

Appendix A

Project Name: Task Interruptions in STEM Online Courses: Understanding the Mechanisms of Their Impact on Learning Outcomes and User Experience. Interview Purpose: To explore the pathways and mechanisms of task interruptions for STEM learners in online environments.

1. Please describe the learning process of a STEM online course you recently participated in.
2. What specific operations or tasks did you typically need to complete during these learning activities?
3. What situations usually cause your concentration to be interrupted during your study?
4. Recalling a specific experience, what was your initial reaction when the task interruption occurred?
5. When you decided to return to the previous learning task, what was your typical first step?
6. Please describe in detail the process from the end of the interruption to full recovery of your previous learning progress.
7. What changes occurred in your thinking and psychological state during the re-entry process?
8. Besides mental adjustments, what actions were required at the operational level (e.g., software, equipment, or materials)?
9. How would you describe the overall feeling brought by these preparation and resumption tasks?
10. How do you believe these frequent interruptions influenced your final learning experience for this course?
11. What fixed habits or coping strategies have you developed to deal with these potential interruptions?
12. From your perspective, how could the online platform be improved to better support your recovery process after interruptions?