What Makes Lessons Interesting? An Investigation of Situational and Individual Factors in Three School Subjects

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Theoretical Background

Interest experience is a psychological state characterized by positive emotion and concentration. It is associated positively with cognitive functioning and learning, and is thought to be influenced by both situational factors and individual characteristics (Krapp, 2002). The aim of the present study is to investigate both sources of influence simultaneously within a diary design.

Situational Factors Relating to Instructional Support
According to self-determination theory, the level of classroom autonomy support is a key factor in explaining students' interest (Ryan & Deci, 2002). Three aspects of autonomy-related instructional behaviors are differentiated.
- *Autonomy-supportive climate*: Teachers' understanding of students' feelings and thoughts, and provision of choices that support personal learning.
- *Controlling behavior*: Teachers' disruptions of students' natural rhythm, use of directive comments.
- *Cognitive autonomy support*: Teachers' attempts to foster a sense autonomy during cognitive activities; for example, by clarify the purpose of tasks and encouraging different solutions and discussion among students (Stefanou et al., 2004).

Individual Motivational Resources
Individual interest is a relatively stable personal preference to attend to certain contents; it is characterized by enduring positive feelings and values. It serves as a motivational resource helping students to cope with unfavorable learning conditions.

Research Goals

1. To describe intraindividual variability of interest experience in day-to-day classroom learning.

2. To examine the roles of three individual factors: gender, prior school grades, and individual interest.

3. To examine the roles of three situational factors during instruction: autonomy-supportive climate, controlling behavior, and cognitive autonomy support.

Method

Sample:
Participants were 261 (57% girls) 7th-grade students in Germany. Their mean age was *M* = 12.3 years.

Procedure and Measures:

Pretest ➡ 3-week lesson-specific measurement phase ➡ Posttest

The *pretest* assessed the individual factors of gender, prior school grades, and individual interest. Individual interest was assessed by 7 items ("For me, *subject x* is personally important")

Lesson-specific measures (LSMs) were administered at the end of each mathematics, German, and second foreign language lesson over 3 weeks to assess interest experience and perceived instruction.

Interest experience. 5 items ("It was interesting to me") (α = .90)

Autonomy-supportive climate. 6 items ("I felt that my teacher provided me choice and options") (α = .92)

Controlling behavior. 4 items ("Our teacher expected split-second answers") (α = .66)

Cognitive autonomy support. 4 items ("We worked through exercises that helped us understand the topic") (α = .76)

A total of 6468 completed LSMs were obtained. For each student, the LSM was administered in an average of 8.4 mathematics lessons (range: 5–11), 8.0 German lessons (range: 2–10), and 8.4 second foreign language lessons (range: 6–11).

Results

1. Describing intraindividual variability
Hierarchical linear modeling revealed a substantial proportion of variance at the within-student level, indicating that students' interest experience varied from lesson to lesson.
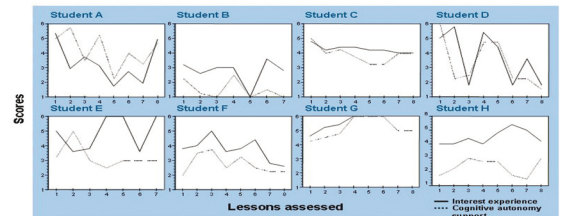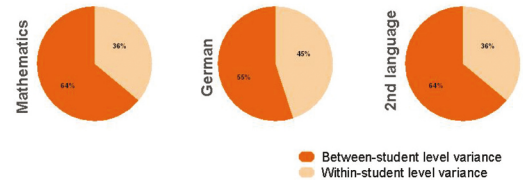
2. Examining the pattern of variation
Interest experience during the lesson can be predicted by the perceived autonomy-related instructional support. The three situational factors explained 19%, 17%, and 23% of the within-student variance in mathematics, German, and the second foreign language, respectively.
At the same time, average interest experience was significantly predicted by individual interest, which explained 27%, 19%, and 27%, respectively, of the between-student variance in the three subjects.
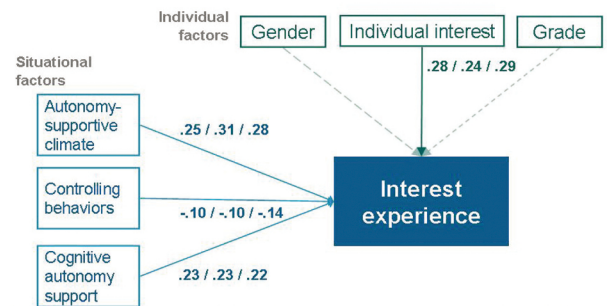
Note. The figure presents unstandardized regression coefficients for mathematics, German, and the second foreign language, respectively. Within-student level predictors were group-mean centered, and the group-means were controlled at between-student level. *p* < .001

Conclusions

Students show substantial variability in their interest experience in real-life day-to-day classroom learning.

Although students bring their own motivational resources to classroom, teachers' instructional support can impact their interest experience above and beyond individual interest. Autonomy-supportive climate, controlling behaviors, and cognitive autonomy support showed distinct associations with interest experience across the three school subjects examined.

The present research demonstrates that the effects of both stable individual factors and situational instructional support can be investigated simultaneously within a short-term intraindividual design using multilevel analysis.

Key Reference

Tsai, Y. -M., Kunter, M., Lüdtke, O., Trautwein, U., & Ryan, M. R. (in press). What makes lessons interesting? The roles of situational and individual factors in three school subjects. *Journal of Educational Psychology*.