



НАЦИОНАЛЬНЫЙ ИССЛЕДОВАТЕЛЬСКИЙ
УНИВЕРСИТЕТ

Participation in massive open online course (MOOC): effect of motivation and engagement of learners on achievement

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Challenges

1. A high dropout rate among registered learners
2. Massive participation which results in low involvement of teachers and their assistants in communication with learners
3. Low representation of unwealthy, uneducated learners in the body of MOOC student
4. Issues related to data processing and data analysis for creating predicted models



1. Type of data researcher uses for creating his models

Trace data on all student activity

} General population

Data from discussion forums

Survey data

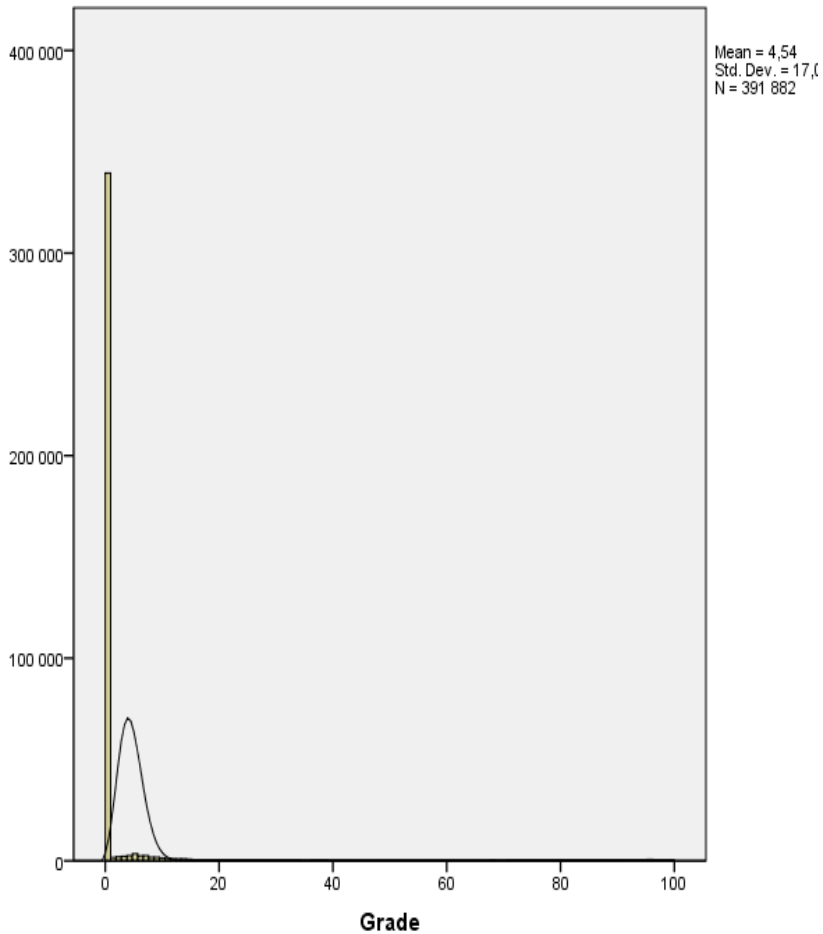
} Sample

2. Distribution of the quantitative dependent variable

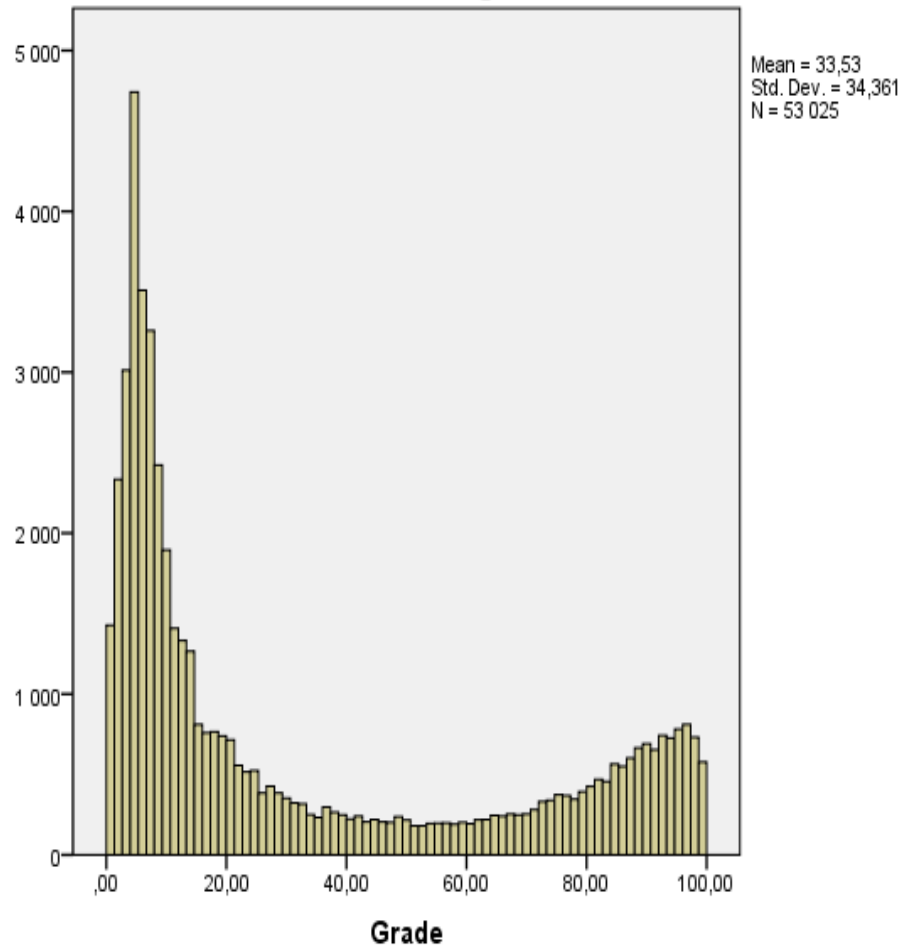


Challenges

Histogram



Histogram



Research goal and database



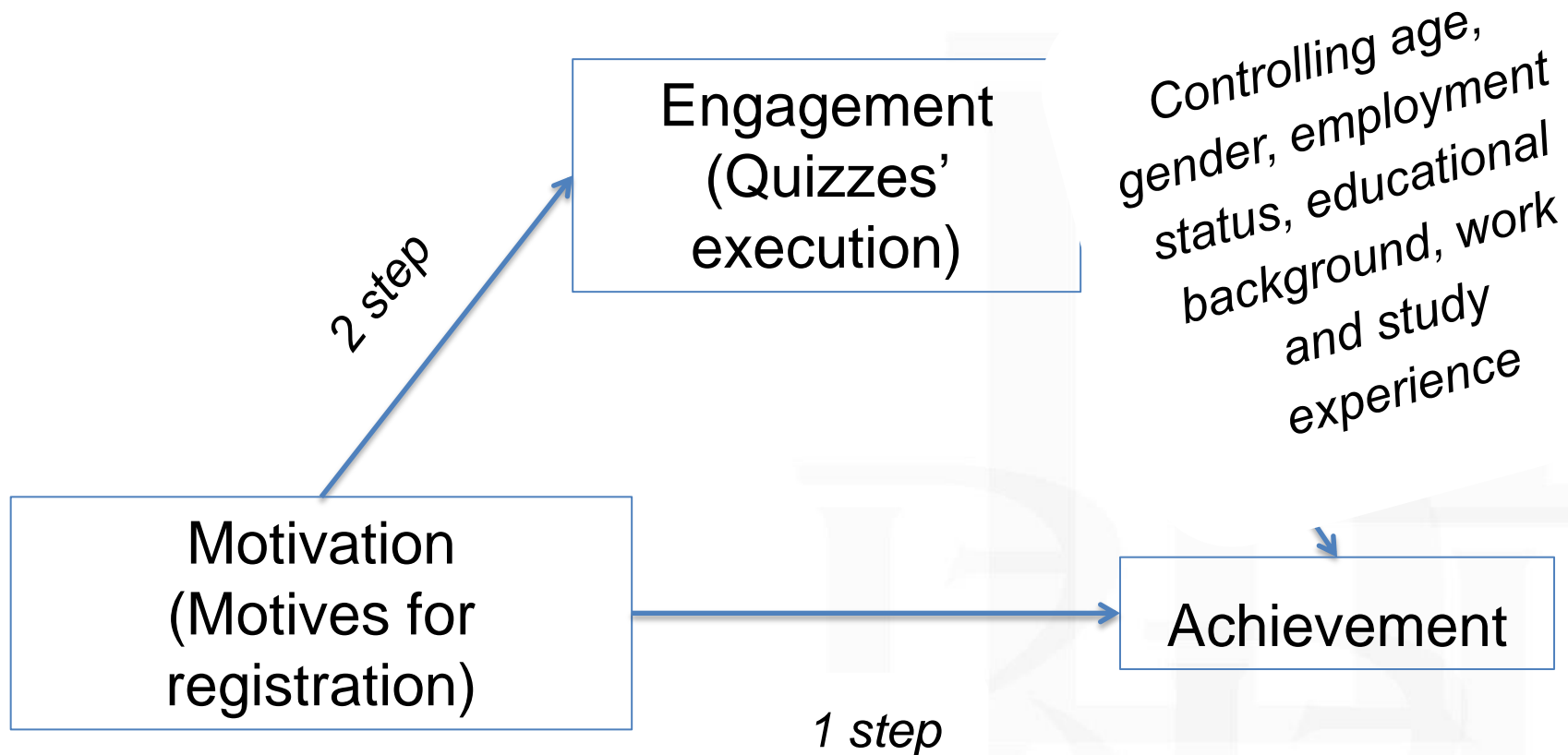
To estimate the effect of motivation on achievement controlling the level of engagement and socio-demographic characteristics of MOOC learners

Data on students of 20 online courses, launched on Coursera platform in 2014-2015 years by National Research University Higher School of Economics (HSE)





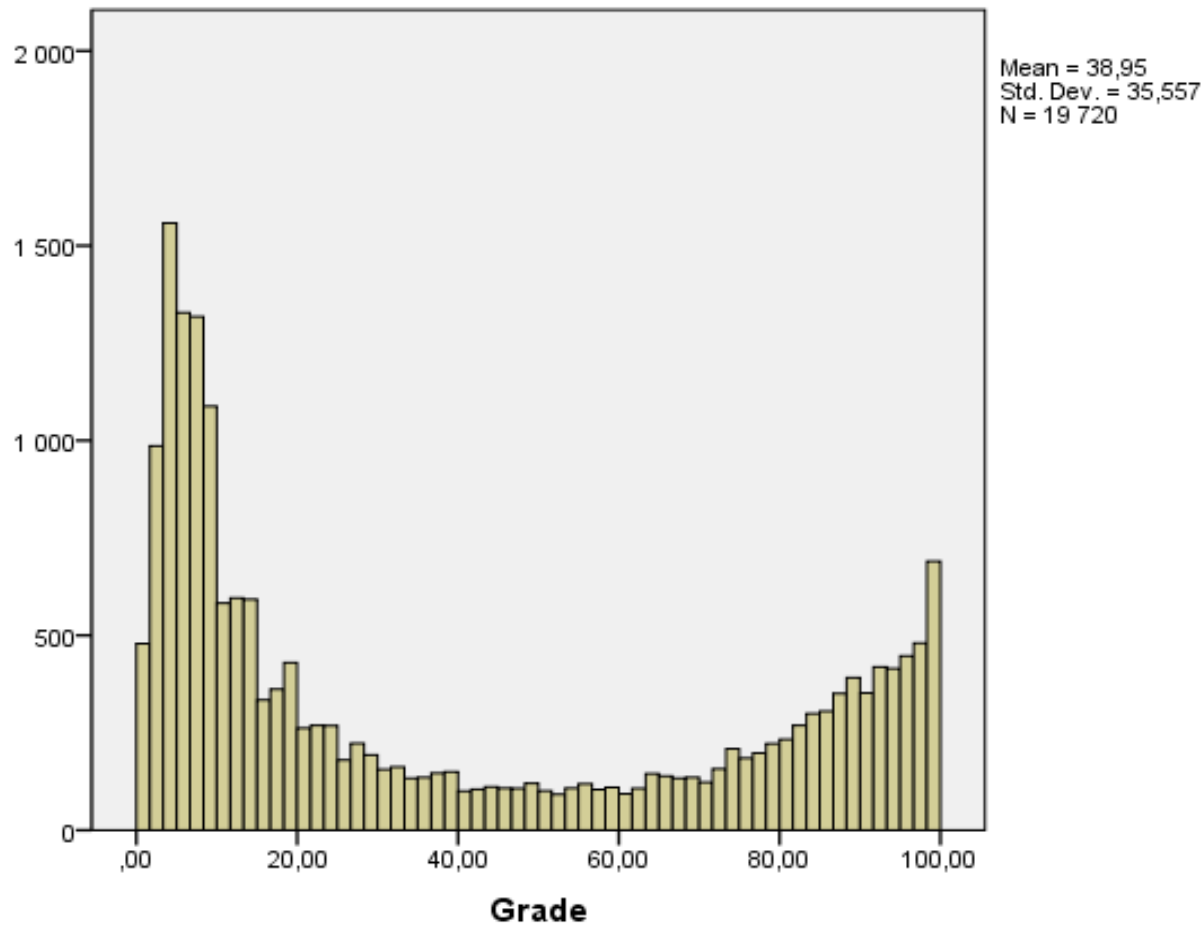
Research model





Variable measurement

Histogram





Variable measurement

Achievement

ordinal variable with 3 categories: lower than 20 points, between 20 points and 80 points, and higher than 80 points

ordinal

Motivation

reasons for registration for the course has been used. A positive value – intrinsic motivation, a negative value – extrinsic motivation

index

Engagement

quizzes' execution. it shows their intention to complete the course successfully

dummy



Result

1 Step

Statistically significant relation between motivation and achievement. Model can explain just 0.01% of variation in dependent variable

2 Step

statistically significant relation between motivation and mediator. Intrinsic motivation has a positive effect on the participation in first quiz, then, in all other cases, it plays a negative role

3 Step

simultaneously inclusion of mediator and motivation in one equation leads to the fact that independent variable loses its significance



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Thank you for attention!