

Relationship Between Intrinsic Motivation and Multitasking among Youth

Hirawat Karthika¹, Chethana R. Acharya²

¹Department of Psychology, Jain (Deemed-to-be University), Bengaluru, India

²Assistant Professor, Department of Psychology, Jain (Deemed-to-be University), Bengaluru, India

Abstract: *Intrinsic motivation influences how individuals engage with, persist in, and regulate their activities, while multitasking preference reflects individual differences in the tendency to manage and shift between multiple tasks. The present study examined the relationship between intrinsic motivation and multitasking preference among youth aged 18–25 years. A quantitative, descriptive-correlational design was employed with 108 participants selected through convenience sampling. Intrinsic motivation was assessed using selected dimensions of the Intrinsic Motivation Inventory (IMI)- Interest/Enjoyment, Perceived Competence, and Effort/Importance—while multitasking preference was assessed using the 14-item Multitasking Preference Inventory (MPI). Pearson product-moment correlations and an independent-samples t-test with Welch's correction were used for analysis. Intrinsic motivation showed a moderate, positive, and statistically significant relationship with multitasking preference, $r(106) = .533, p < .001$. All three dimensions were significantly related to multitasking preference: Perceived Competence showed the strongest association ($r = .580, p < .001$), followed by Interest/ Enjoyment ($r = .460, p < .001$) and Effort/Importance ($r = .256, p = .007$). Participants with higher intrinsic motivation also reported significantly greater multitasking preference than those with lower intrinsic motivation, $t(86.49) = 5.594, p < .001$. The findings indicate that intrinsic motivation is positively associated with individual differences in multitasking preference among youth. However, because the study assessed preference through self-report, the findings do not establish causal effects or demonstrate the effectiveness of sequential multitasking.*

Keywords: intrinsic motivation, multitasking preference, youth, task switching, perceived competence, sequential task management

1. Introduction

Young adults between 18 and 25 years commonly manage academic, occupational, personal, and social responsibilities within increasingly demanding and digitally connected environments. Handling several responsibilities may involve moving attention between activities, deciding which task to address first, and organizing tasks across available time. Although multitasking is often described as performing several activities simultaneously, individual differences in multitasking preference also include a willingness to shift between tasks and manage multiple demands over time. Understanding these differences is therefore relevant to psychological research on motivation, attention, and self-regulation.

Intrinsic motivation refers to engaging in an activity because it is interesting, enjoyable, satisfying, or personally meaningful rather than because of external rewards or pressure. Self-Determination Theory proposes that autonomous motivation is supported by experiences of autonomy, competence, and relatedness (Deci & Ryan, 2000). Intrinsically motivated individuals tend to show greater engagement, persistence, and willingness to invest effort in activities. In the present study, intrinsic motivation was represented through Interest/Enjoyment, Perceived Competence, and Effort/Importance.

Multitasking preference represents a relatively stable tendency to prefer shifting among tasks rather than maintaining attention on a single task until completion (Poposki & Oswald, 2010). Task switching requires the allocation and reallocation of attention and is influenced by executive control and cognitive flexibility (Monsell, 2003). From a cognitive-load perspective, attempting to process

competing demands can place substantial demands on limited working-memory resources (Sweller, 1988). Thus, a preference for multitasking should not be interpreted as evidence that multitasking necessarily improves performance.

Previous research has frequently examined media multitasking, task switching, and academic outcomes. Reviews indicate that frequent media multitasking may interfere with attention and learning, although effects vary by context and type of multitasking (May & Elder, 2018). Experimental work has also shown that motivation toward one task can influence attention to other tasks performed concurrently (Shin & Grant, 2019). More recent work has continued to connect motivation and multitasking in students, while also emphasizing that multitasking preference and actual multitasking performance are distinct constructs (Bachmann et al., 2024; Li et al., 2024).

Despite this literature, comparatively limited attention has been given to the specific association between intrinsic motivation and individual differences in multitasking preference among youth aged 18–25, particularly in the Indian context. The present study therefore examined whether intrinsic motivation is related to multitasking preference and whether the dimensions of intrinsic motivation show differential associations with multitasking preference.

2. Research Methodology

1) **Design and Participants:** The study employed a quantitative, non-experimental descriptive-correlational design. The final sample consisted of 108 youth aged 18–25 years. Participants were recruited through

convenience sampling. Individuals outside the specified age range and incomplete responses were excluded during data preparation.

- 2) **Measures:** Intrinsic motivation was assessed using selected dimensions of the Intrinsic Motivation Inventory (IMI): Interest/Enjoyment, Perceived Competence, and Effort/Importance. Multitasking preference was assessed using the 14-item Multitasking Preference Inventory (MPI) developed by Poposki and Oswald (2010). Higher MPI scores indicate a greater preference for multitasking. The selected measures have been used in research involving Indian participants.
- 3) **Procedure and Ethics:** Data were collected through an online questionnaire created in Google Forms. The questionnaire included informed consent and brief instructions. Participation was voluntary, and participants were informed about confidentiality and the academic purpose of the study. Responses were screened for completeness before analysis.
- 4) **Data Analysis:** Descriptive statistics were used to summarize the variables. Pearson product-moment correlation was used to examine associations between intrinsic motivation, its dimensions, and multitasking preference. An independent-samples t-test with Welch's correction was used to compare multitasking preference between high- and low-intrinsic-motivation groups.

3. Results

Participants reported a mean intrinsic motivation score of 5.031 (SD = 1.032) on the 7-point response scale and a mean multitasking preference score of 3.563 (SD = 0.910) on the 5-point scale. Pearson correlation analysis showed a moderate positive and statistically significant relationship between intrinsic motivation and multitasking preference, $r(106) = .533$, $p < .001$. Thus, higher intrinsic motivation was associated with greater preference for multitasking.

The three dimensions of intrinsic motivation were also positively associated with multitasking preference. Perceived Competence demonstrated the strongest relationship, $r(106) = .580$, $p < .001$. Interest/Enjoyment showed a moderate positive relationship, $r(106) = .460$, $p < .001$, while Effort/Importance showed a weaker but statistically significant positive relationship, $r(106) = .256$, $p = .007$.

To further examine group differences, participants were divided into high- and low-intrinsic-motivation groups. The high-motivation group ($n = 51$) reported greater multitasking preference ($M = 4.028$, $SD = 0.946$) than the low-motivation group ($n = 57$; $M = 3.148$, $SD = 0.641$). Welch's independent-samples t-test indicated that this difference was statistically significant, $t(86.49) = 5.594$, $p < .001$.

4. Discussion

The present study found a significant positive association between intrinsic motivation and multitasking preference among youth. Participants with higher intrinsic motivation tended to report a stronger preference for moving between and managing multiple tasks. This finding suggests that motivational characteristics may be relevant to individual

differences in how young adults approach multiple responsibilities.

Among the three dimensions, Perceived Competence showed the strongest association with multitasking preference. One possible interpretation is that individuals who feel capable of handling activities may be more willing to take on or shift between several demands. Interest/Enjoyment was also moderately associated with multitasking preference, suggesting that individuals who experience greater enjoyment in their activities may be more inclined to remain engaged across varied tasks. Effort/Importance showed a smaller, although significant, relationship, indicating that willingness to invest effort may have a more modest association with multitasking preference.

The findings are consistent with research emphasizing the role of motivation in attention allocation and task engagement. Shin and Grant (2019) demonstrated that intrinsic motivation can influence the allocation of attention in multitasking contexts. Bachmann et al. (2024) similarly highlighted links between motivation and multitasking during studying, although their findings also indicate that motivational quality and situational factors matter. Research on multitasking has also cautioned that a preference for multitasking should not be equated with superior performance; frequent task switching can impose attentional and cognitive costs (May & Elder, 2018; Li et al., 2024).

The present study conceptualized multitasking broadly as a preference involving multiple activities and shifts of attention. Sequential task management and task switching are relevant to this conceptualization because individuals may move from one task to another rather than perform all tasks simultaneously. However, the MPI measures preference rather than objective multitasking ability. Therefore, the positive association found in this study should not be interpreted as evidence that intrinsically motivated youth perform better when multitasking, nor that sequential multitasking is more effective than single-tasking or simultaneous multitasking.

The results may have practical relevance in educational and counselling contexts. Supporting intrinsic motivation and perceived competence may help young people approach demanding responsibilities with greater engagement and confidence. At the same time, interventions should distinguish between a preference for multitasking and effective task performance, particularly when tasks require sustained attention.

5. Limitations and Future Directions

Several limitations should be considered. First, the correlational design does not permit conclusions about causality. Second, both constructs were measured through self-report, making the results susceptible to response and self-perception biases. Third, convenience sampling and the restricted age range limit generalizability. Finally, the study measured multitasking preference rather than observed multitasking performance; sequential task management and task-switching effectiveness were not independently tested.

Future research could use larger and more diverse samples and compare simultaneous multitasking, sequential multitasking, task switching, and single-tasking using objective measures such as accuracy, completion time, and cognitive workload. Experimental and longitudinal designs could also clarify whether motivational characteristics contribute to differences in actual multitasking performance.

6. Conclusion

The study demonstrates a significant positive relationship between intrinsic motivation and multitasking preference among youth aged 18–25 years. Higher overall intrinsic motivation was associated with greater multitasking preference, and Interest/Enjoyment, Perceived Competence, and Effort/Importance each showed significant positive associations. Perceived Competence demonstrated the strongest relationship among the three dimensions. The findings contribute to understanding individual differences in multitasking preference from a motivational perspective. However, the results indicate association rather than causation and do not establish that a greater preference for multitasking results in better task performance. Further research using objective measures of task switching and sequential task management is needed.

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