The Self in Supporting Self-regulated Learning

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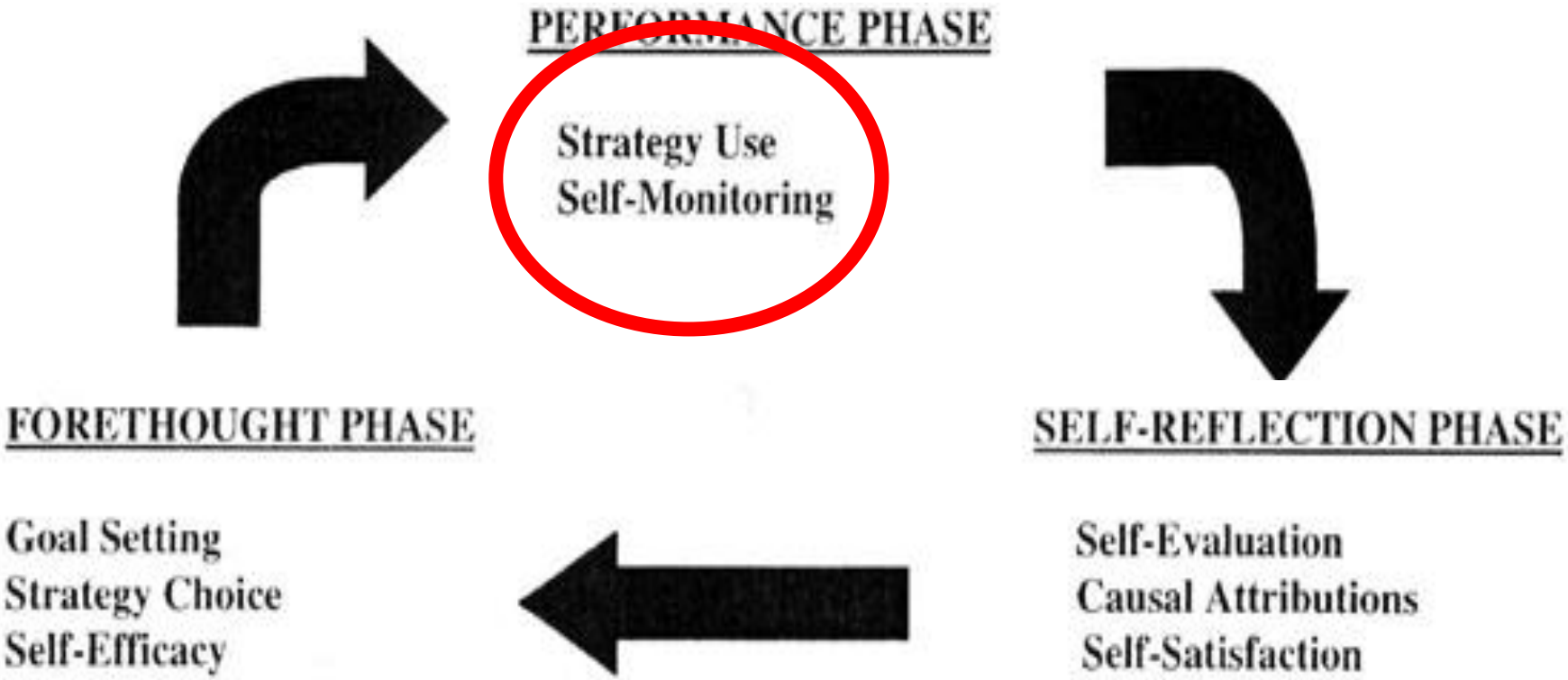
Self-regulated learning



Easier seen than done

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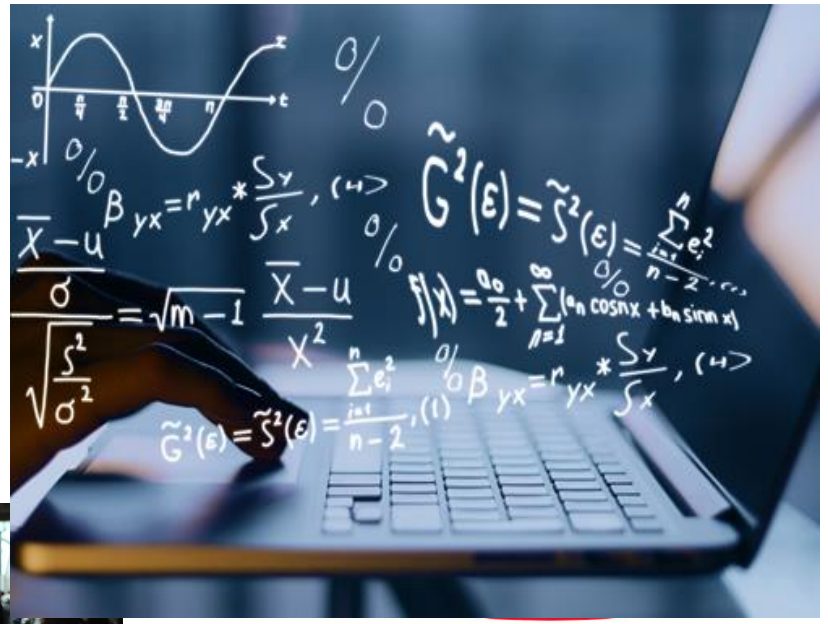

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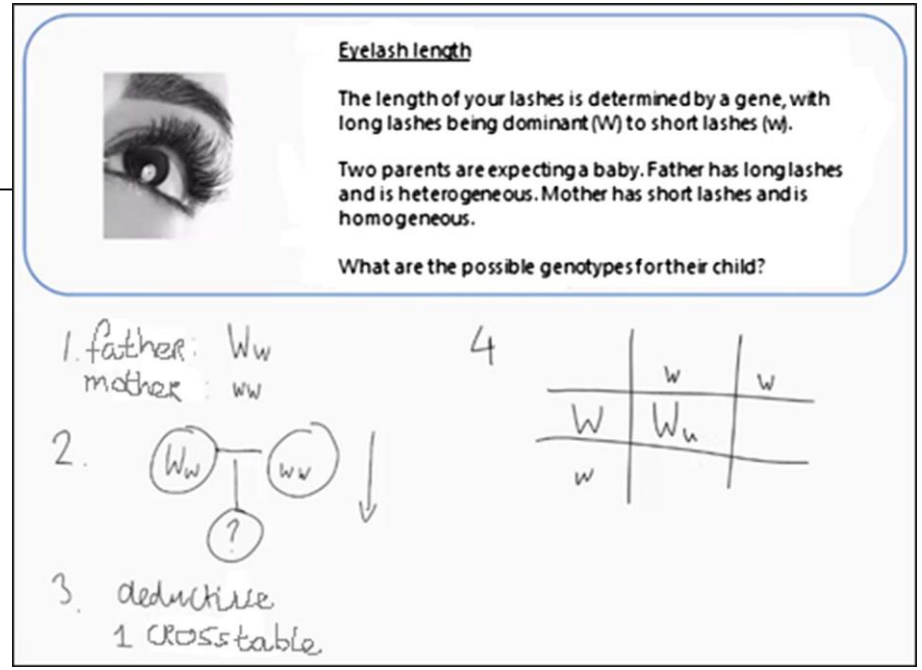
Kardas, M., & O'Brien, E. (2018). Easier seen than done: Merely watching others perform can foster an illusion of skill acquisition. *Psychological science*.

Can we support SRL?

Yes we can

Table 1 Features of the video modeling examples

Example #	Model	Complexity level	# Steps correct/self-assessment	Effort	Task-selection
1	Female	Level 1	5 Steps	2	+2
2	Male	Level 1	5 Steps	5	+1
3	Female	Level 2	4 Steps	7	0
4	Male	Level 2	3 Steps	8	−1



(e.g., Raaijmakers, Baars, Schaap et al., 2018; Raaijmakers, Baars, Paas et al., 2018)

Generation strategies to support self-monitoring

- Delayed keywords (e.g., Thiede et al., 2005)
- Delayed summaries (e.g., Thiede & Anderson, 2003)
- Self-explaining (e.g., Griffin et al., 2008)
- Concept maps (e.g., Thiede et al., 2010)
- Completion problems (e.g., Baars et al. 2013)
- Practice problems (e.g., Baars et al. 2018)
- Diagrams (e.g., Van Loon et al., 2014)
- Drawing (e.g., Thiede et al., 2022)

Online Self-Regulated Learning

Image from https://www.smartbuilder.com/servicesold/what-is-effective-elearning/

Can we support SRL online?

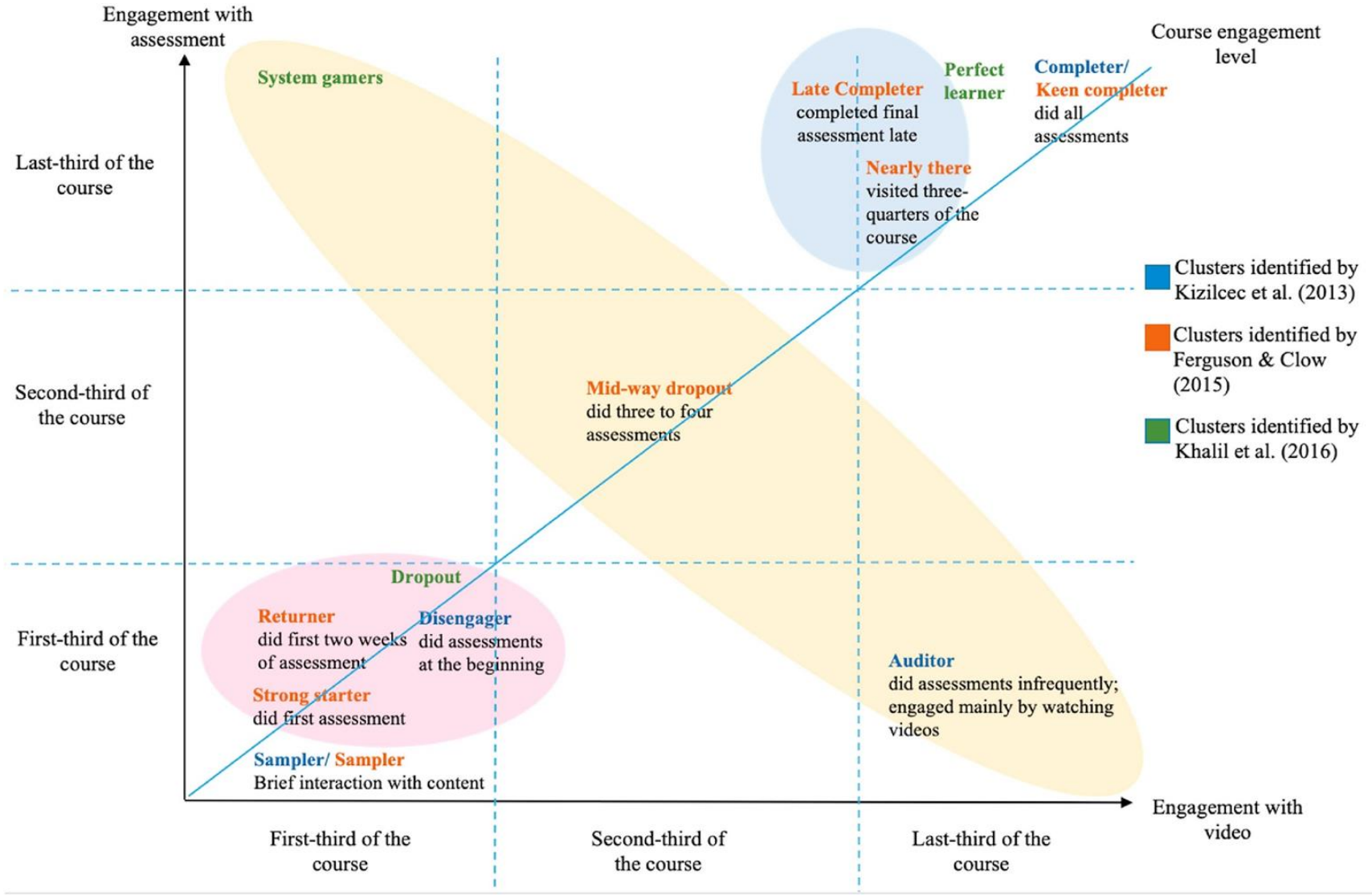
Yes we can

Table 2. Summary of approaches and number of studies reviewed across approaches.

Approaches	Number of studies
Prompts	14
Feedback	2
Prompts and Feedback	4
Integrated Support Systems	10
Other approaches	
Self-monitoring form	1
E-journal	1
Training	2
Conceptualization of learning outcomes	1

(from Wong et al., 2019)

Clustering Learners in MOOCs



(from Wong et al., 2019)

ASKING QUESTIONS TO INCREASE LEARNING

1. PLANNING
2. MONITORING
3. REFLECTING

- NOT AT ALL
- SOMETIMES
- NOT SURE
- MOST OF THE TIME
- ALL THE TIME

3 QUESTIONS

1 Am I setting goals to ensure that I have a good understanding of the course materials?

2 Am I concentrating on learning the materials in this course?

3 Do I understand all the key points of this week's course materials?

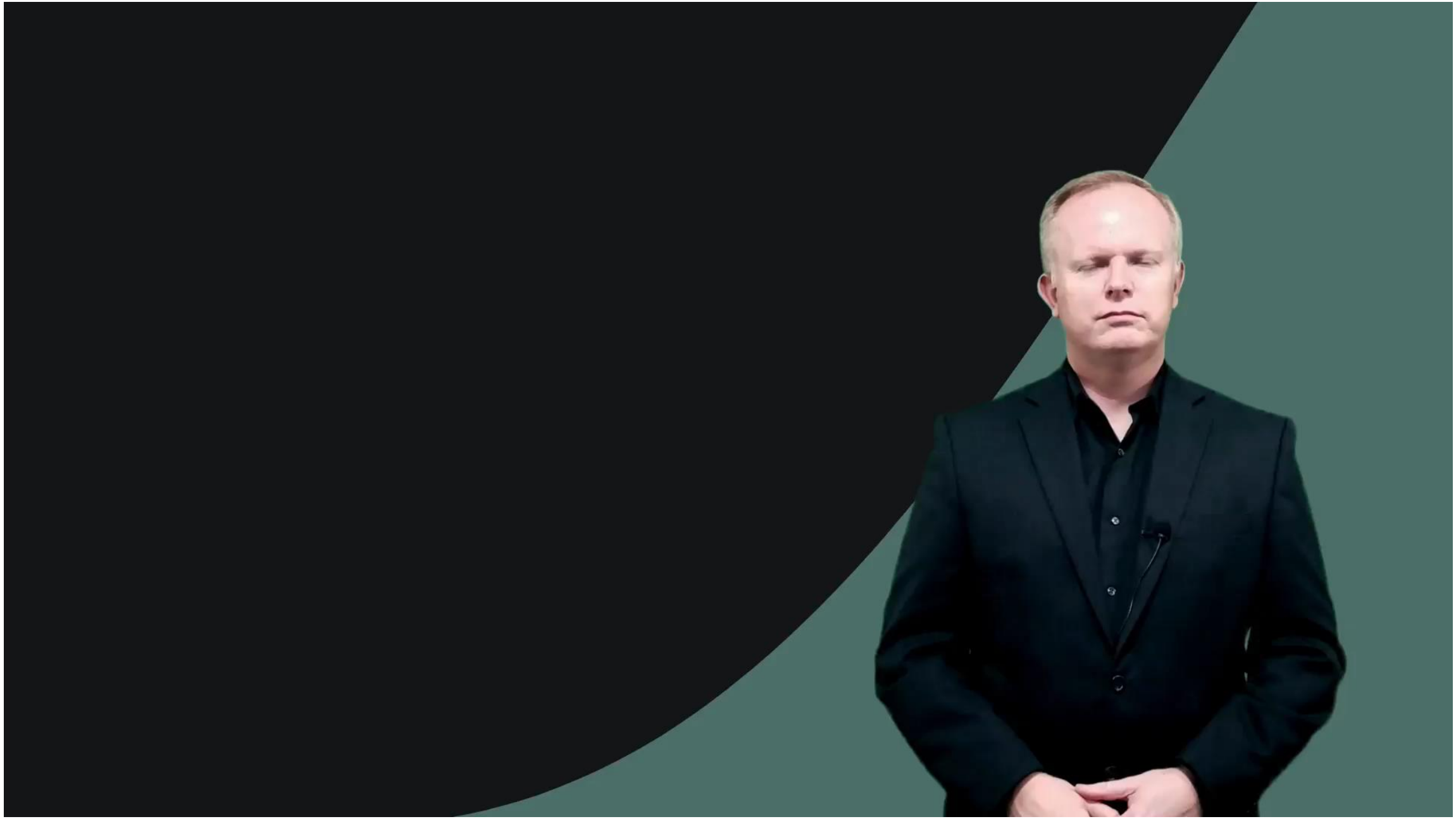
3 TIPS

1 Set clear learning goals on what you want to learn and make plans to achieve them.

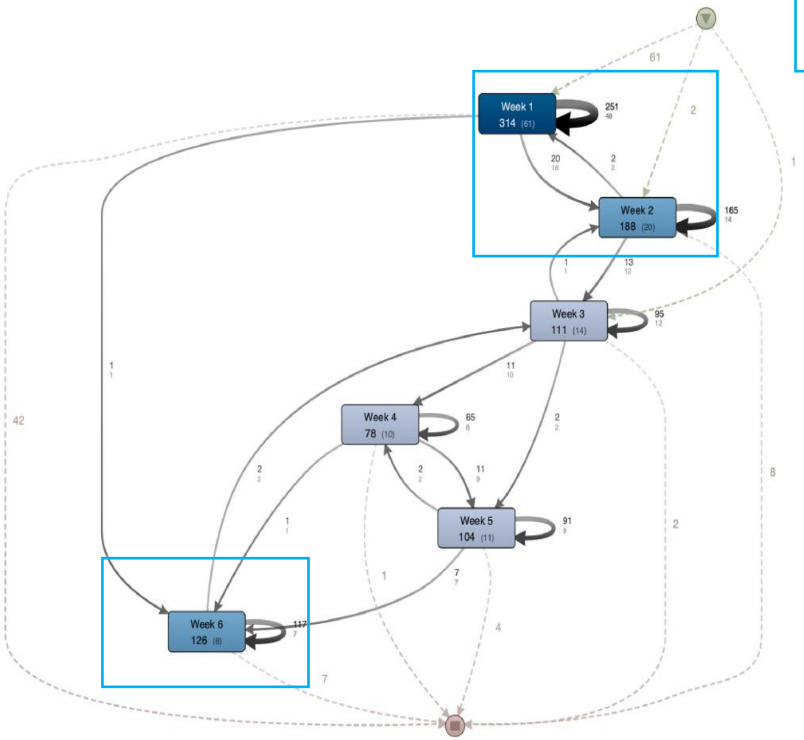
2 Choose a time and location without distraction when studying for this course.

3 At the end of your learning session, think about what you have learned in the course for this week.

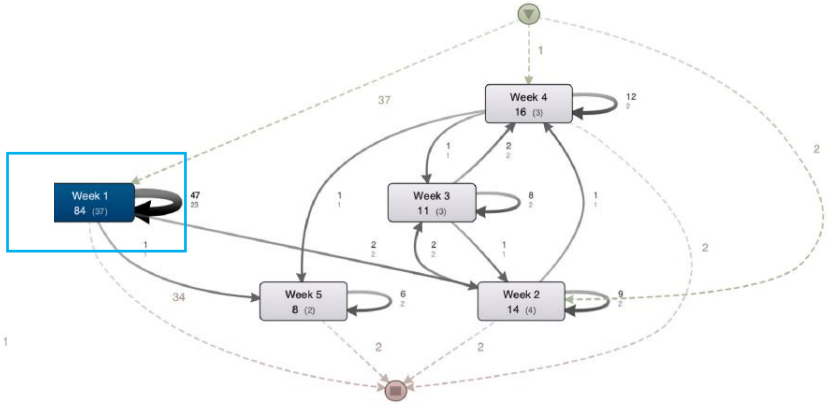
(from Wong et al., 2019)



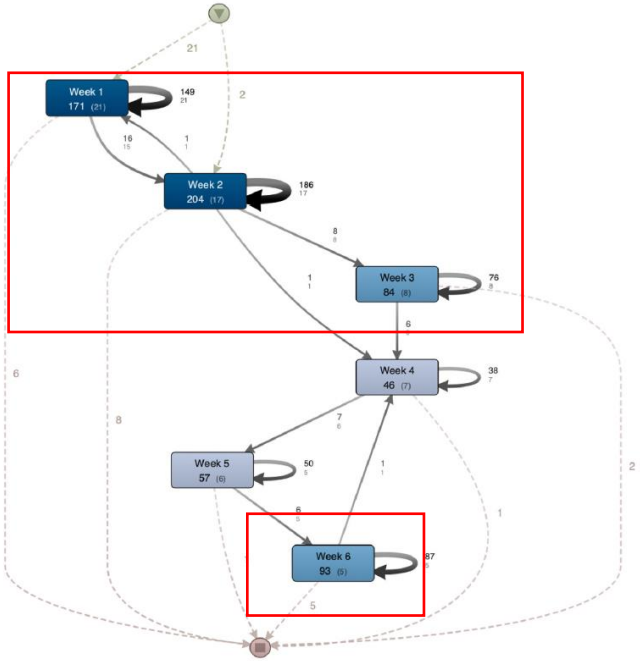
Process Mining: course activities completed on time across weeks



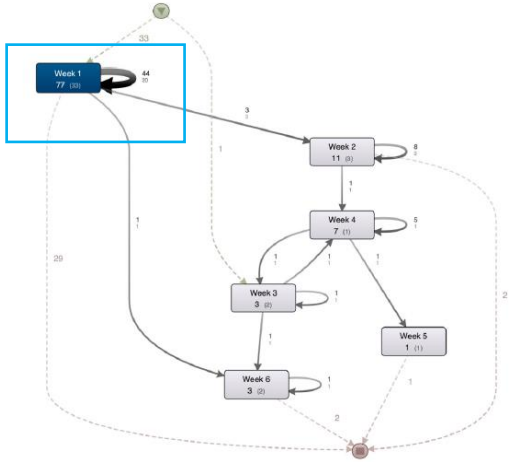
Control



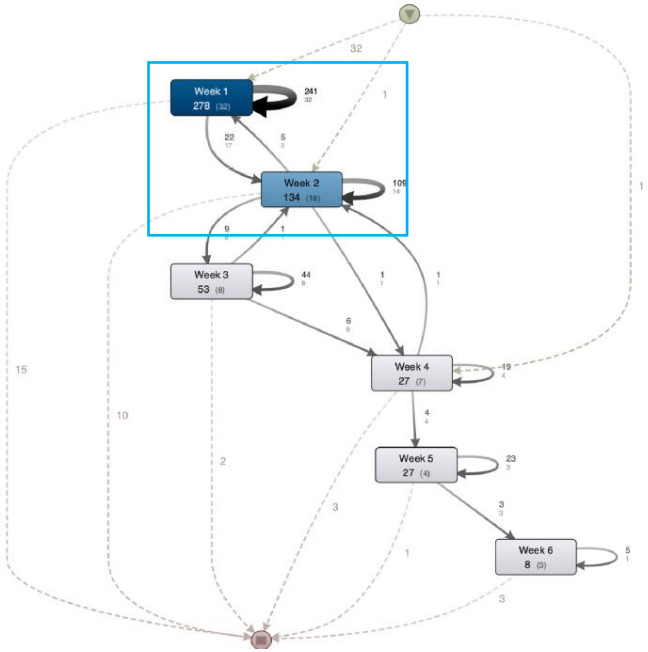
SRL-Q prompt non-viewers



SRL-Q prompt viewers



SRL-QR prompt non-viewers



SRL-QR prompt viewers

(from Wong et al., 2021)

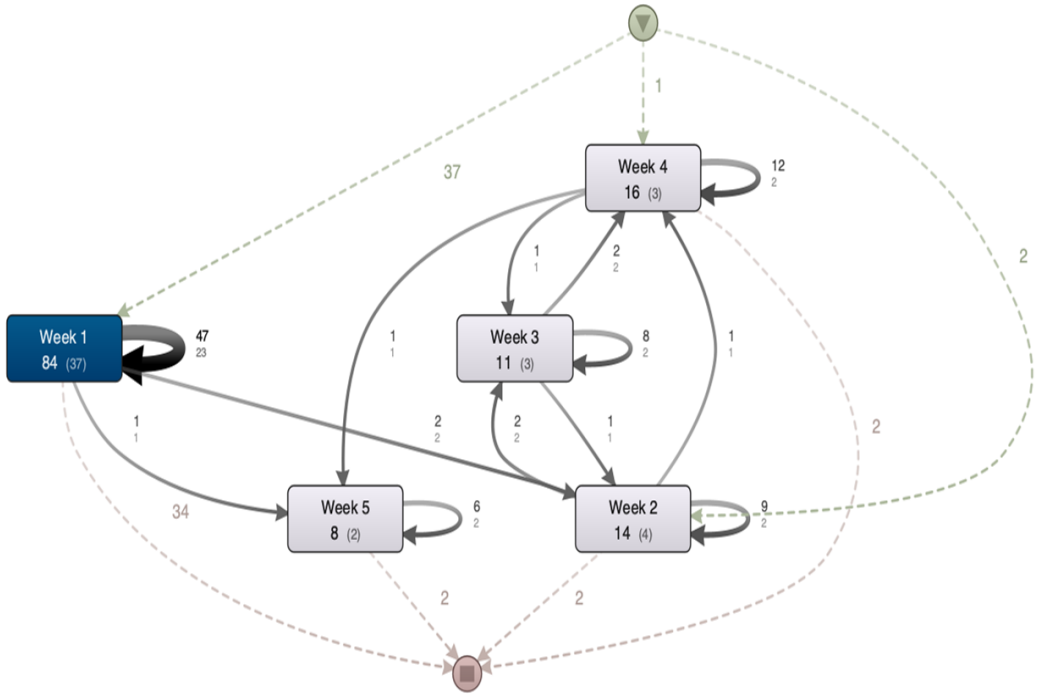


Figure 3b. Process map of SRL-Q prompt **non-viewers** completing course items on time in the SG MOOC

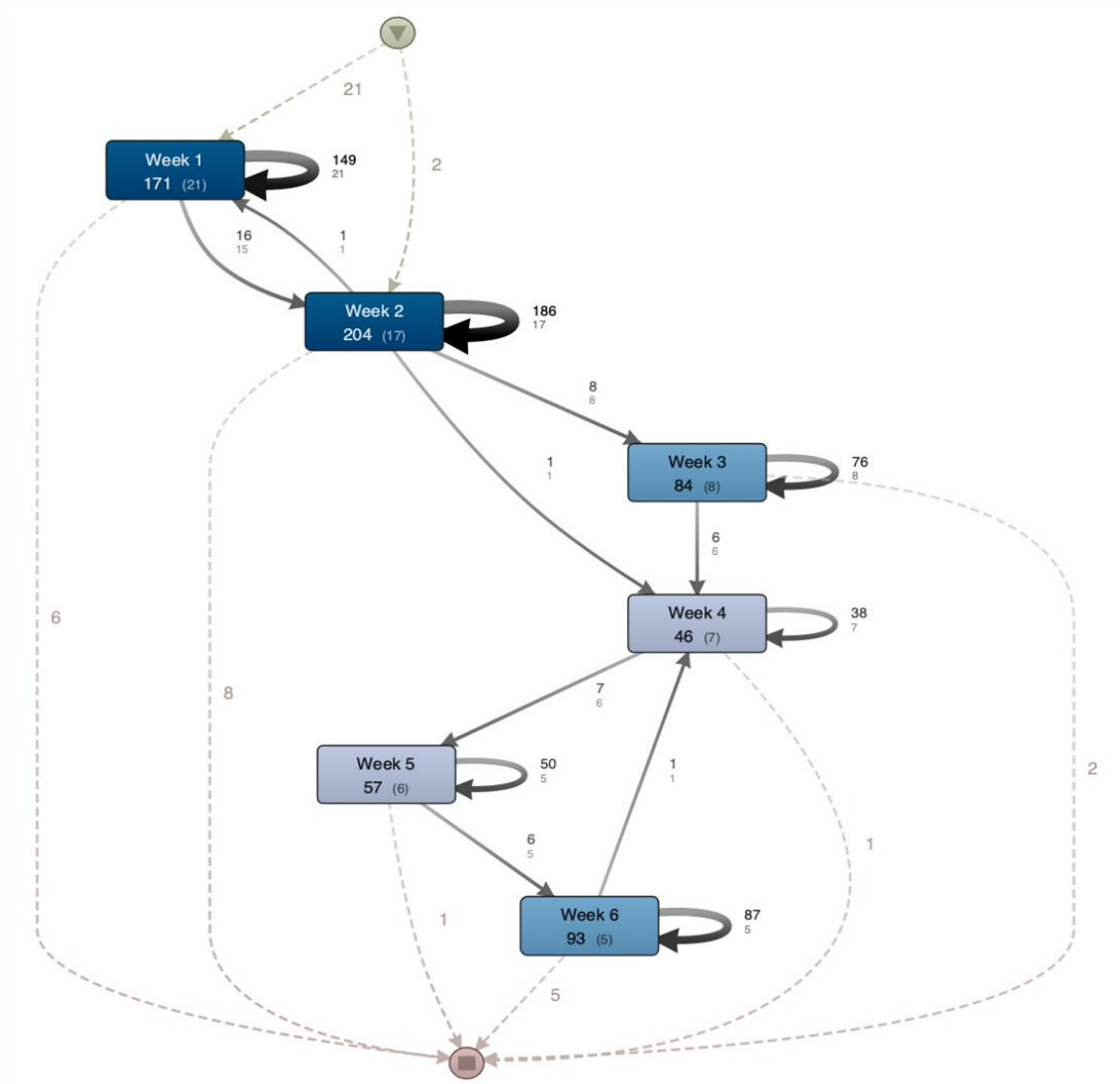
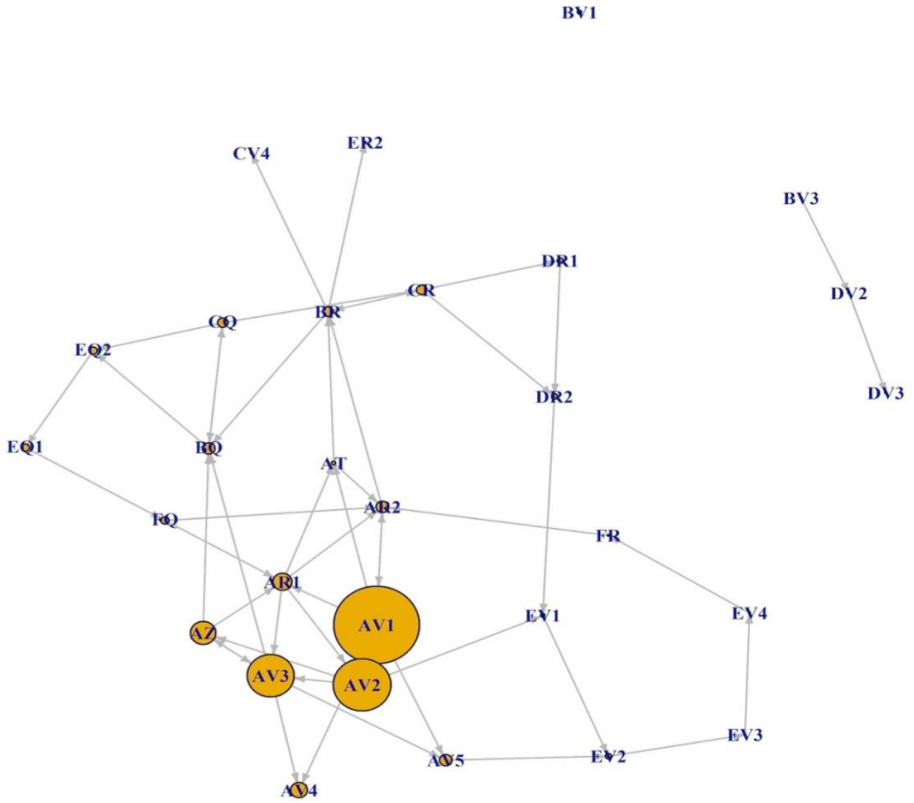


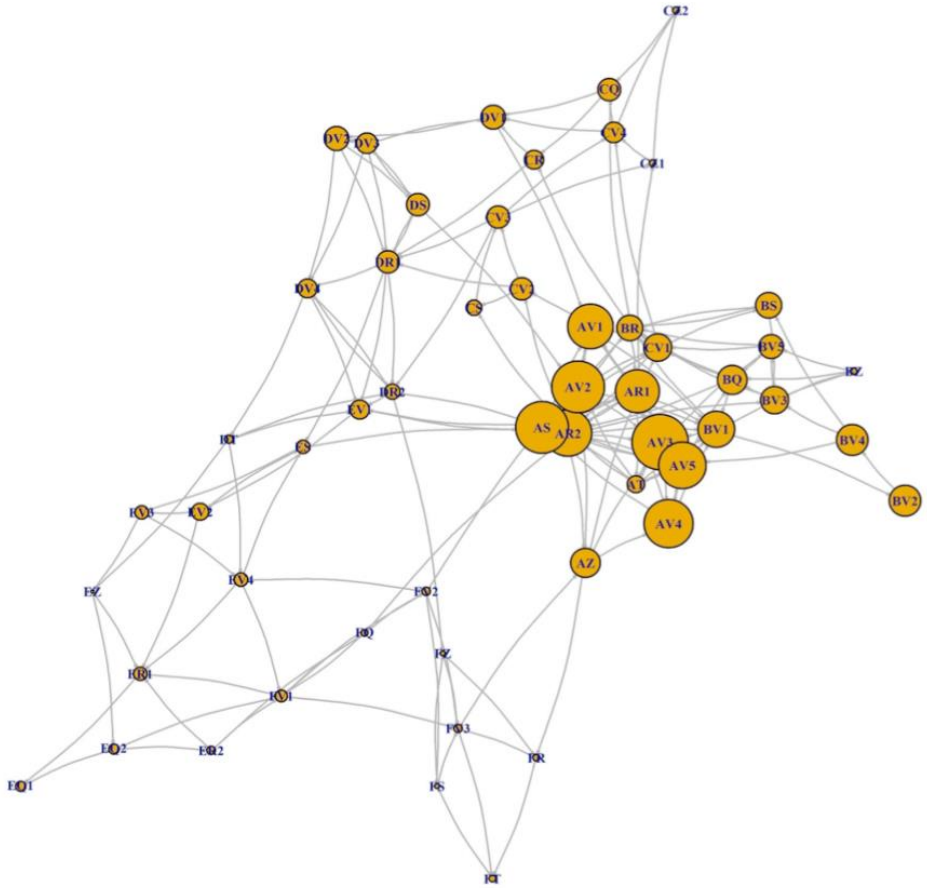
Figure 3c. Process map of SRL-Q prompt **viewers** completing course items on time in the SG MOOC

(from Wong et al., 2021)

Visualization of transitions from one course item to another



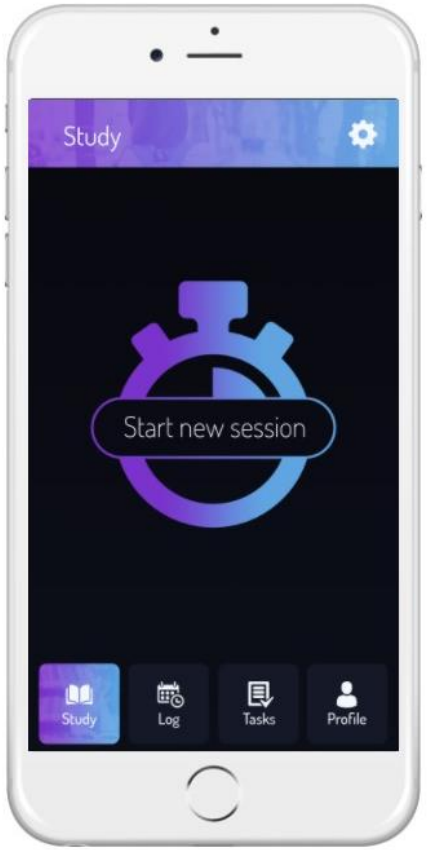
SRL-prompt non-viewers



SRL-prompt viewers

(from Wong et al., 2019)

The Ace your self study app



Study Strategies

Choose from 20+ study strategies.

Study Log

Keep track of your study sessions. Learn what strategies best suit you.

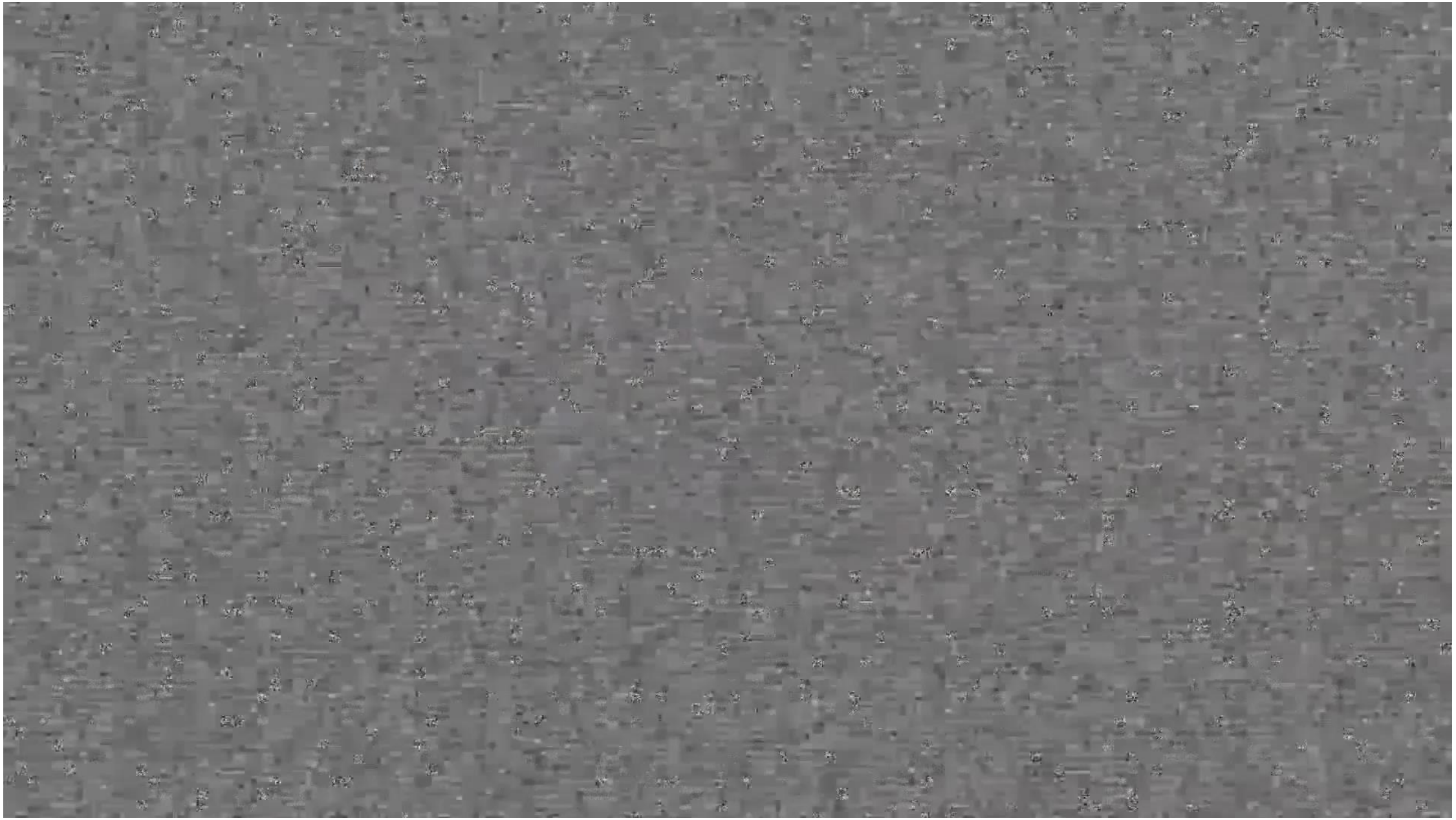
Study Sessions

Customize your own study session by selecting your study task, strategy, and goal.

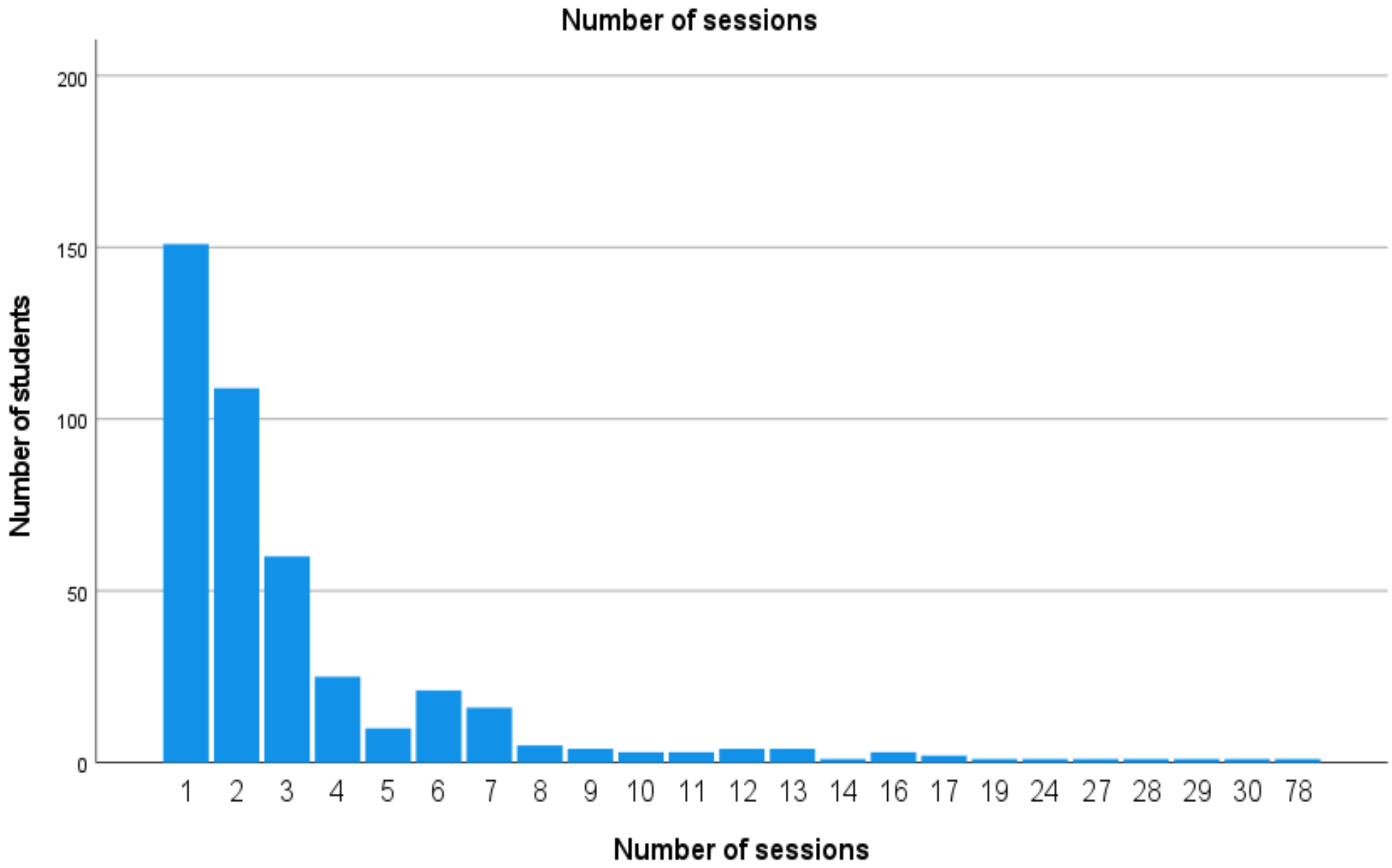
Easy to Use

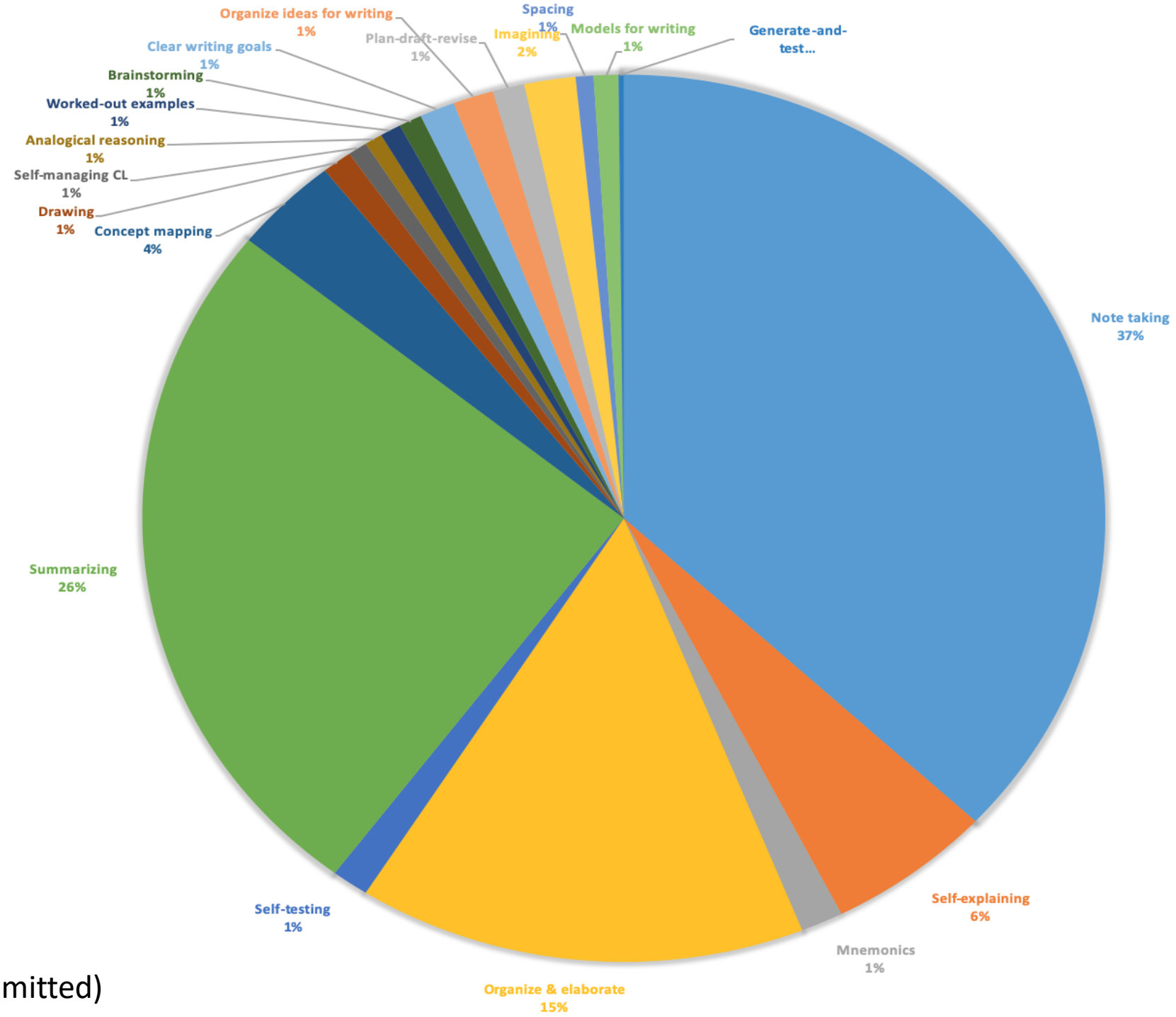
Start, setup and stop sessions as needed. Is a study strategy not working? Start up a new session.

Get the app



(from Baars et al., submitted)


Number of sessions
Number of students
200
150
100
50
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
16
17
19
24
27
28
29
30
78
Number of sessions



(from Baars et al., submitted)

Focus groups: using the app

“I only used the app twice because my study methods work just fine”

“It was not clear to me why I should use the app”

“If I would have bad grades, I would definitely use the app more”

“I only used it right before the exam”

Focus groups: using strategies

“If I would receive really bad grades allthough I study really hard, I would like to try new methods”

“The strategies in the app, are really time consuming. If there was no time pressure I would try new ones for sure”

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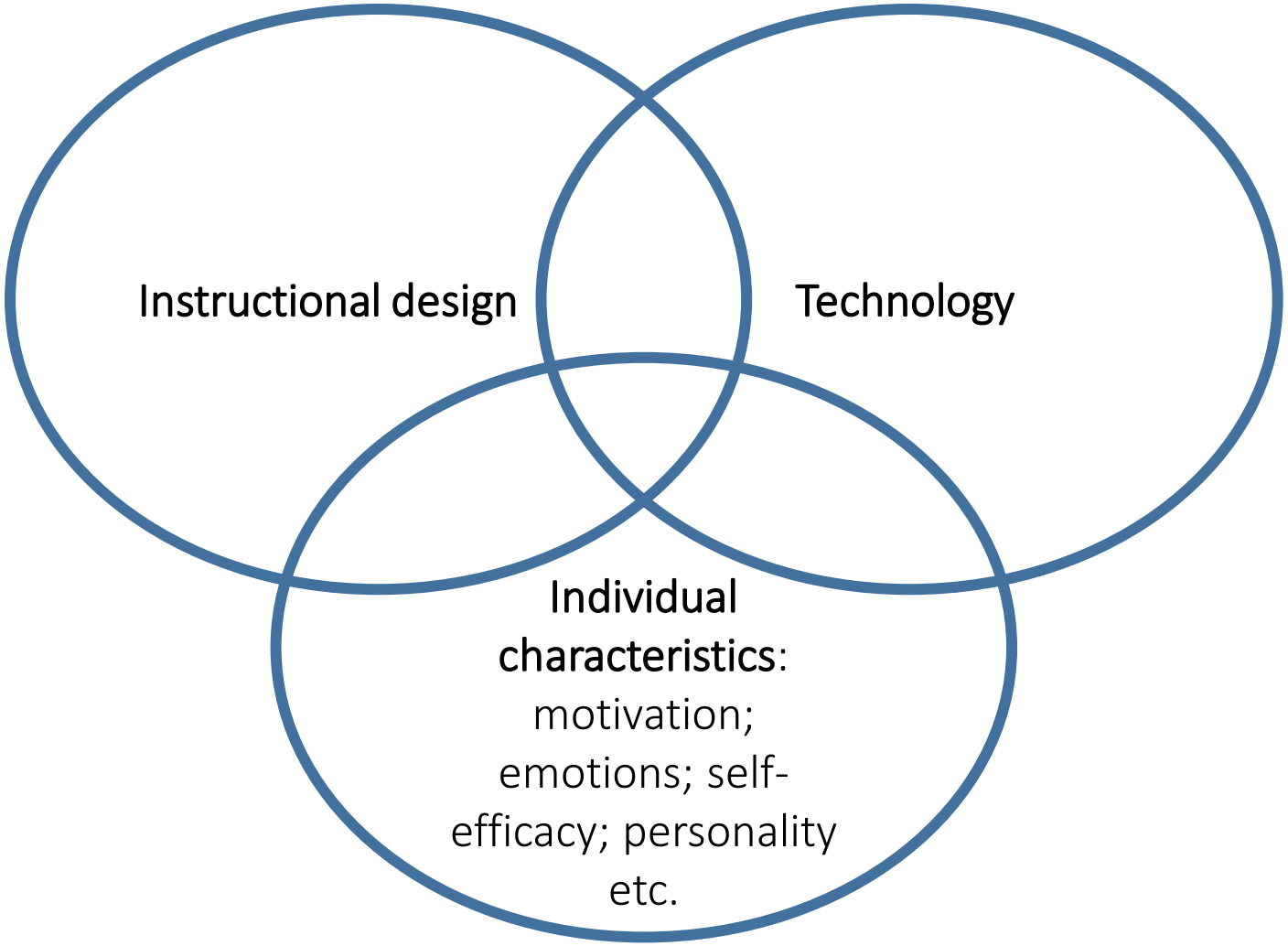
Instructional design, technology and individual characteristics meet



Thank you

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