

Feasibility And User Feedback On The Banking App, A Digital Tool For Assessing Financial Management In Early Cognitive Decline

Margarita Grammatikopoulou¹, Vasilis Alepopoulos¹, Giorgos Giannios¹, Stavros Zafeiropoulos², Magda Tsolaki², Spiros Nikolopoulos¹, Ioannis Kompatsiaris¹ and the ³PREDICTOM Consortium

¹Information Technologies Institute, Centre for Research and Technology Hellas, Thessaloniki, Greece, ²Greek Association of Alzheimer's Disease and Related Disorders (GAARDR), Thessaloniki, Greece, ³<https://www.predictom.eu/>



Learn more about
PREDICTOM



See all PREDICTOM
Posters at AAIC 2026

● Key findings

✓ Objective assessment of financial functioning

✓ Feasible in healthy older adults and MCI
✓ Completed independently by all participants

✓ Updated features retain discriminative performance
✓ Large-scale validation underway in PREDICTOM

● Introduction

- Managing finances constitutes an Instrumental Activity of Daily Living that often declines with cognitive impairment.
- The Banking App is a brief digital assessment that simulates a real-world money withdrawal task to objectively measure functional performance and differentiate between cognitive groups.

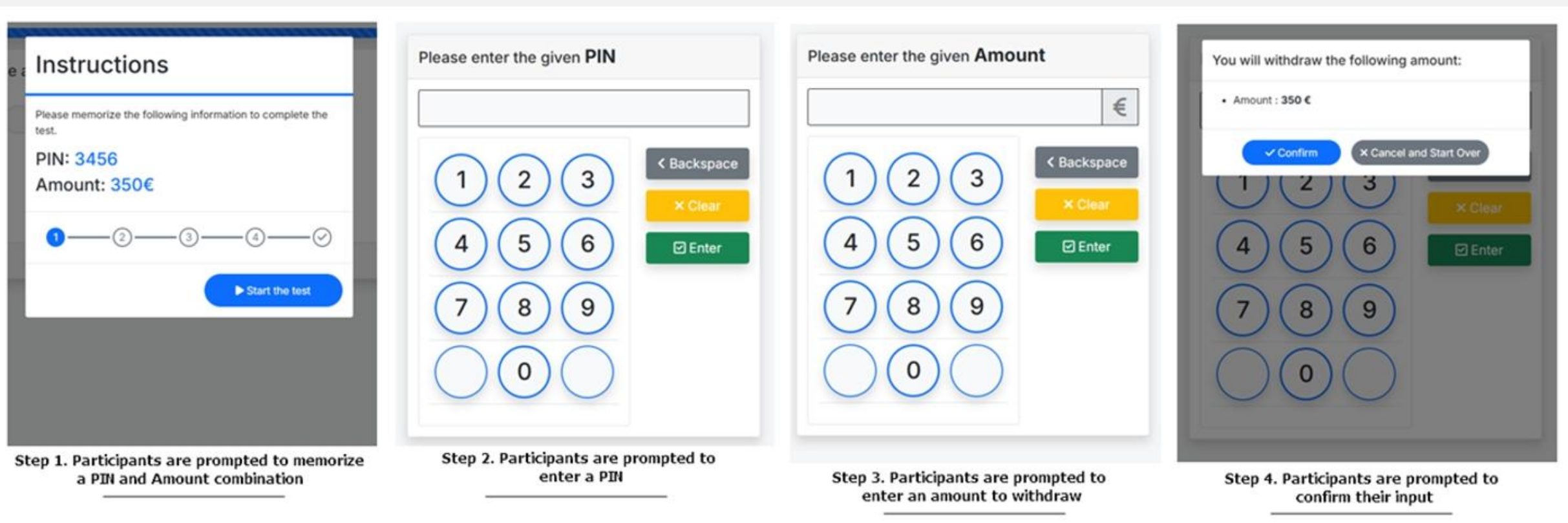


Figure 1. Banking App core task. Users are prompted to enter a PIN, an Amount and Confirm their inputs

- Within PREDICTOM, the app was refined by adding multiple difficulty levels while preserving the core task.

● Aims

- To evaluate the feasibility and user acceptability of the updated Banking App
- To assess whether the updated features maintain discrimination ability between cognitive groups before the app's deployment in the 4.000-participant PREDICTOM study

● Methods

- Participants:** 30 in total recruited through the GAARDR. 9 Healthy Controls (HC), 16 with Mild Cognitive Impairment (MCI), 5 with MCI and stress/depressive symptoms
- Protocol:** App-based assessment followed by feedback questionnaire
- Analysis:** Participant feedback (demographics, Likert-scale, open-ended responses) & App performance: One-way ANOVA and between-group t-tests

● Results

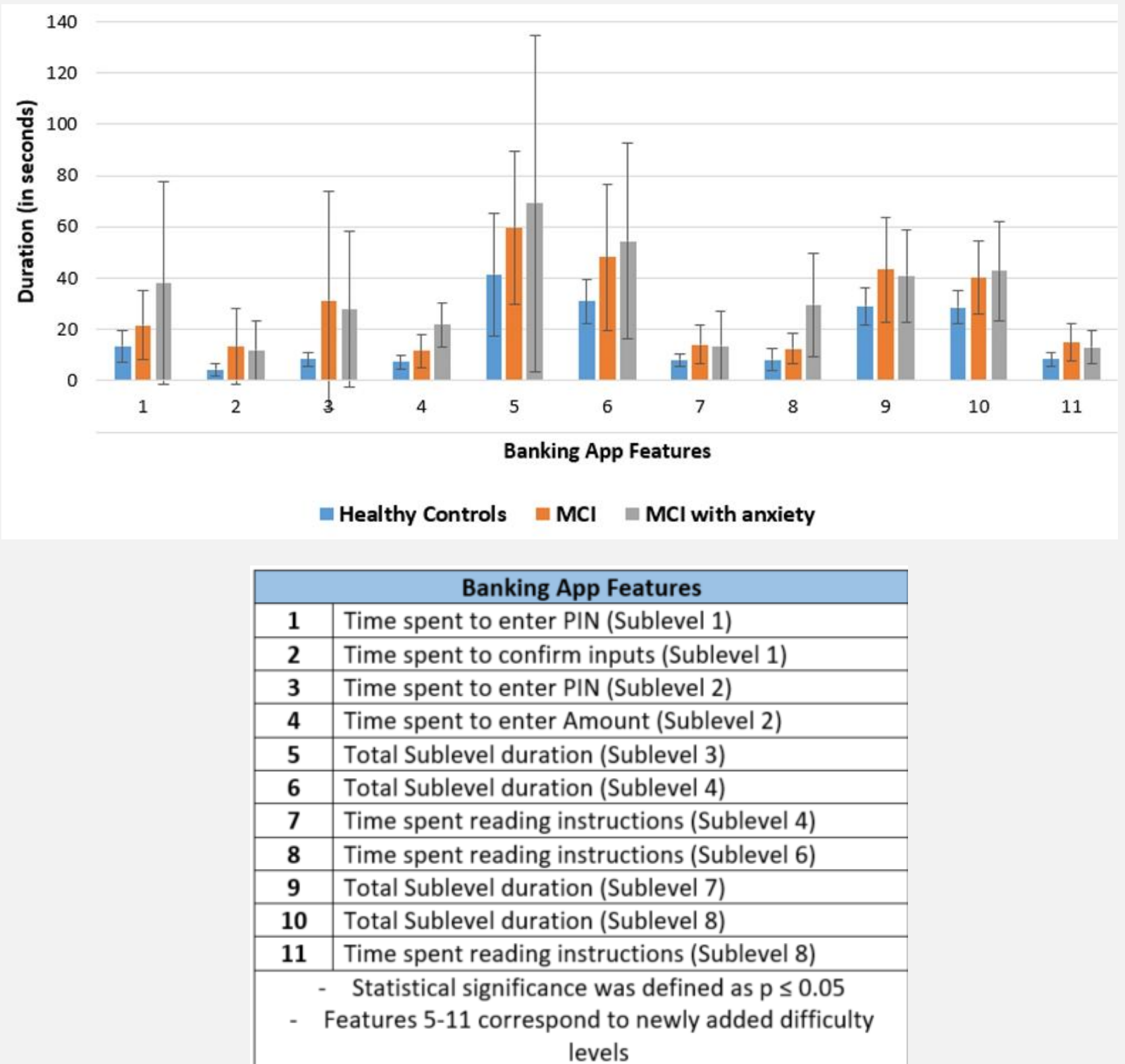
The Banking App was well accepted, with usability highest in HC and lower in participants with MCI or MCI with stress/depression. Importantly, all participants completed the test independently. Welch's one-way ANOVA showed significant group differences for most app features ($p \leq 0.05$), and pairwise t-tests indicated longer task completion times with greater cognitive impairment and significant differences across both established and new features

Table 1. Participant demographics and questionnaire feedback per group

	Healthy Controls	MCI	MCI with stress and depression
Number of participants	9	16	5
Age	74.8 (4.8)	77.9 (10.7)	72.2 (6.5)
Female:Male	9:0	11:5	3:2
Overall experience with the app	4.8 (0.5)	3.8 (1.1)	3.4 (1.1)
App's visual design	4.8 (0.5)	4.1 (1.1)	4 (0.7)
Navigation through the app	4.3 (1.0)	3.6 (1.4)	3.2 (1.5)
Information provided on landing page	4.5 (1)	3.9 (1.2)	3.4 (1.7)
Instructions provided during test	4.8 (0.5)	4.3 (0.9)	3.8 (1.1)
Ease of completing Level 1 - Standard	4.5 (0.6)	3.6 (1.3)	3 (1.6)
Ease of completing Level 2 - Shuffle	4.5 (0.6)	3.3 (1.3)	3 (1.6)
Ease of completing Level 3 - Countdown	4.0 (0.8)	3.8 (1.1)	2.6 (1.1)
Ease of completing Level 4 - Combination	4.3 (1.0)	3.4 (1.3)	2.6 (1.1)
Clarity of differences between modules	4.8 (0.5)	4.0 (1.3)	3.6 (0.9)
Ease of understanding the progress bar	4.5 (1.0)	3.6 (1.3)	3.2 (1.5)
Usefulness of the progress bar	4.5 (1.0)	3.6 (1.5)	2.4 (1.3)
Perceived resemblance of test to an ATM	4.5 (1.0)	4.0 (1.2)	3.8 (0.8)
Suggestions for improvements	No comments	Increase time during countdown module	Change colours for prompting PIN and Amount

All questionnaire items were rated on a 5-point Likert scale, with higher scores indicating more positive evaluations of the app and its components (e.g., more pleasant or easier to use)

Figure 2. Visualization of the Banking App features and metrics per group



● Conclusion

The updated Banking App is a feasible, user-friendly tool usable by healthy older adults and individuals with MCI, with the new features effectively discriminating between groups. Ongoing analyses within PREDICTOM will investigate combinations of the Banking App features to further improve identification of individuals at higher and lower risk of developing dementia.

