Understanding and Supporting Self-Regulated Learning in Massive Open Online Courses

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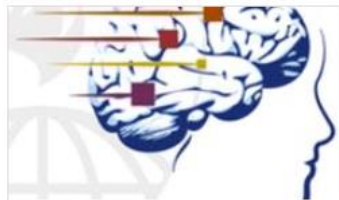
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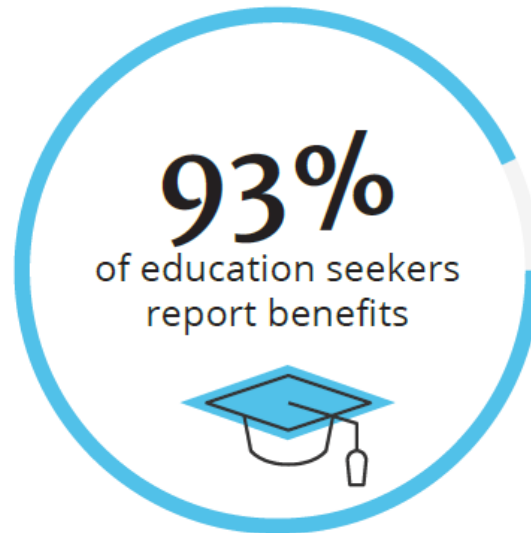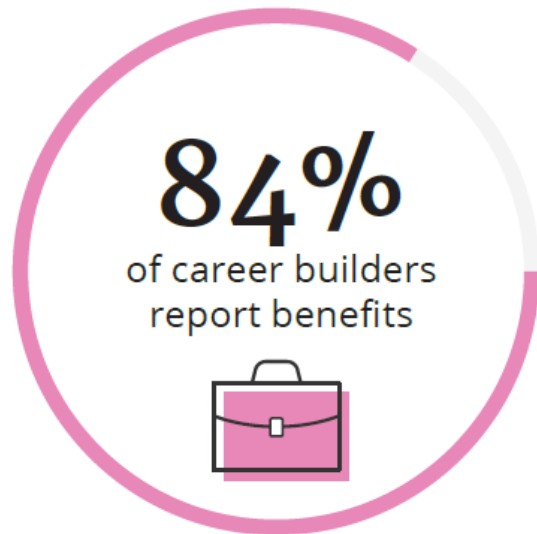Duke University
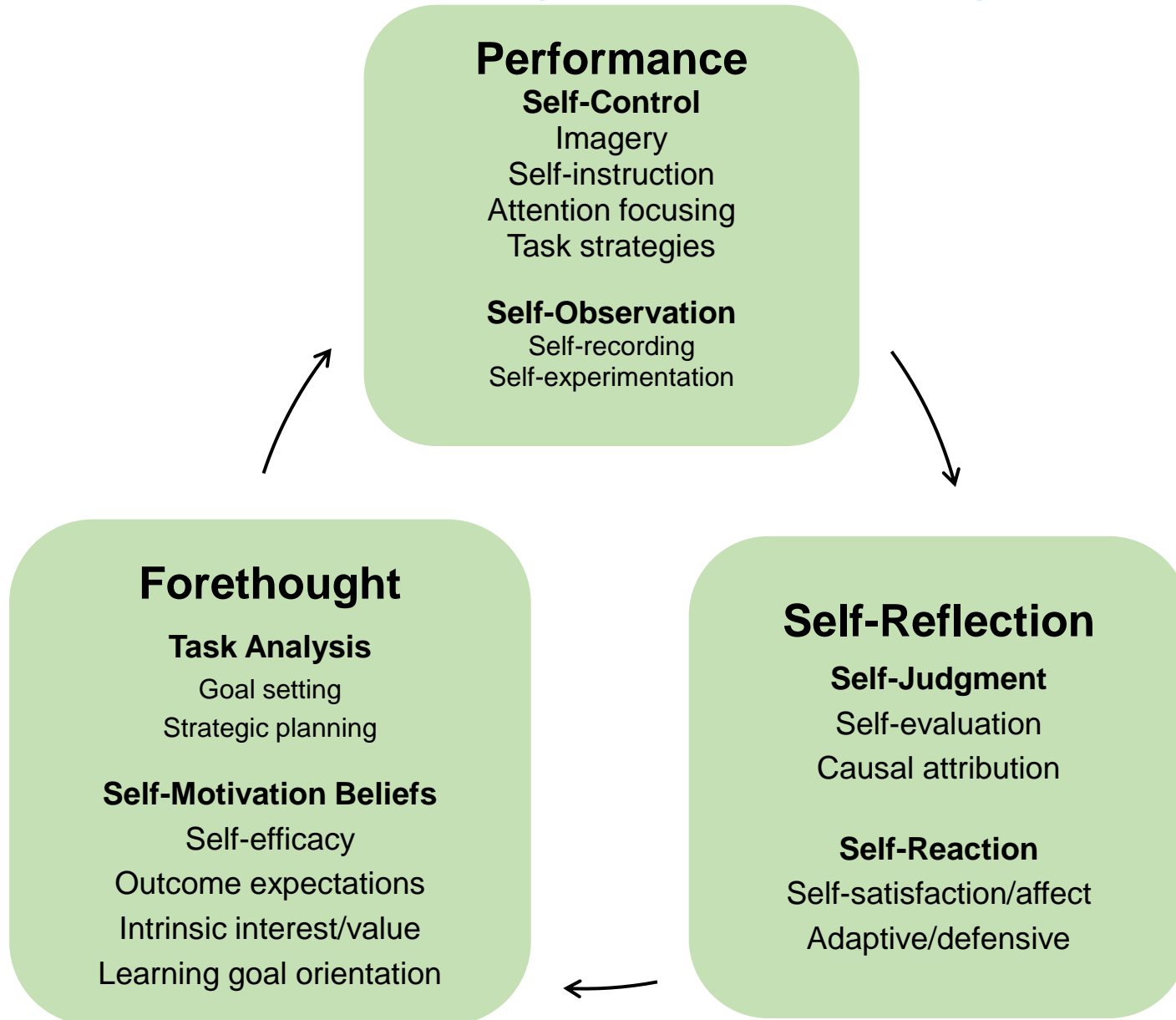### Statistics with R

University of Pennsylvania
Business Foundations

›

What are the benefits for the learners?

Results from Coursera's 2017 Learner Outcomes Survey:

84%
of career builders
report benefits

93%
of education seekers
report benefits

72%
of all learners report
gaining confidence

Data is based on 13,917 survey responses collected from March 2016 through December 2016 from people around the world who completed courses on Coursera.

Self-regulated learning and learning in MOOCs

Performance

Self-Control
Imagery
Self-instruction
Attention focusing
Task strategies

Self-Observation
Self-recording
Self-experimentation

Forethought

Task Analysis
Goal setting
Strategic planning

Self-Motivation Beliefs
Self-efficacy
Outcome expectations
Intrinsic interest/value
Learning goal orientation

Self-Reflection

Self-Judgment
Self-evaluation
Causal attribution

Self-Reaction
Self-satisfaction/affect
Adaptive/defensive

SRL Model from Zimmerman and Campillo (2003)

➢ Learners differ in their abilities to self-regulate their own learning.

(Hood, Littlejohn, & Milligan, 2015)

➢ SRL skills predict goal attainment.

(Kizilcec, Pérez-Sanagustín, & Maldonado, 2017)

➢ Supporting SRL enhances SRL and learning outcomes.

(Wong, Baars, Davis, Van der Zee, Houben, & Paas, 2017)

Current Study: Effects of Prompting and Recommending Self-Regulated Learning in MOOCs

Main Research Question:

Do prompting and recommending self-regulated learning strategies or prompting self-regulated learning strategies alone have an effect on student success in MOOCs?

Serious Gaming
Erasmus University Rotterdam

Econometrics: Methods and Applications
Erasmus University Rotterdam

Innovation Management
Erasmus University Rotterdam

Week	Conditions		
	Control	**SRL prompts**	**SRL prompts + recommendations**
1	1) Consent for participation 2) Demographic questionnaire	1) Consent for participation 2) Demographic questionnaire 3) SRL prompts set 1	1) Consent for participation 2) Demographic questionnaire 3) SRL prompts + recommendations set 1
2	1) Motivation questionnaire	1) Motivation questionnaire 2) SRL questionnaire 3) SRL prompts set 2	1) Motivation questionnaire 2) SRL questionnaire 3) SRL prompts + recommendations set 2
3		1) SRL prompts set 3	1) SRL prompts + recommendations set 3
4		1) SRL prompts set 4	1) SRL prompts + recommendations set 4
5		1) SRL prompts set 5	1) SRL prompts + recommendations set 5
6	**Serious Gaming and Econometrics*** 1) Motivation questionnaire 2) SRL questionnaire	1) SRL prompts set 6 **Serious Gaming and Econometrics*** 2) Motivation questionnaire 3) SRL questionnaire	1) SRL prompts + recommendations set 6 **Serious Gaming and Econometrics*** 2) Motivation questionnaire 3) SRL questionnaire
7		1) SRL prompts set 7	1) SRL prompts + recommendations set 7
8	**Innovation Management*** 1) Motivation questionnaire 2) SRL questionnaire	1) SRL prompts set 8 **Innovation Management*** 2) Motivation questionnaire 3) SRL questionnaire	1) SRL prompts + recommendations set 8 **Innovation Management*** 2) Motivation questionnaire 3) SRL questionnaire

Preliminary findings for

Serious Gaming
Erasmus University Rotterdam

Taught by: Jeroen Jansz, Full Professor
Media & Communication

Taught by: Mijke Slot, Dr.
Media & Communication

|	
⏱ **Commitment**	6 weeks of study, 3-5 hours/week
💬 **Language**	English, **Subtitles:** French
🎓 **How To Pass**	Pass all graded assignments to complete the course.
⭐ **User Ratings**	★★★★½ Average User Rating 4.5 See what learners said

Number of participants across the three conditions

Conditions	Number of online participants	Number of participants who completed Week 2 survey
Control	100	18
Prompt Only	125	22
Prompt and Recommendation	132	18
Total	357	58

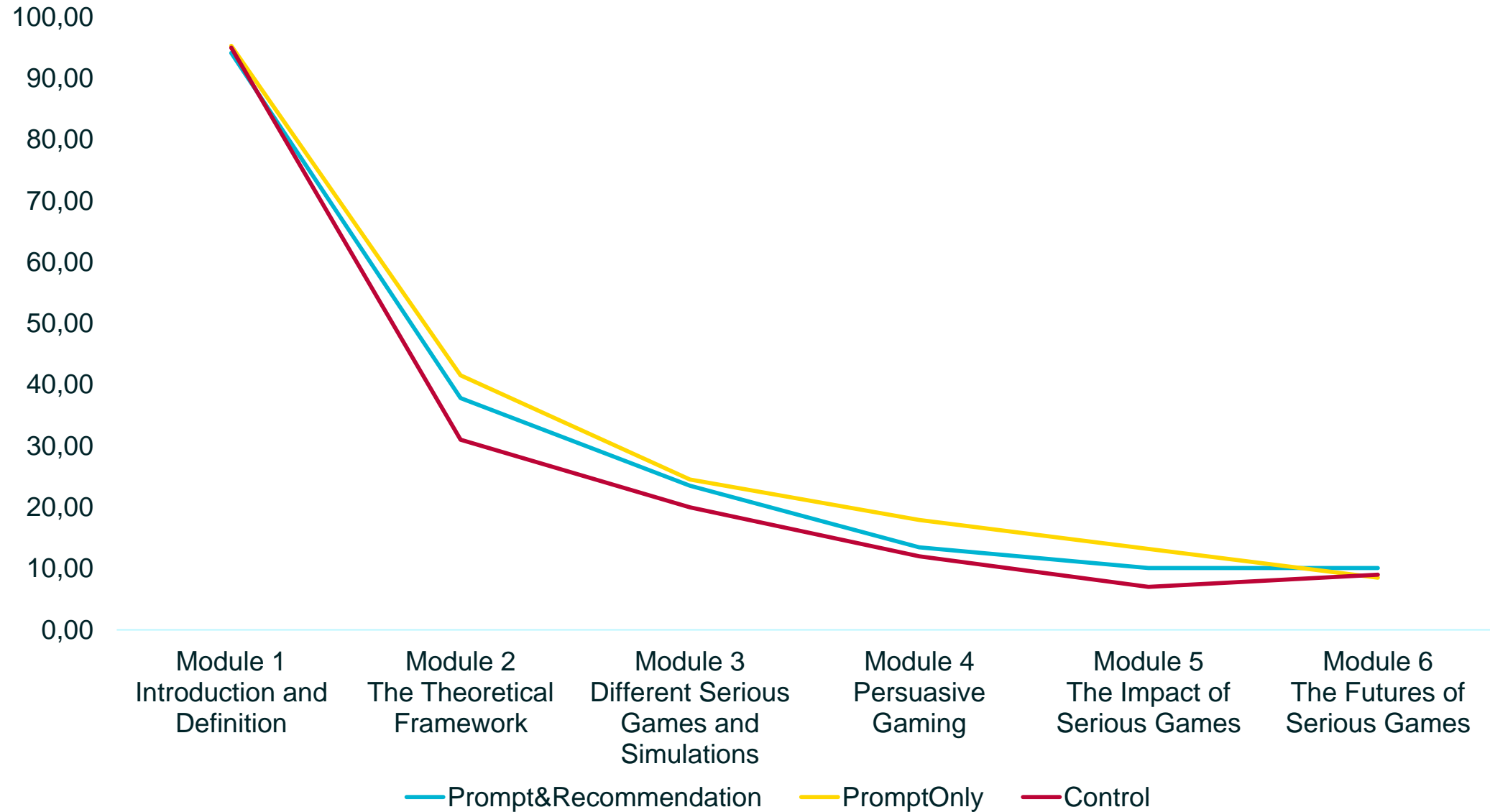# Self-Reported Motivation and Self-Regulated Learning

Means of Four Motivation Types
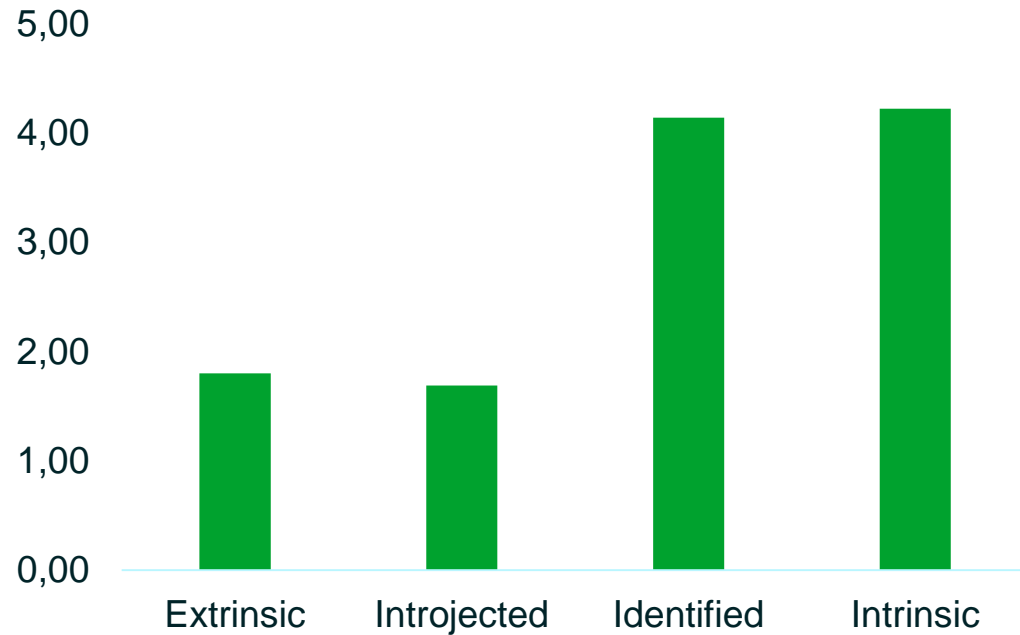
Means of Self-Regulated Learning Skills
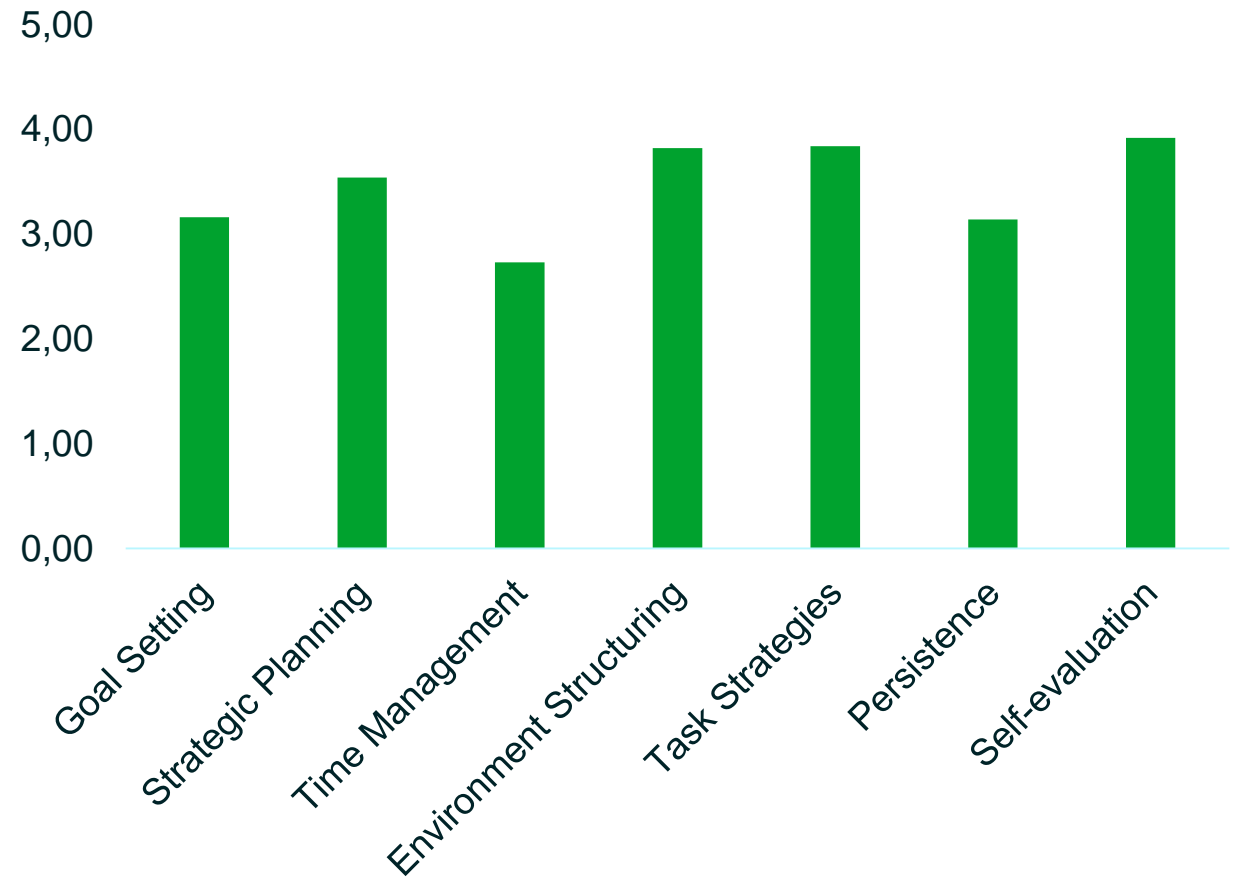
Percentage of Active Participants across the Serious Gaming Course Modules

Next steps…

➤ Complete data collection

➤ Examine relationships between motivation, self-regulated learning, online learning behaviors, student success in MOOCs

Practical Implications

➤ Understand the impact of students' motivation and self-regulated learning skills

➤ Provide support for students to self-regulate their own learning in MOOCs

Questions?

For more information, read
Wong, J., Baars, M., Davis, D., Van der Zee, T., Houben, GJ., &
Paas, F. (2017). Supporting self-regulated learning in online
learning environments and MOOCs: A systematic review.
International Journal of Human-Computer Interaction.
Manuscript provisionally accepted.

Thank You

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