

NATIONAL RESEARCH  
UNIVERSITY

# Measuring the impact of video lectures on learner's productivity

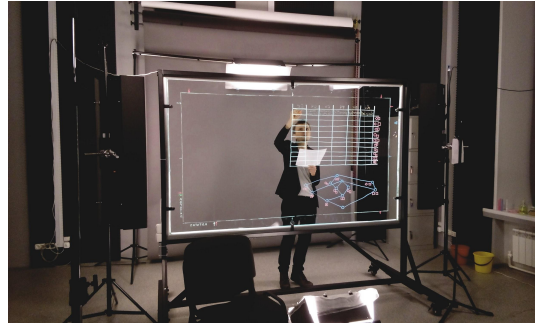
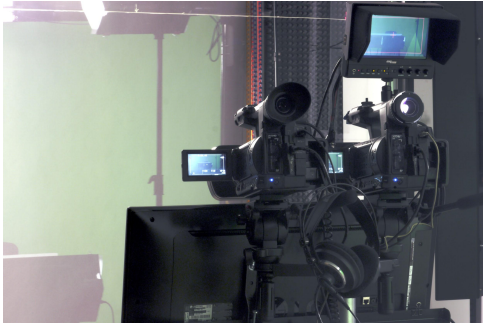
Dmitry Abbakumov,  
Higher School of Economics

# Problem

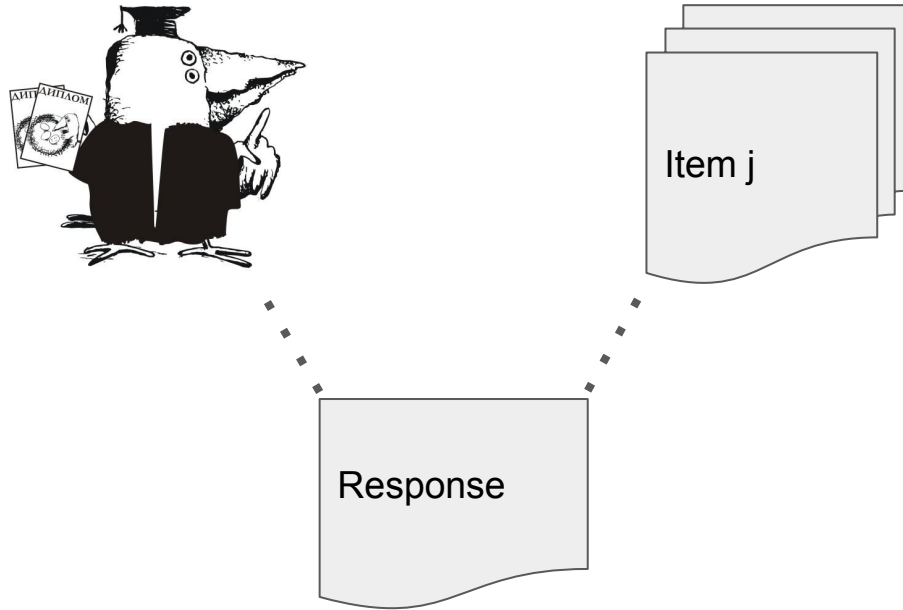
Video lecture is the core tool in an online course. Universities invest considerable money to the video production.

Video lecture should support learning objectives and prepare learners for assessments.

The challenge is how to measure achieving this aim.

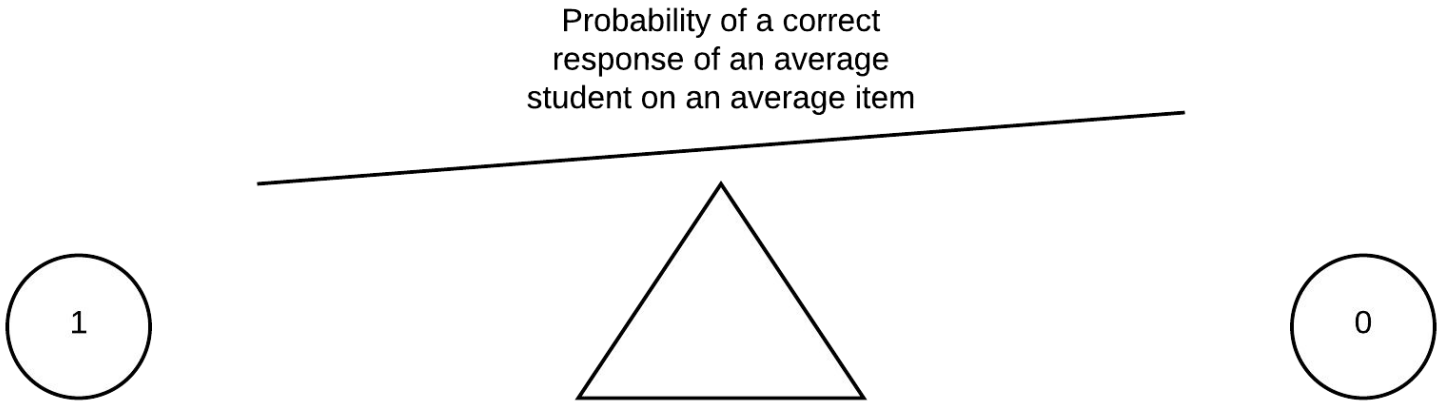


# Psychometric Solution

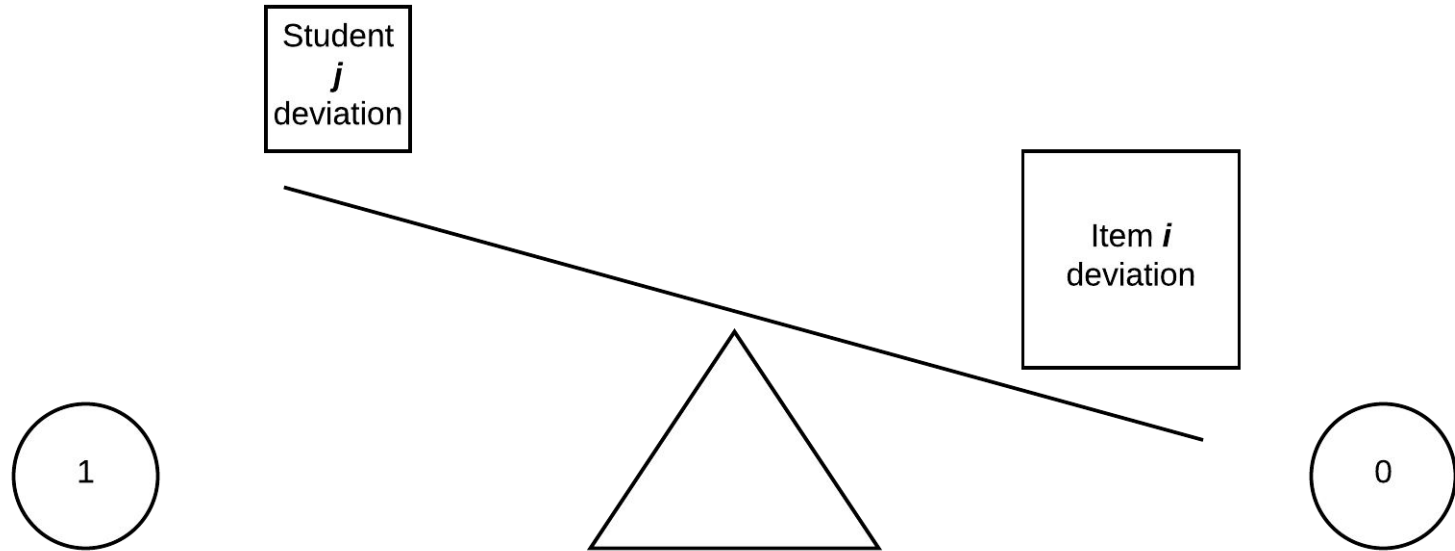


*Cross-Classification Item  
Response Model*

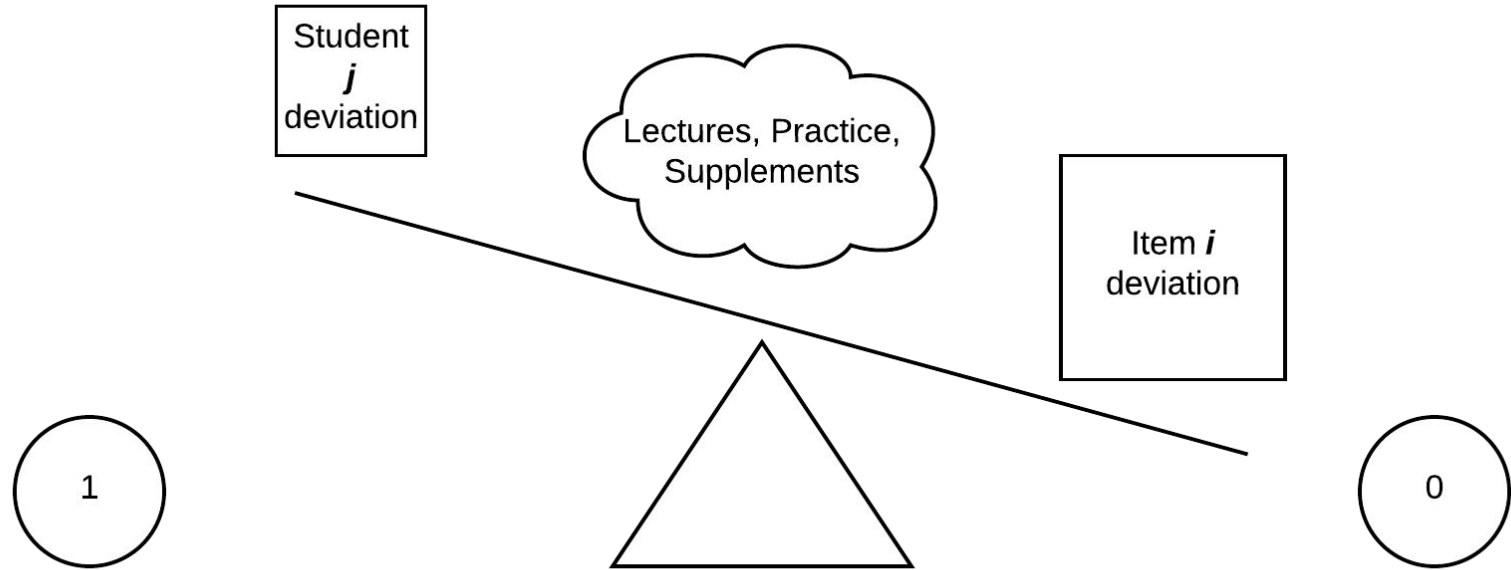
# Psychometric Solution



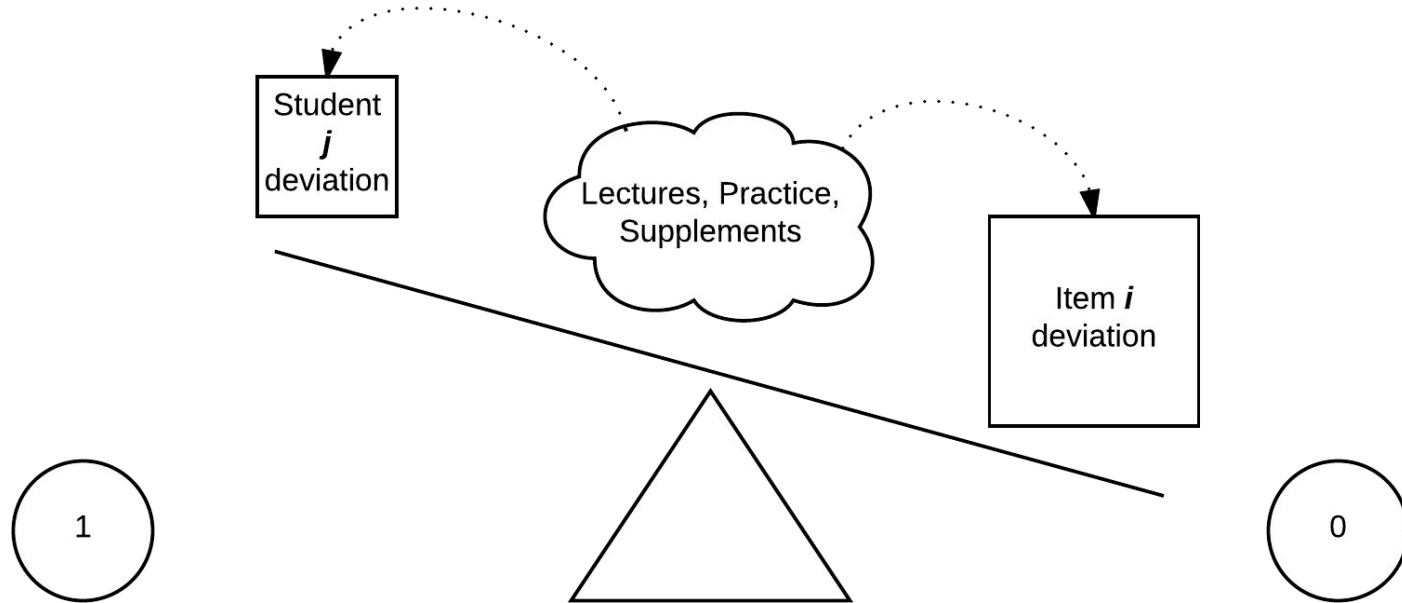
# Psychometric Solution



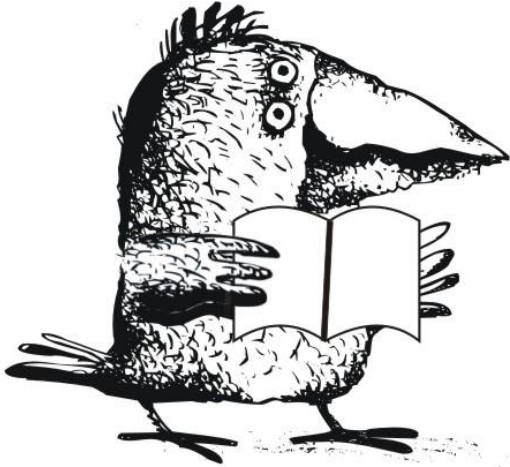
# Psychometric Solution



# Psychometric Solution



# Results



Different video lectures have different impact on the student's productivity.

The impact is positive.



# Results

Productivity with one group of items has higher effect from video lectures, while productivity with another group has higher effect from practice tasks.



# Results



A few items have the conflicting effects from video lectures and practice tasks.

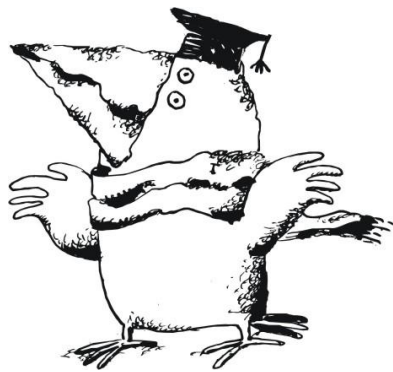
A few items have the negative effects.

# Further Steps

Extended study on all courses of HSE on Coursera.

Meta-analysis to generalize the effects.





Thank you!

[dabbakumov@hse.ru](mailto:dabbakumov@hse.ru)