User’s acceptance of an AI-based software to promote attention control
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Motivation
- Novel AI-based technologies can support everyday tasks related to work and study in many ways
- People often hesitate using such technologies due to unclear challenges and benefits
- Unified Theory of Acceptance and Use of Technology (UTAUT) explains factors contributing to technology use [1]
- Concrete example of AI-based software focUS for promoting attention control

Research questions
- Do expected performance gains, invested effort, and affinity for technology predict the intention of using focUS?
- Do demographic characteristics and affinity for technology exert moderating influences on the intention of using focUS?

Sample
- N = 71 participants (44 female, M_{age} = 34.20 years, SD_{age} = 14.42, range = 18-68 years, 65 living in Germany)
- 62% held a university degree, 42% were employed, 35% were range = 18 years, 68 years, 65 living in Germany)
- 52% had prior experience with software to support studying and/or working (e.g., timer, pomodoro apps, office software)
- Gender: 44 female, 27 male
- Age: 18-68 years
- Education: university degree, employment
- Affinity for technology: 20 items, 0-100 (average 57.30, SD = 23.42)

Design
- Criterion variable: intention of using focUS (rating question with slider)
- Predictor variables: UTAUT dimensions of performance and effort expectancy [1], affinity for technology [3]
- Moderating variables: gender, age, education, affinity for technology [3]

Procedure
- Pre-assessment of prior experiences with assistive software and affinity for technology [3]
- Presentation of introductory video clip about software focUS (duration of 08:32 min)
- Post-assessment of selected UTAUT dimensions [1], demographics, and intention of using focUS

Software focUS
- Metacognitive operations of goal setting, formative feedback, and summative feedback form core functionality (see Fig. 1)

Video clip
- Focused introduction of core functionality and goals of software focUS
- Concise language and structure ensures comprehensibility of scope of focUS for broad audience
- Mix of 2D animations and screencasts for neutral but appealing presentation (see Fig. 2)
- Storytelling approach includes virtual character Tina to capture and maintain recipients’ attention (see Fig. 3)

Results
- Multiple linear regression model to explain intention of use by predictors and moderating factors (R^2 = .694)
- Summary of effects (see Fig. 4) highlights performance expectancy as main predictor (t(59) = 3.15, β = 1.24, p = .03)
- Lack of significant effects of effort expectancy, affinity for technology, and moderating variables

Discussion
- Motivating users to work with focUS requires to highlight individual performance gains
- Experience with focUS limited to reception of video clip instead of actual use
- Lack of validated German translation of UTAUT (own translation with α = .86 for performance expectancy)
- Generally moderate to high affinity for technology in inspected sample
- Adding gamified mechanisms (e.g., focus achievement levels) could further increase benefits of using focUS [7]

References

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