The predictive value of motivation, education, and support on the number of MOOCs enrolled

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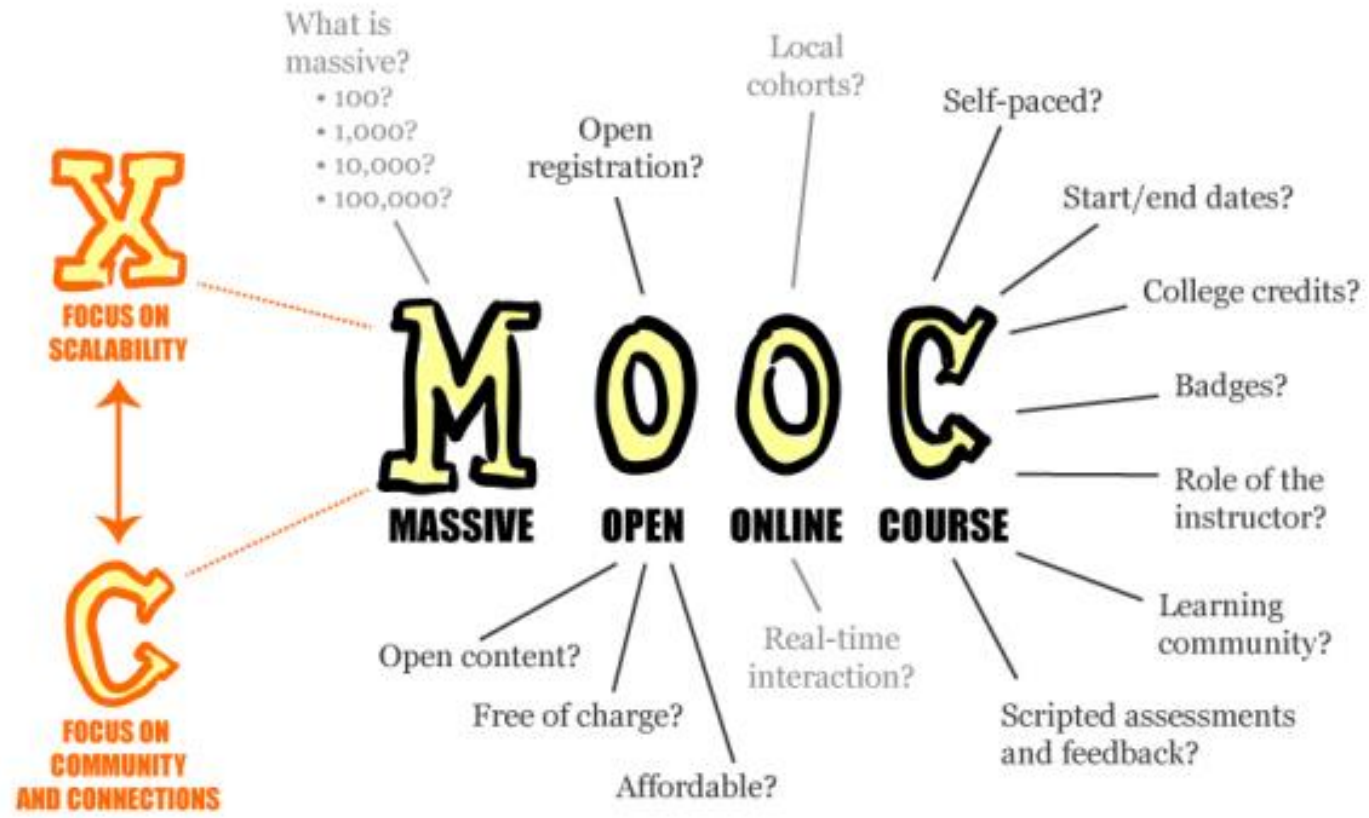
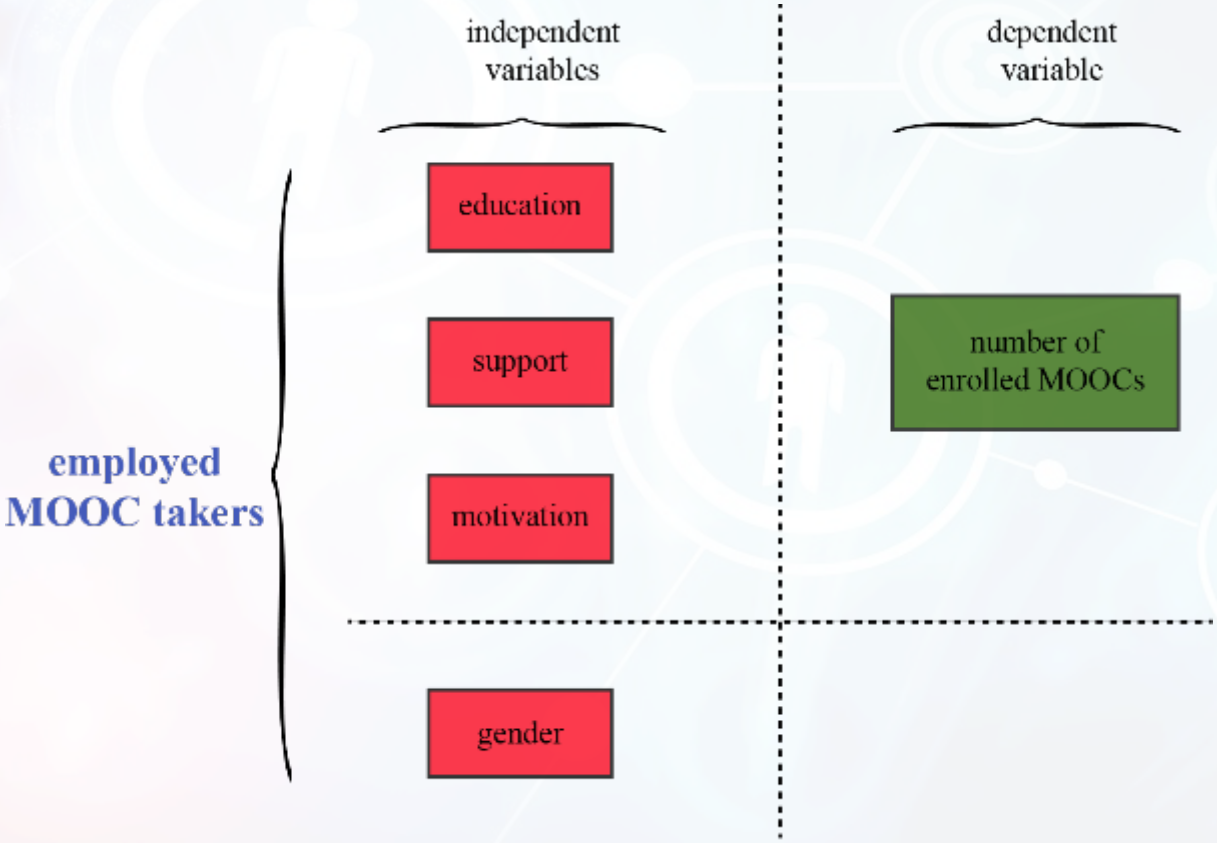
What are MOOCs?



Who deliver MOOCs?

Research Question

To what extent was **MOOC enrollment** influenced by **employed MOOC takers'** **educational level**, the **support** they received, and their **motivation** to enroll in MOOCs.



Participants

- Participants were **employed MOOC takers** (N=935; M = 463, F = 472) in five MOOCs
- Employed:
  - Employed for wages (N = 741)
  - Self-employed (N = 194)
- Five MOOCs
  - Business intelligence (N = 224)
  - Hands on ICT (N = 156)
  - Test anxiety (N = 185)
  - Bended Learning (N = 24)
  - Entrepreneurship (N = 246)

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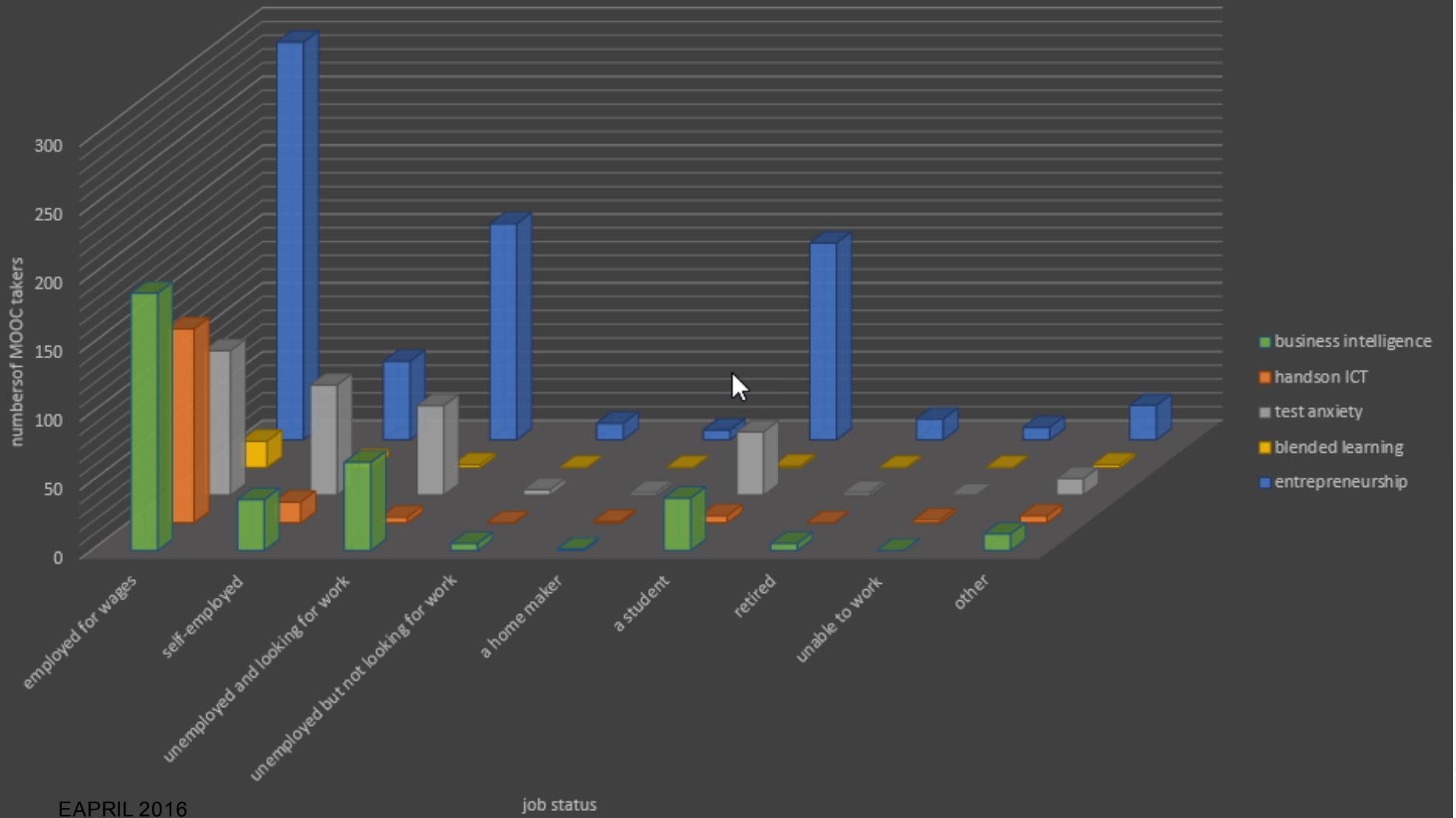

Independent Variable: Education

- Education (International Standard Classification of Education 1997):
  - Pre-primary education (N = 2)
  - Primary education or first stage of basic education (N = 3)
  - Lower secondary or second stage of basic education (N = 15)
  - (upper) secondary education (N = 64)
  - Post-secondary non-tertiary education (N = 36)
  - First stage of tertiary education (N= 200)
  - Second stage of tertiary education (N = 615)
- Variable → '2nd tertiary education' (dichotomous: false (N = 320) or true (N = 615))

Independent Variable: Support

- Support:
  - Receiving encouragement
  - Compensation for costs
  - Compensation for time
- However,
  - 277 of the 935 employed MOOC takers did not answer
  - Combinations of support had low numbers. For example, the number of MOOC takers receiving encouragement but no cost or time compensation was 10
- Variable → ‘support’ (dichotomous: false (N = 449) or true (N = 209))

Independent Variable: Motivation

type of motivation	*amotivation*	*extrinsic motivation*				*intrinsic motivation*
type of regulation	non-regulation	external regulation	introjected regulation	identified regulation	integrated regulation	intrinsic regulation
example	… but I have other priorities than taking MOOCs	… because my boss insists that I should take MOOCs	… because I would be ashamed not to take MOOCs	… because it is important to me to take MOOCs	… because I am always in to try out new things such as MOOCs	… because taking MOOCs is fun

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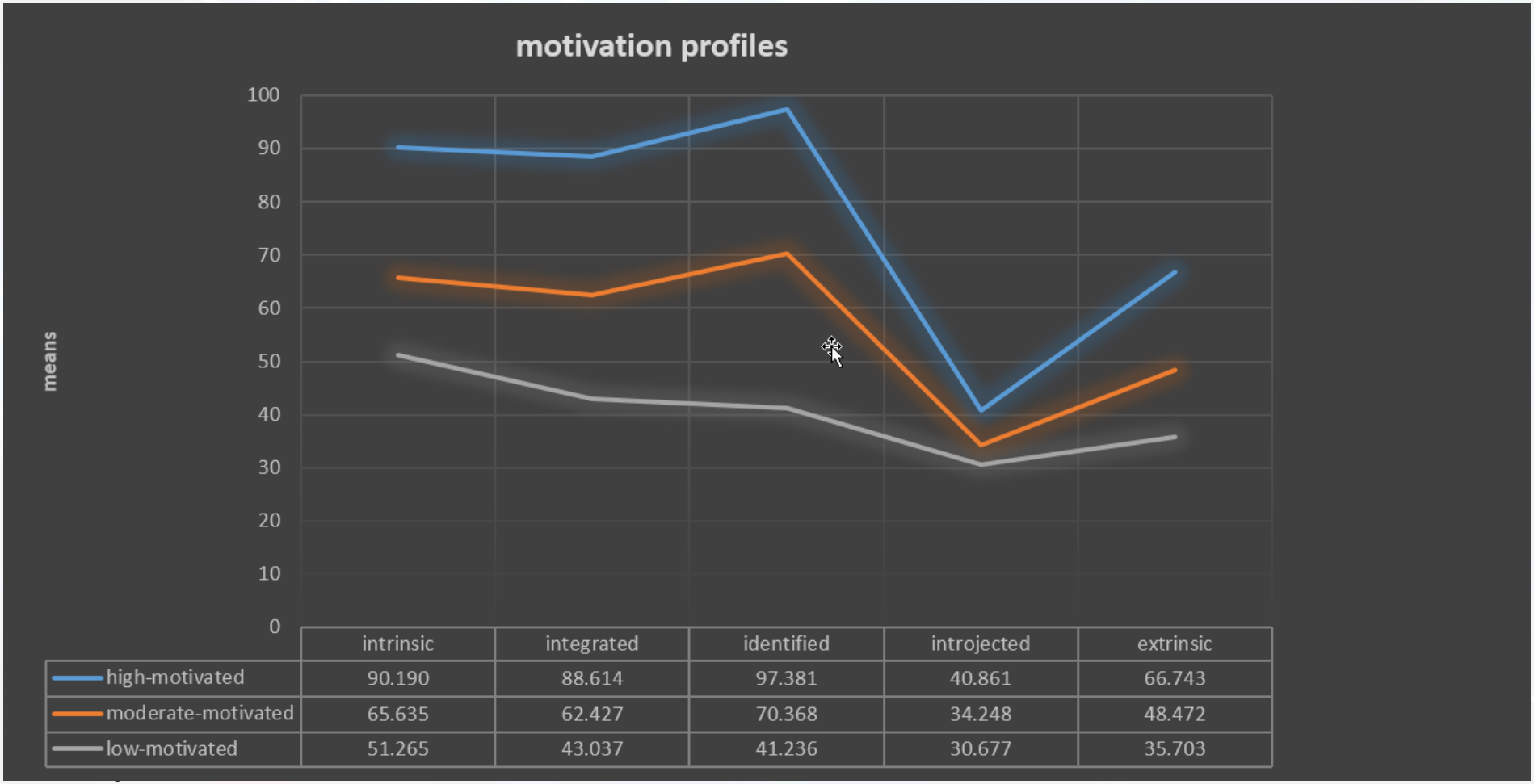

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high-motivated	90.190	88.614	97.381	40.861	66.743
moderate-motivated	65.635	62.427	70.368	34.248	48.472
low-motivated	51.265	43.037	41.236	30.677	35.703

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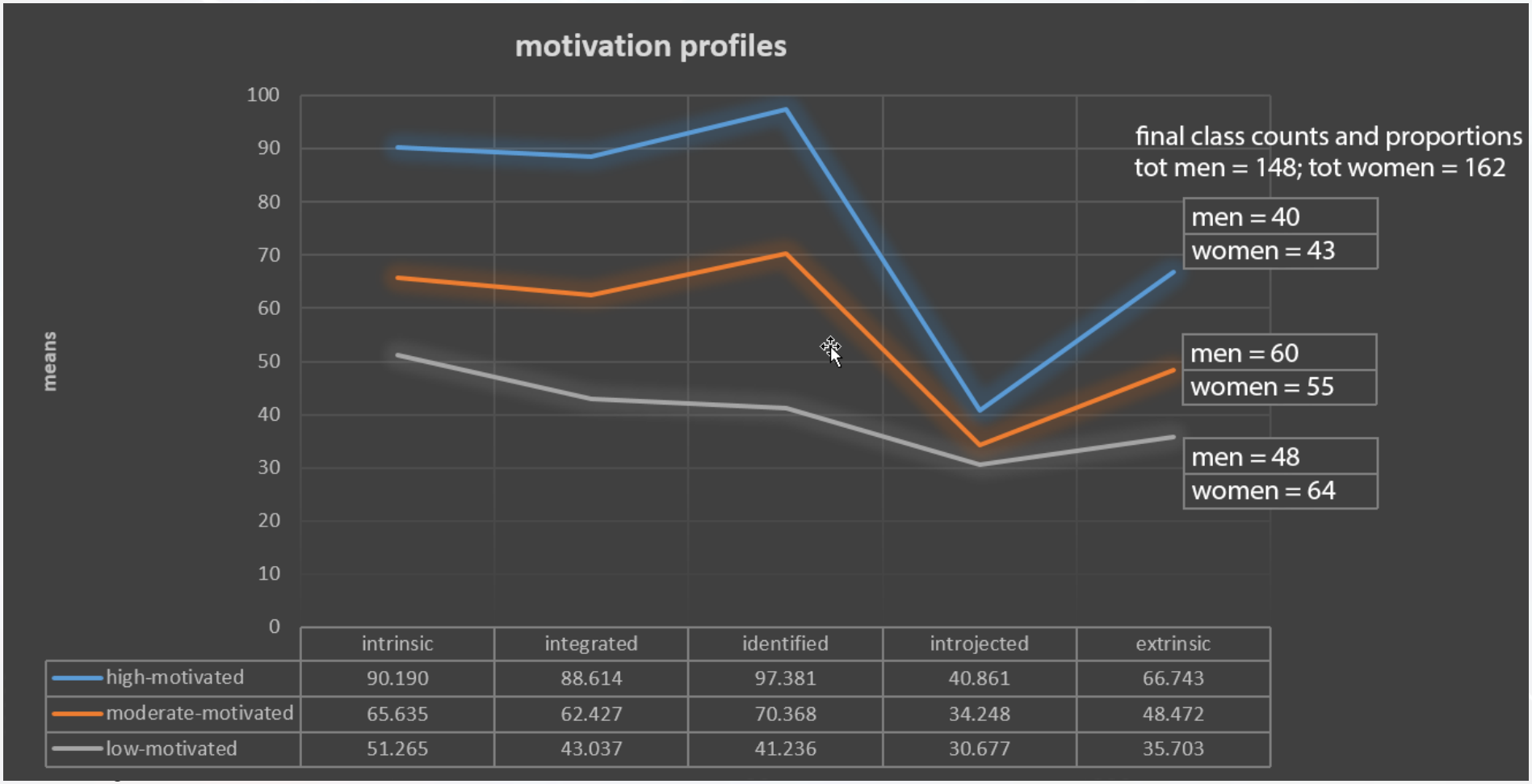

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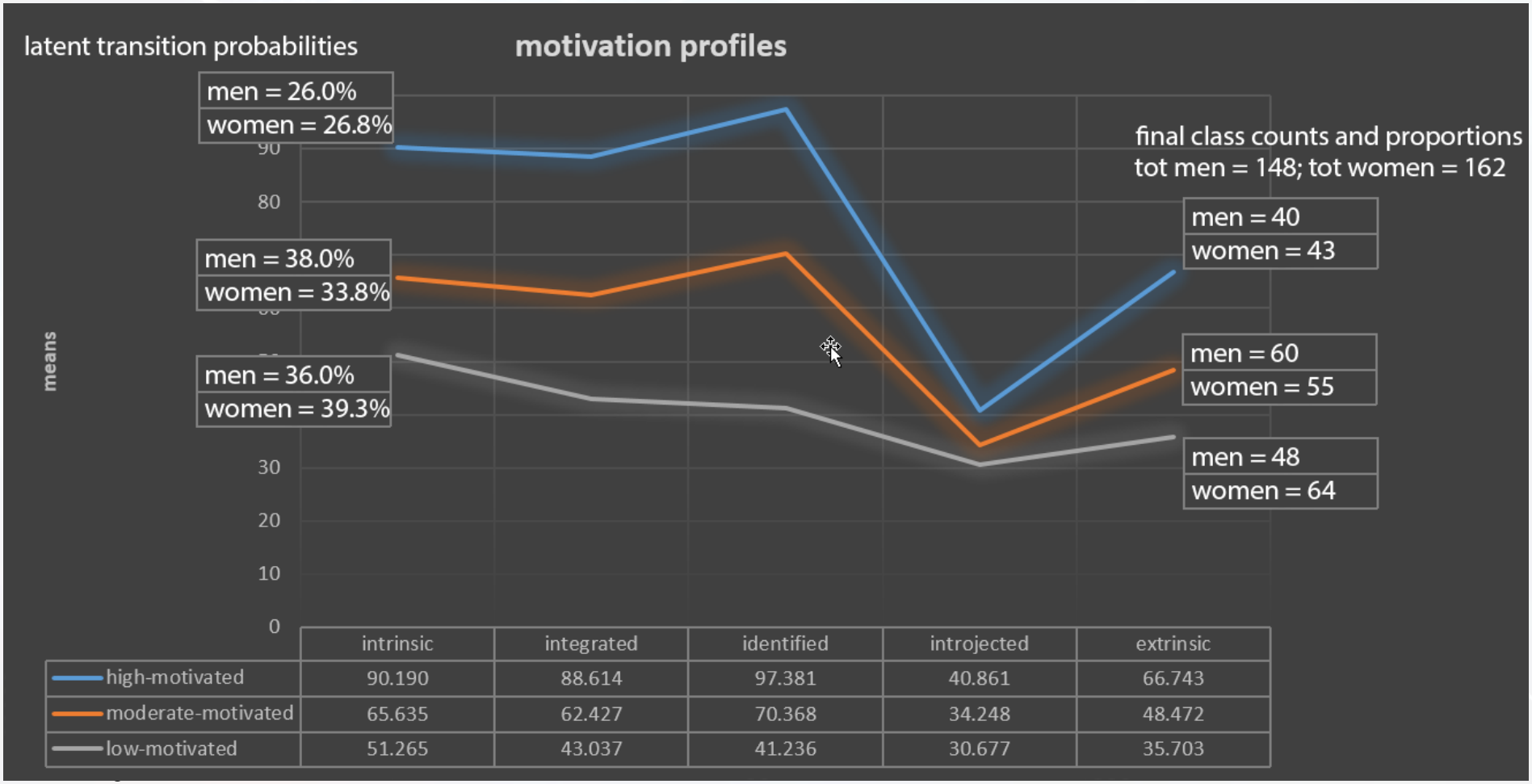

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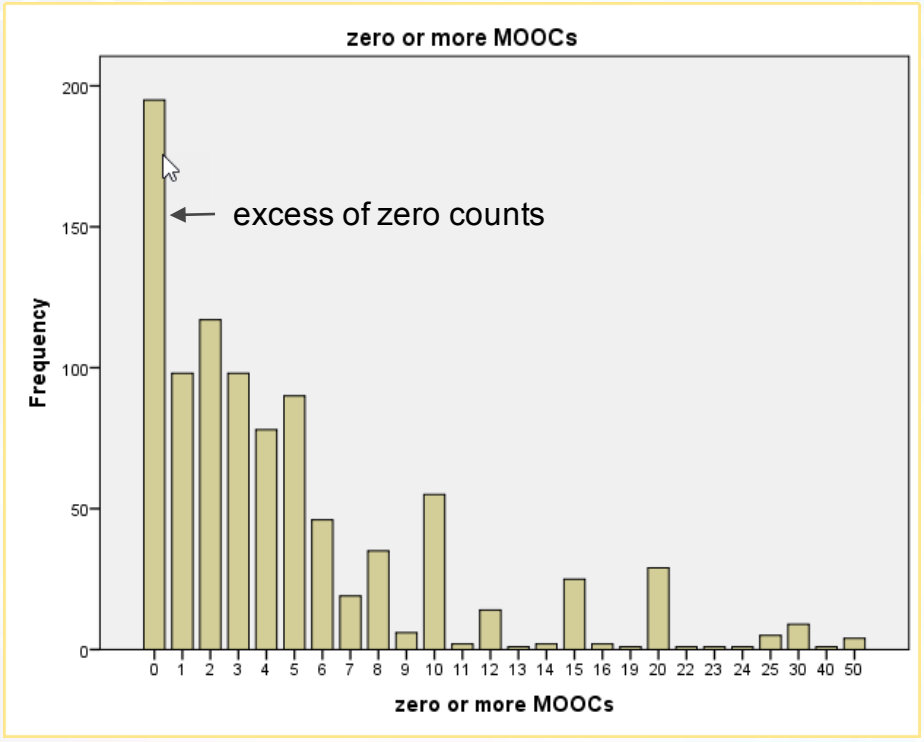
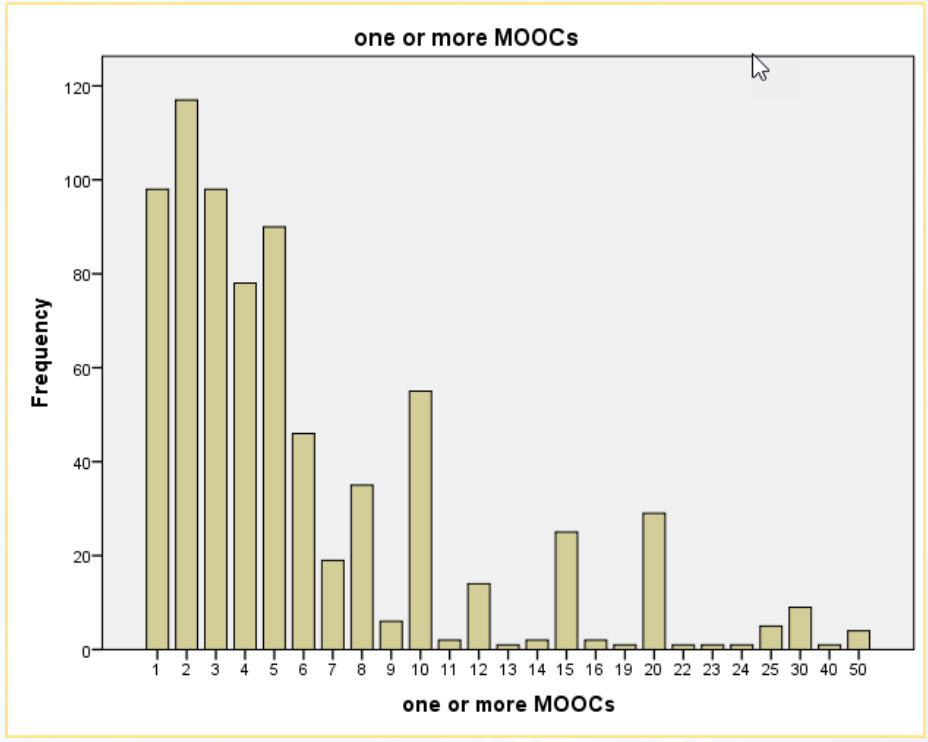
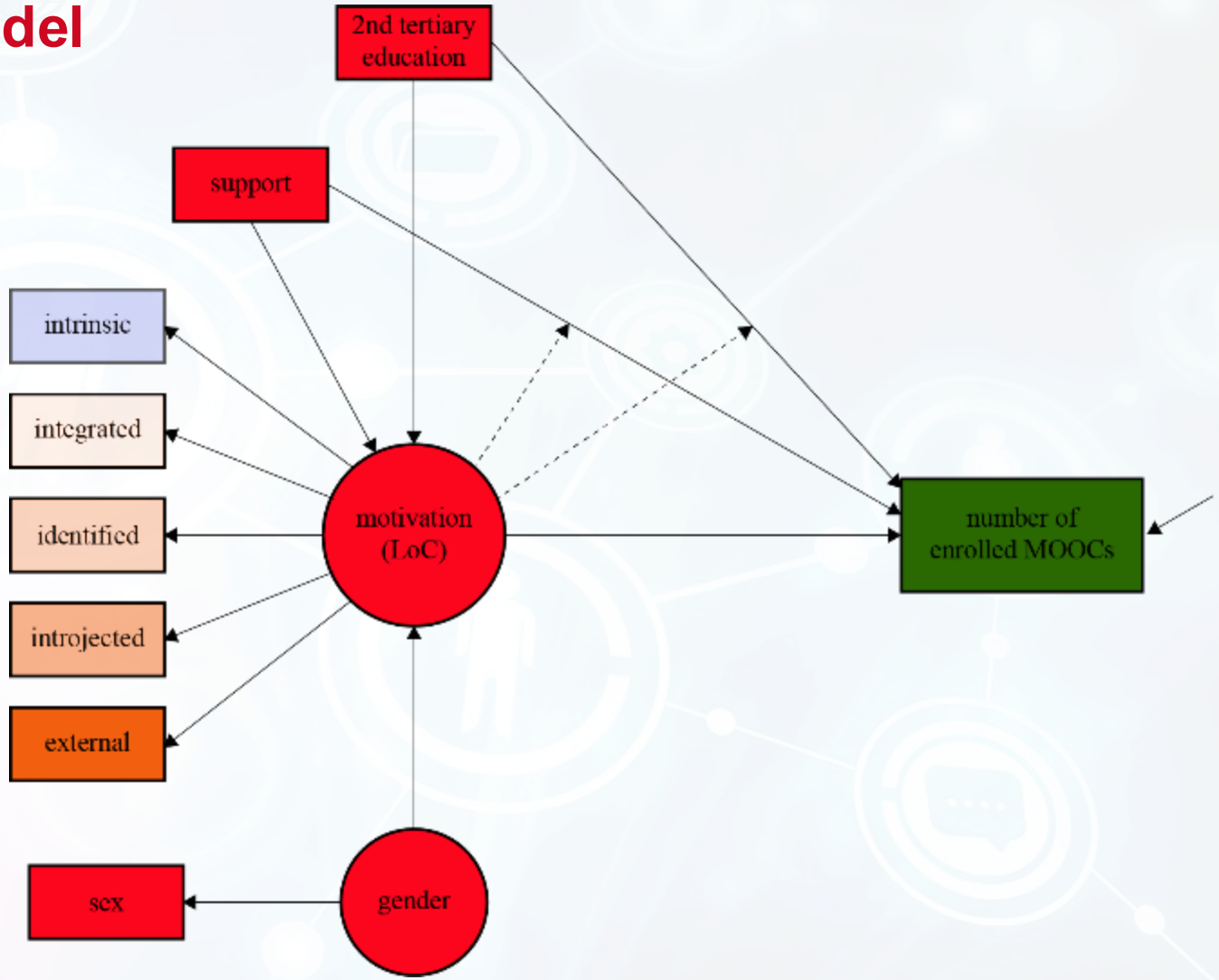
Dependent Variable: Number of Enrolled MOOCs





Variable → 'number of enrolled MOOCs' (count variable: zero-inflated Poisson)

Research Model



Analyses

- We performed a number of analyses:
  - With regard to motivation:
    - Rasch analyses to determine undimensionality, removal of DIF and local dependencies, and to determine the person locations of the latent class indicators [RUMM2030 & Winsteps]
    - Confirmatory analyses to determine the construct validity of the five latent class indicators to form a measure for motivation [MPLUS]
    - Latent class analyses to determine the number of latent classes [MPLUS]
  - With regard to the research model:
    - Analyses on the finite mixture model [MPLUS]
      - Multinomial logistic regressions
      - Zero-inflated Poisson regressions

Findings

- Regarding the motivation classes:
  - Gender had no effect on the probabilities to be in a certain motivation class
  - Education affected the probabilities to be in a certain class: MOOC takers who received 2nd tertiary education tend to fall in the low-motivated profile
  - Support had no effect on the probabilities to be in a certain motivation class

Findings

- Regarding to the number of enrolled MOOCs:
  - Education had a positive interaction effect with the moderate-motivated profile
  - Support had no interaction effect with any motivation class
  - All motivation classes (i.e., the high-, moderate-, and the low-motivated profiles) directly effected the number of enrolled MOOCs. The high-motivated profile had the biggest impact followed by the low-motivated profile. The moderate-motivated profile had the lowest impact.
  - Whereas the moderate-motivated profile affected the number of enrolled MOOCs the least directly, it had an interaction effect with education which possibly could compensate the loss of the direct effect (this has to be checked however)

Findings

- The moderate- and low-motivated profiles were predominantly and equally responsible for the excess of zero counts whereas the high-motivated profile was not. However, the result was significant only for the moderate-motovated profile

Conclusion

- As a high-motivated profile is characterized by a high identified regulation, MOOC providers should take care that they offer MOOCs that fit the professional development needs of the MOOC takers. But at the same time the high-motivated profile tend to have MOOC takers who did not received 2nd tertiary education. Therefore, MOOC providers shoud take care that when develping MOOCs this group of MOOC takers is taken into account in terms of pre-knowledge, level of difficulty, etcetera.


time for questions

Padlet

- Question 1:
  - **Should MOOC providers have an important role to remove social inequality with respect to education?**

URL: http://padlet.com/pad_eapril_2016/Question11