

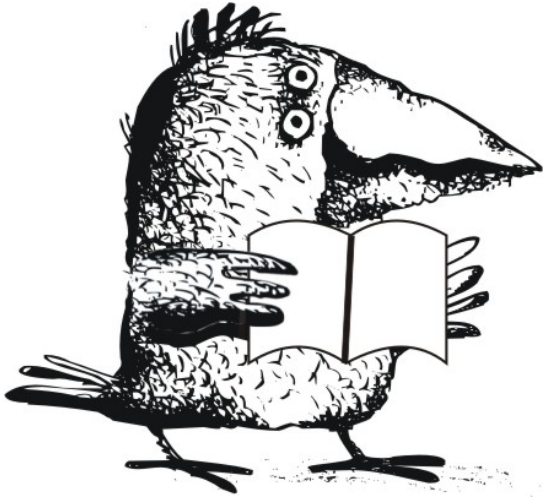


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Interest and Interestingness: The new Perspective on Students and Content

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Interest and Learning



- **Interest** is a result of interaction between an individual and his/her environment (Dewey, 1913).
- Learning is affected not only by personal interest but also by the **interestingness** of tasks and objects (Thorndike, 1935).
- *Interest is a critical **cognitive** and affective **motivational** variable that **guides attention**, **facilitates learning** in different content areas and for learners of all ages, and develops through experience* (Renninger & Hidi, 2011).
- Two types of Interest:
 - **Individual** Interest (learning performance is influenced by personal preferences),
 - **Situational** Interest (learning performance is influenced by interestingness of stimulus materials).

Two Focuses of the Study

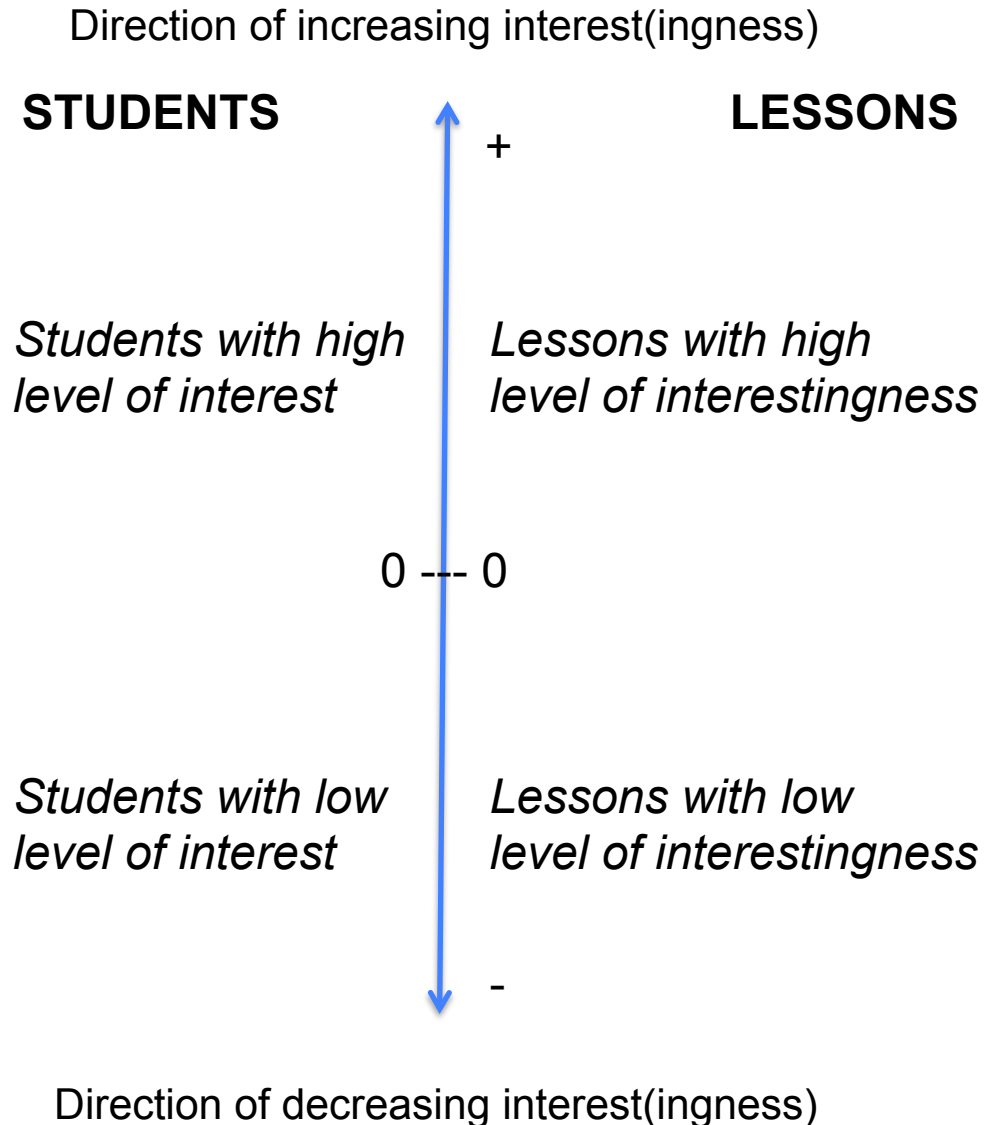
- ① **Measure** the student's interest and the interestingness of the content.
- ② Make an attempt to **understand the role** of interest in the online learning process.

Data Collecting and Processing

- Two on-demand courses in two languages, English and Russian.
- In-video questionnaires:
 - Please rate the level of your interest during the lesson?
 - Very high, ..., Very Low
 - How difficult is this lesson for you?
 - Very difficulty, ..., Very easy
- Psychometric techniques: Item Response Theory, Partial Credit Model.

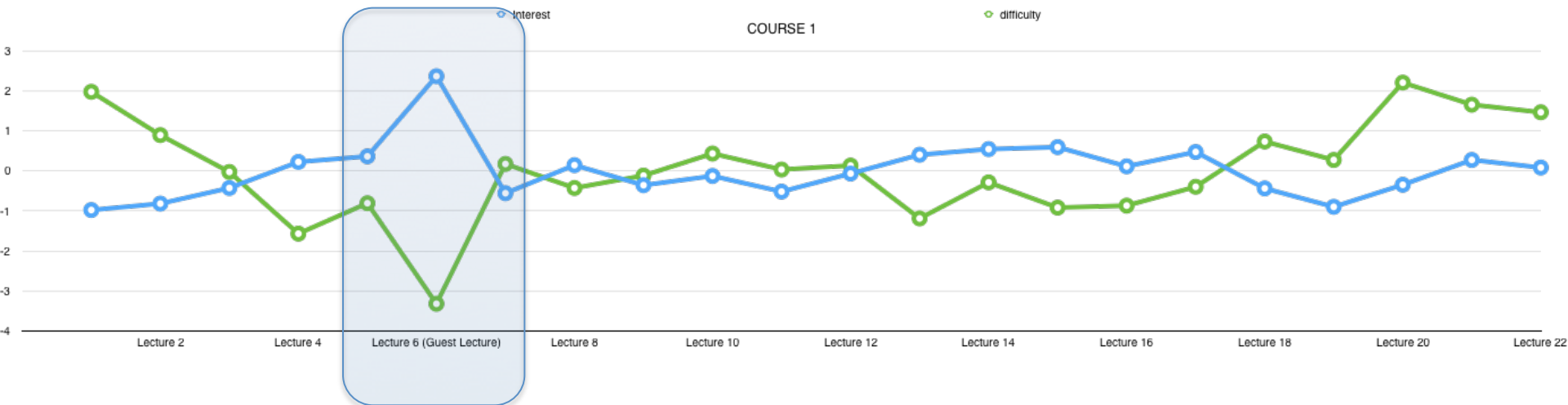
Why Item Response Theory?

- Item response theory (IRT), or latent trait theory, is a psychometric paradigm for the design, analysis, and scoring of tests, questionnaires, and similar instruments measuring abilities, attitudes, or other variables.
- IRT understands the latent variables (the interest) in terms of person (students) and object (lessons) parameters.



Lessons Learned (1)

- The interest (*blue curve*) is changing during the course.
- We can find artifacts that increase and decrease the interest.



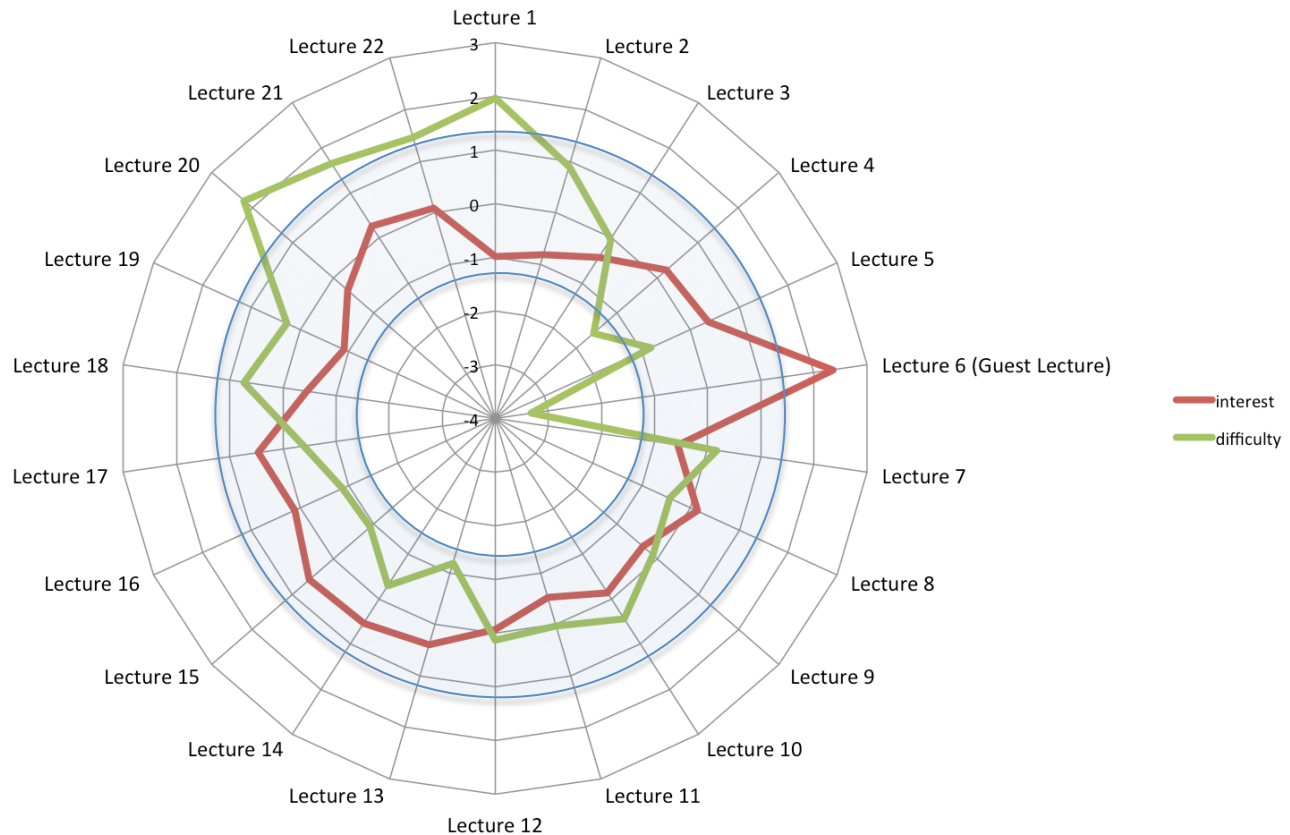
Lessons Learned (2)

- We are getting closer and closer to understanding the student's experience.
- *"In the start of the course you may feel asleep, but later it is fine..."*, (from a student's feedback).



Lessons Learned (3)

- We can balance the interest (*red curve*) and the difficulty (*green curve*) parameters of the course.



Challenges and Limitations

- The direct question about the interest with written options may affect the measures because can not fully catch the state in the present moment.
- Common IRT models have the lack of descriptive power. In order to improve the measures in the future, we will use Explanatory Item Response Models (De Boeck & Wilson, 2004) which can help to obtain more delicate estimates.



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Thank you for your attention!

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