHaar et al., 2019). Bieleke et al. (2023) examined the relationship between emotions and the condition for starting with easy or complex mathematics test problems. The results indicated that starting with easy problems increased positive and negative affect due to challenging problems to be solved later, suggesting that starting with easy problems is not necessarily advantageous. Also, Habbert and Schroeder (2020) indicated that people believe they will postpone more complex tasks because starting with easy tasks increases their self-efficacy. However, starting with the most difficult task increases their self-efficacy. Therefore, beginning with more challenging tasks might also help minimize negative emotions such as anxiety.

This inconsistency in findings might be because they include a reduction in the cognitive load of the task and a decrease in negative emotions. Only a few studies have simultaneously focused on a task's cognitive and emotional loads. Harris (2012) reported that some participants put off negative and aversive tasks, whereas others start them early. Moreover, the anticipation of fear and pain influences people's decisions about when to start negative or aversive tasks, and people choose to start a task earlier to minimize these anticipations. Rebetez et al. (2015) indicated clusters of participants that first conducted tasks they disliked. Also, the more students disliked a class, the earlier they tended to submit their reports (Adachi & Adachi, 2021). These findings suggest that aversion to a task does not necessarily lead to procrastination, and people even start aversive tasks earlier to minimize negative anticipations.

1.3 Present Study

This study aims to clarify the dynamics of task preference (liking vs. disliking) in relation to cognitive and emotional loads. The study postulates that aversive tasks might be prioritized when deadlines are close to reduce emotional distress. Conversely, when extended deadlines are available, individuals might choose simpler tasks first to lessen the cognitive strain and allocate more focus to subsequent challenging tasks.

In multitasking settings, early task engagement can enhance the person's outlook on task completion and provide accurate time estimations. Furthermore, starting with an easy task reduces cognitive load and facilitates a mentally relaxed and focused approach to later tasks (Fournier, Coder et al., 2019). Conversely, spending more time on a disliked task increases the discrepancy between the estimate and the actual. High self-efficacy, conceptualized as confidence in own capability to perform a task (Bandura, 1977), is postulated to guide people toward feasible tasks. Prior research has reported a negative relationship between procrastination and self-efficacy (Steel, 2007), and low self-efficacy has been identified as a characteristic of procrastinators (Lay & Schouwenburg, 1993; Solomon & Rothblum, 1984). Thus, individuals with high self-efficacy might tend to conduct preferred tasks when ample time is available (Hypothesis 1).

Conversely, under time constraints, starting with a preferred task will increase the awareness of the time spent on a disliked task, causing negative emotions such as anxiety (VonderHaar et al., 2019). Therefore, people might confront aversive tasks first to circumvent negative emotions, including anxiety. In addition, people with high self-efficacy can control their stress and improve their situation (Chun Chu & Choi, 2005). As a result, they are likely to tackle a task they dislike actively. On the other hand, people with low self-efficacy tend to avoid negative situations and tasks (Ferrari & Tice, 2000). Hence, when the deadline is short, people with more self-efficacy may first complete a task they dislike (Hypothesis 2).

2. Method

2.1 Participants

The study recruited participants through Rakuten Insight, an online polling company. From the Rakuten Insight monitor pool, 200 employed adults were randomly selected to participate. They completed a questionnaire package, yielding data from 195 respondents (116 men and 79 women; $Mage = 44.64$ years, $SD = 9.76$; age range:

22-59 years). Analyses were performed only on responses with no missing values. The ethics committee of the author's affiliated institution approved this study.

2.2 Procedure

Participants encountered two scenarios: one with a lengthy time to the deadline and the other with a shorter time to the deadline. Initially, participants visualized a scenario where the deadline was one month away, with two distinct tasks. They were presented with the prompt: "Imagine there's a task you prefer and another you do not. Which would you begin first? Select the option that aligns more with your inclination." The participants indicated their choice. Similarly, participants visualized a situation with a deadline one week away with two tasks and received the instruction: "Imagine one task is preferable while the other is not. Which would you tackle first? Choose the option that aligns more with your inclination." Again, they indicated their choice. The sequence in which these scenarios were presented was counterbalanced among participants.

To ascertain the manipulation's effectiveness, after the initial prompt, participants were asked to gauge their impatience by responding to: "Select the option that matches your current sentiment." They rated their impatience using a 7-point scale, ranging from 1 (not at all impatient) to 7 (very impatient).

Lastly, to assess self-efficacy, participants responded to a modified version of the four items from Ito and Shinto (2003), which was modified from academic to work settings. Examples include, "I believe I will excel in my job in the future" and "I am confident of my ongoing job performance." Responses utilized a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The mean value of these four items was used to gauge self-efficacy. The internal reliability for this scale was $\alpha = .86$.

3. Results

3.1 Manipulation Check

A paired-sample t-test was conducted to determine whether the degree of impatience differed between tasks with longer (one month) and shorter (one week) deadlines. Results indicated that tasks with a one-week deadline ($M = 4.88$, $SD = 1.58$) evoked greater impatience than those with a one-month deadline ($M = 3.86$, $SD = 1.68$; $t(194) = 9.98$, $d = .62$, 95% CI [.41, .82], $p < .01$). This confirmed the effectiveness of the manipulation.

3.2 Hypothesis Testing

For tasks set to a one-month deadline, 102 participants indicated they would prioritize tasks they enjoyed, whereas 93 chose tasks they disliked. With a one-week deadline, 111 participants preferred tasks they enjoyed, while 84 opted for tasks they disliked.

A logistic multiple regression was performed to evaluate the hypotheses, with task choice for more extended deadlines as the dependent variable, self-efficacy as the independent variable, and task choice for shorter deadlines as a covariate. The analysis revealed a significant main effect of self-efficacy. Participants with higher self-efficacy were more inclined to sequence preferred tasks first ($\beta = -.15$, 95% CI [-.29, -.02], $Z = -2.30$, odds ratio = .61, $R^2 = .43$, $p < .05$). Similarly, a logistic multiple regression, with task choice for shorter deadlines as the dependent variable, self-efficacy as the independent variable, and task choice for more extended deadlines as the covariate, yielded contrasting findings. Specifically, individuals with higher self-efficacy were more likely to sequence tasks they disliked first ($\beta = .17$, 95% CI [.03, .31], $Z = 2.49$, odds ratio = 1.72, $R^2 = .44$, $p < .05$).

4. Discussion

This research aimed to understand the influence of high self-efficacy on task selection order when confronted with varying deadline lengths. The efficient task order may differ depending on the length of time until the deadline, since the estimation of time spent for preparation and the way of perceiving the time differ (Trope & Liberman, 2000, 2003). This study clarified the efficient task order from the viewpoint of self-efficacy in each situation in which the length of time until the deadline differs. Participants with high self-efficacy preferred to commence with tasks they enjoyed when the deadline was distant. However, as the deadline neared, they tended to sequence less favorable tasks first, suggesting that those with high self-efficacy sequence tasks strategically in an efficient order to minimize cognitive load or mitigate adverse sentiments linked to the tasks. This result supports the hypothesis.

4.1 Theoretical Contributions

Past findings regarding task nature and their sequence of execution have been inconsistent. This study introduced the variable of time until the deadline to explain these discrepancies and demonstrated that self-efficacy uniquely influenced task sequence decisions depending on the situation. By emphasizing the importance of time until the deadline, this research offers a fresh perspective on previously incongruent findings about task order.

A situation with a long deadline can be considered a situation of high time uncertainty. People act quickly to protect themselves from uncertain situations (Tiew et al., 2020). Therefore, they will try to process tasks that they are sure to be able to accomplish as soon as possible. In a multi-task situation, performing a task quickly allows one to have a clear view of how to complete the entire task and to accurately estimate the time remaining. Thus, people with a high self-efficacy, i.e., those who have a good prospect of completing the task immediately, start with their favorite task first. On the other hand, when the time until the deadline is short, the situation is less uncertain and more predictable than when the time until the deadline is long. The findings by VonderHaar et al. (2019) with the fact that starting with a task that one likes can lead to negative emotions such as anxiety because one is aware of the time spent on a task that one dislikes and Harris (2012) that the task that one dislikes can lead to negative emotions such as anxiety showing the effect of starting with a task that one dislikes are all situations in which a later disliked task can be anticipated. Thus, those who have the prospect of finishing a task earlier are immediately trying to avoid later negative emotions by starting with the task they dislike. A shorter deadline length would suggest that procrastination may have negative consequences.

4.2. Extension of Understanding to Procrastination

The new concept of procrastination (Rosenbaum et al., 2014) has been emphasized in terms of reducing cognitive load, even if it costs requires extra effort. However, by extending the concept not only to cognitive load but also to emotional load, procrastination can be taken a more complex. In general, one might think that one should get on with what one doesn't like. Prior research has demonstrated that this actually increases self-efficacy (Habbert & Schroeder, 2020). In order to understand this phenomenon from the framework of the procrastination, it is necessary to view it not only as a way to remove cognitive load, but also as a way to minimize emotional load.

In addition, the present study focused on task nature of like or dis-like extending the findings of Habbert and Schroeder (2020), which focused on task nature of easy or difficult. Thus, this study suggests that when considering the task order of how to tackle a task efficiently, in addition to the length of the deadline, the difficulty, preference of the nature, and what kind of load of the task should be considered.

4.3 Limitation and Future Research

Individuals are often confronted with diverse tasks, ranging from professional assignments to homework and reports, which they are expected to handle efficiently. Given the rising interest in work methodologies and the understanding that extended work hours can deteriorate mental health, the urgency of efficient task management is evident. Also, the competence is one of the basic human needs (Deci & Ryan, 2000), and increasing self-efficacy is an essential element in maintaining mental health. Therefore, it is necessary to accumulate research related to task order in order to process tasks efficiently and increase self-efficacy. Yet, limited research exists on the sequence in which individuals initiate tasks. This study contributes valuable insights into efficient task completion when managing multiple responsibilities. Future research should further validate the robustness of these findings.

Specifically, it should be considered to clarify the task order uncertainty for each situation. In addition, task difficulty and preference are considered to be independent properties (Habbert & Schroeder, 2020) and their combination should also be considered. In addition to task difficulty and preference, how a task is valued is another factor that motivates behavior (Wigfield & Eccles, 2000). In this study, participants were asked to choose the order in which they would start working on tasks according to their preferences in each situation with different deadlines, but deadlines themselves can also be considered a property of tasks. For example, whether people start working on tasks with imminent deadlines regardless of the nature of the task (mere urgency effect: Zhu et al., 2018) or whether they start working on their favorite tasks that still have time until the deadline, even though the deadline is imminent. Therefore, regardless of the nature of the task (easy or difficult, like or dislike, etc.), it is necessary to consider the length of time whether the deadline is imminent and to examine the effects of these factors.

While this study focused on employed adults, it's essential to explore procrastination habits, both traditional and other variants, particularly among university students (Vangsnæs et al., 2022; Vangsnæs & Young, 2020). For example, some students consistently produce reports at a steady pace, others procrastinate until just before the deadline (procrastination), and still others complete and submit their reports at an early stage (procrastination). Future investigations should assess the task initiation order of students, taking into account their self-efficacy, impending deadlines, and task nature. It is also important for middle-school and high-school students as well. With multiple homework assignments over the long break, some students will complete them as soon as possible, while others will start just before they are due. In addition, whether students start with the homework they dislike or the homework they like should include the influence of socio-environmental factors from their childhood, along with their lifestyle habits. Doing so can offer new strategies to address and intervene against irrational procrastination.

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Declaration of Interest Statement

The corresponding author states that there is no conflict of interest.

Data Availability Statement

The data that support the findings of this study are available on request.

References

- Adachi, M., & Adachi, K. (2021). Correlation between class evaluation of university students and procrastination. *Journal of Educational and Developmental Psychology, 11*, 1-70. <http://doi.org/10.5539/jedp.v11n2p70>
- Aguilar-Lleyda, D., & de Gardelle, V. (2021). Confidence guides priority between forthcoming tasks. *Scientific Reports, 11*, 1-11. <https://doi.org/10.1038/s41598-021-97884-2>
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*, 191-215. <https://doi.org/10.1037/0033-295X.84.2.191>
- Beswick, G., Rothblum, E. D., & Mann, L. (1988). Psychological antecedents of student procrastination. *Australian Psychologist, 23*, 207-217. <https://doi.org/10.1080/00050068808255605>
- Bieleke, M., Goetz, T., Krannich, M., Roos, A. L., & Yanagida, T. (2023). Starting tests with easy versus difficult tasks: Effects on appraisals and emotions. *The Journal of Experimental Education, 91*, 317-335. <https://doi.org/10.1080/00220973.2021.1947764>
- Chun Chu, A. H., & Choi, J. N. (2005). Rethinking procrastination: Positive effects of "active" procrastination behavior on attitudes and performance. *The Journal of Social Psychology, 145*, 245-264. <https://doi.org/10.3200/SOCP.145.3.245-264>
- da Silva, S. P., Smith, A., & Facciolo, M. (2020). Relations between self-efficacy and procrastination types in college students. *Modern Psychological Studies, 25*, 1-24.
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*, 227-268. https://doi.org/10.1207/S15327965PLI1104_01
- Ferrari, J. R., & Tice, D. M. (2000). Procrastination as a self-handicap for men and women: A task-avoidance strategy in a laboratory setting. *Journal of Research in Personality, 34*, 73-83. <https://doi.org/10.1006/jrpe.1999.2261>
- Fournier, L. R., Coder, E., Kogan, C., Raghunath, N., Taddese, E., & Rosenbaum, D. A. (2019). Which task will we choose first? Procrastination and cognitive load in task ordering. *Attention, Perception, & Psychophysics, 81*, 489-503. <https://doi.org/10.3758/s13414-018-1633-5>
- Fournier, L. R., Stubblefield, A. M., Dyre, B. P., & Rosenbaum, D. A. (2019). Starting or finishing sooner? Sequencing preferences in object transfer tasks. *Psychological Research, 83*, 1674-1684. <https://doi.org/10.1007/s00426-018-1022-7>
- Graff, M. (2019). Self-efficacy beliefs and academic procrastination. *North American Journal of Psychology, 21*, 81-99.
- Habbert, R., & Schroeder, J. (2020). To build efficacy, eat the frog first: People misunderstand how the difficulty-ordering of tasks influences efficacy. *Journal of Experimental Social Psychology, 91*, 1-14. <https://doi.org/10.1016/j.jesp.2020.104032>
- Harris, C. R. (2012). Feelings of dread and intertemporal choice. *Journal of Behavioral Decision Making, 25*, 13-28. <https://doi.org/10.1002/bdm.709>
- Ito, T., & Shinto, T. (2003). An examination of the causal model for the relationships among self-efficacy, anxiety, self-regulated learning strategies, and persistence in learning: Focused on cognitive and motivational aspects of self-regulated learning strategies. *Japan Society for Educational Technology, 27*, 377-385. https://doi.org/10.15077/jmet.27.4_377
- Klassen, R. M., Krawchuk, L. L., & Rajani, S. (2008). Academic procrastination of undergraduates: Low self-efficacy to self-regulate predicts higher levels of procrastination. *Contemporary Educational Psychology, 33*, 915-931. <https://doi.org/10.1016/j.cedpsych.2007.07.001>

- Lay, C. H. (1986). At last, my research article on procrastination. *Journal of Research in Personality, 20*, 474-495. [https://doi.org/10.1016/0092-6566\(86\)90127-3](https://doi.org/10.1016/0092-6566(86)90127-3)
- Lay, C. H., & Schouwenburg, H. C. (1993). Trait procrastination, time management. *Journal of Social Behavior and Personality, 8*, 647-662.
- Lay, C., & Silverman, S. (1996). Trait procrastination, anxiety, and dilatory behavior. *Personality and Individual Differences, 21*, 61-67.
- Ljubin-Golub, T., Petričević, E., & Rovani, D. (2019). The role of personality in motivational regulation and academic procrastination. *Educational Psychology, 39*, 550-568. <https://doi.org/10.1080/01443410.2018.1537479>
- Potts, C. A., Callahan-Flintoft, C., & Rosenbaum, D. A. (2018). How do reaching and walking costs affect movement path selection? *Experimental Brain Research, 236*, 2727-2737. <https://doi.org/10.1007/s00221-018-5327-y>
- Potts, C. A., Pastel, S., & Rosenbaum, D. A. (2018). How are cognitive and physical difficulty compared? *Attention, Perception, & Psychophysics, 80*, 500-511. <https://doi.org/10.3758/s13414-017-1434-2>
- Rebetez, M. M. L., Rochat, L., & Van der Linden, M. (2015). Cognitive, emotional, and motivational factors related to procrastination: A cluster analytic approach. *Personality and Individual Differences, 76*, 1-6. <https://doi.org/10.1016/j.paid.2014.11.044>
- Rosenbaum, D. A., Gong, L., & Potts, C. A. (2014). Pre-crastination: Hastening subgoal completion at the expense of extra physical effort. *Psychological Science, 25*, 1487-1496. <https://doi.org/10.1177/0956797614532657>
- Rosenbaum, D. A., & Sauerberger, K. S. (2019). End-state comfort meets pre-crastination. *Psychological Research, 83*, 205-215. <https://doi.org/10.1007/s00426-018-01142-6>
- Schouwenburg, H. C. (1992). Procrastinators and fear of failure: An exploration of reasons for procrastination. *European Journal of Personality, 6*, 225-236. <https://doi.org/10.1002/per.2410060305>
- Shin, J., & Grant, A. M. (2021). When putting work off pays off: The curvilinear relationship between procrastination and creativity. *Academy of Management Journal, 64*, 772-798. <https://doi.org/10.5465/amj.2018.1471>
- Solomon, L. J., & Rothblum, E. D. (1984). Academic procrastination: Frequency and cognitive-behavioral correlates. *Journal of Counseling Psychology, 31*, 503-509. <https://doi.org/10.1037/0022-0167.31.4.503>
- Steel, P. (2007). The nature of procrastination: A meta-analytic and theoretical review of quintessential self-regulatory failure. *Psychological Bulletin, 133*, 65-94. <https://doi.org/10.1037/0033-2909.133.1.65>
- Svartdal, F., & Nemtcan, E. (2022). Past negative consequences of unnecessary delay as a marker of procrastination. *Frontiers in Psychology, 13*, 1-18. <https://doi.org/10.3389/fpsyg.2022.787337>
- Tiew, E. H., Seethapathi, N., & Srinivasan, M. (2020). Pre-crastination: Time uncertainty increases walking effort. *bioRxiv*, 1-7. <https://doi.org/10.1101/2020.07.17.208140>
- Trope, Y., & Liberman, N. (2000). Temporal construal and time-dependent changes in preference. *Journal of Personality and Social Psychology, 79*, 876-889. <https://doi.org/10.1037/0022-3514.79.6.876>
- Trope, Y., & Liberman, N. (2003). Temporal construal. *Psychological Review, 110*, 403-421. <https://doi.org/10.1037/0033-295X.110.3.403>
- Vangsness, L., Voss, N. M., Maddox, N., Devereaux, V., & Martin, E. (2022). Self-report measures of procrastination exhibit inconsistent concurrent validity, predictive validity, and psychometric properties. *Frontiers in Psychology, 13*, 1-15. <https://doi.org/10.3389/fpsyg.2022.784471>
- Vangsness, L., & Young, M. E. (2020). Turtle, task ninja, or time waster? Who cares? Traditional task-completion strategies are overrated. *Psychological Science, 31*, 306-315. <https://doi.org/10.1177/0956797619901267>
- VonderHaar, R. L., McBride, D. M., & Rosenbaum, D. A. (2019). Task order choices in cognitive and perceptual-motor tasks: The cognitive-load-reduction (CLEAR) hypothesis. *Attention, Perception, & Psychophysics, 81*, 2517-2525. <https://doi.org/10.3758/s13414-019-01754-z>
- Weinstein, Y., & Roediger, H. L. (2010). Retrospective bias in test performance: Providing easy items at the beginning of a test makes students believe they did better on it. *Memory & Cognition, 38*, 366-376. <https://doi.org/10.3758/MC.38.3.366>

- Wigfield, A., & Eccles, J. S. (2000). Expectancy-value theory of achievement motivation. *Contemporary Educational Psychology, 25*, 68-81. <https://doi.org/10.1006/ceps.1999.1015>
- Zhu, M., Yang, Y., & Hsee, C. K. (2018). The mere urgency effect. *Journal of Consumer Research, 45*, 673-690. <https://doi.org/10.1093/jcr/ucy008>

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