

# Raising awareness of the use of touchscreen tablets among people with dementia in day care centre

Jean-Bernard Mabire<sup>1</sup>, Klara Bize<sup>1,2</sup>, Florian Compere<sup>1,3</sup>, Jean-Pierre Aquino<sup>1</sup>, Kevin Charras<sup>1</sup>

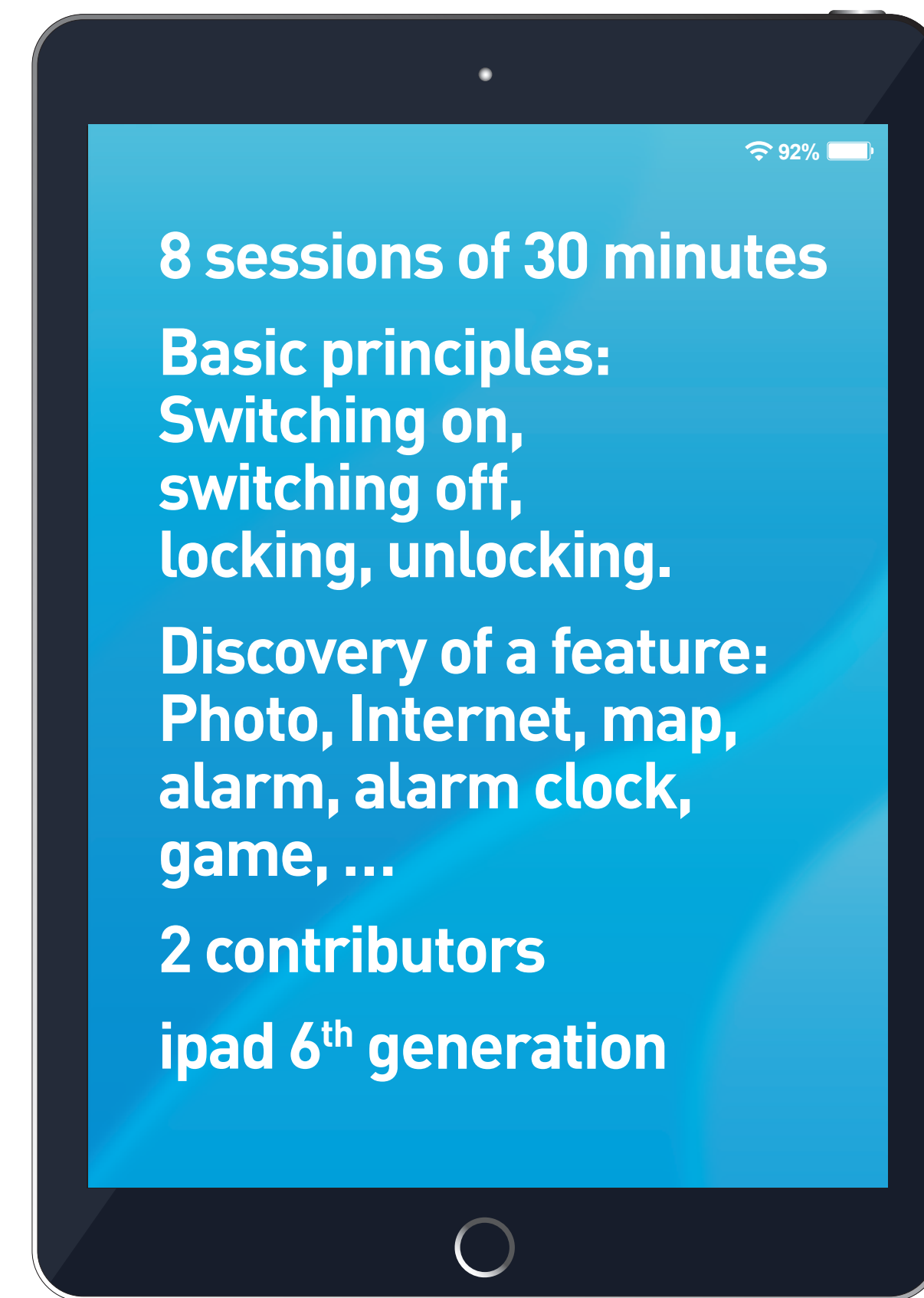
1. Fondation Médéric Alzheimer, Paris, France; 2. Psychology master student - Université Paris 8 Vincennes Saint-Denis, Saint-Denis, France; 3. Psychology master student - Université Paris Nanterre, Nanterre, France

## Introduction

The objective of this study is to evaluate the learning and satisfaction of the use of touchscreen tablets by people with dementia.

## Methods

2 day care centres  
27 participants  
(21 women and 6 men)  
Mean age = 82.70 (+/- 6.43)  
Mini Mental State Examination (MMSE)  
→ Mean score = 19.04 (+/- 5.48)  
Disability Assessment of Dementia (DAD)  
→ Mean score = 65.17 (+/- 25.77)



**Individual learning:** one tablet per participant (3 groups; n=16)

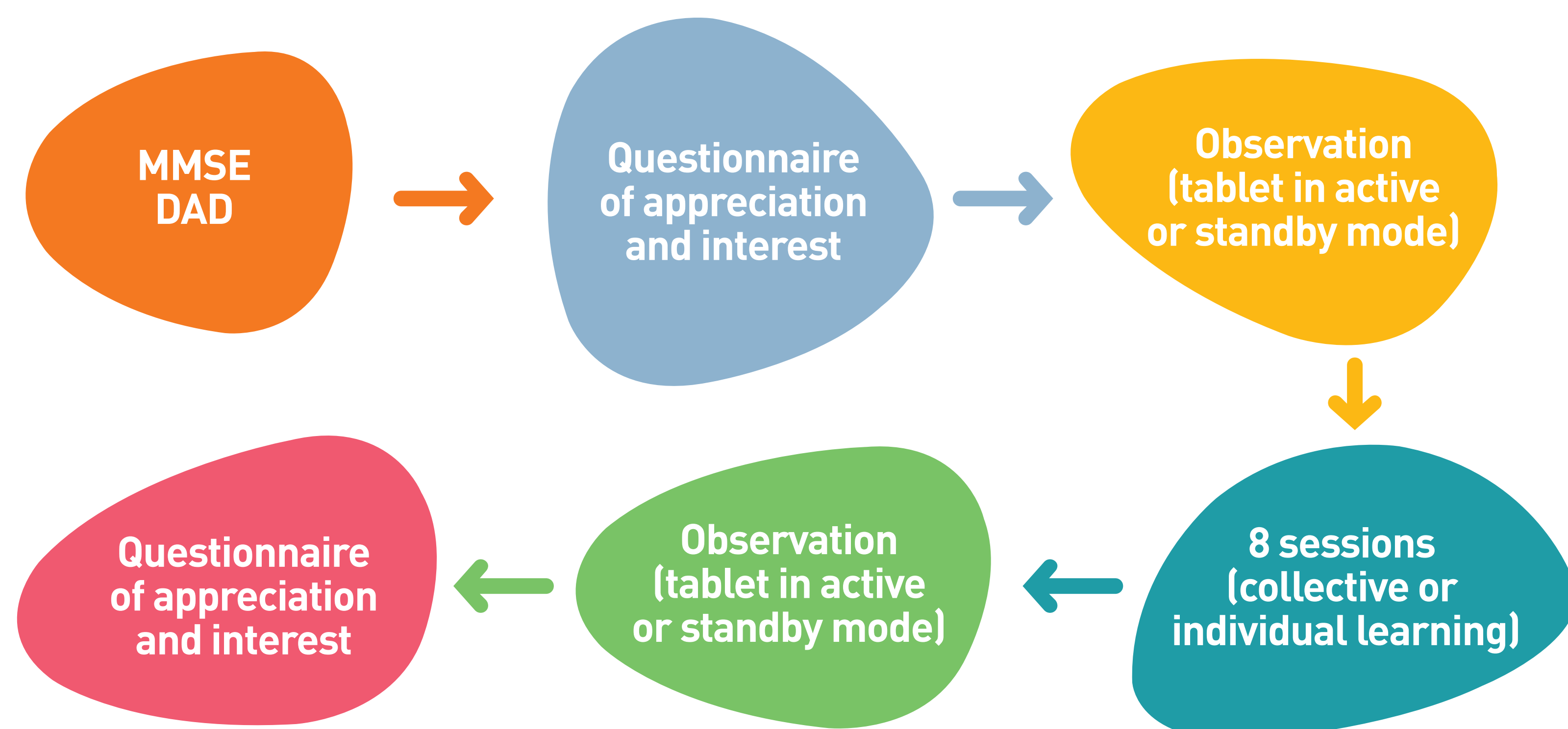
**Collective learning:** one tablet for 2 participants (2 groups; n=11)

**Before and after the 8 sessions:**

Questionnaire to assess the physical and ergonomic characteristics of the tablet, potential interests and ease of use.

**At each session :**

- Achievement score;
- User satisfaction: interest, ease, pleasure, competence and anxiety



## Results

The presentation mode (standby VS active) of the tablet did not influence its spontaneous use;

The quality of the display and the interest of use were evaluated significantly better after the 8 learning sessions;

Interest and pleasure of use were rated as good after the sessions, ease and competence were rated as average, and anxiety was almost nil;

Individual learning would promote better learning of basic actions and better use of the tablet than collective learning;

Learning of the basic principles was possible from the first sessions, but maintenance over time is fragile;

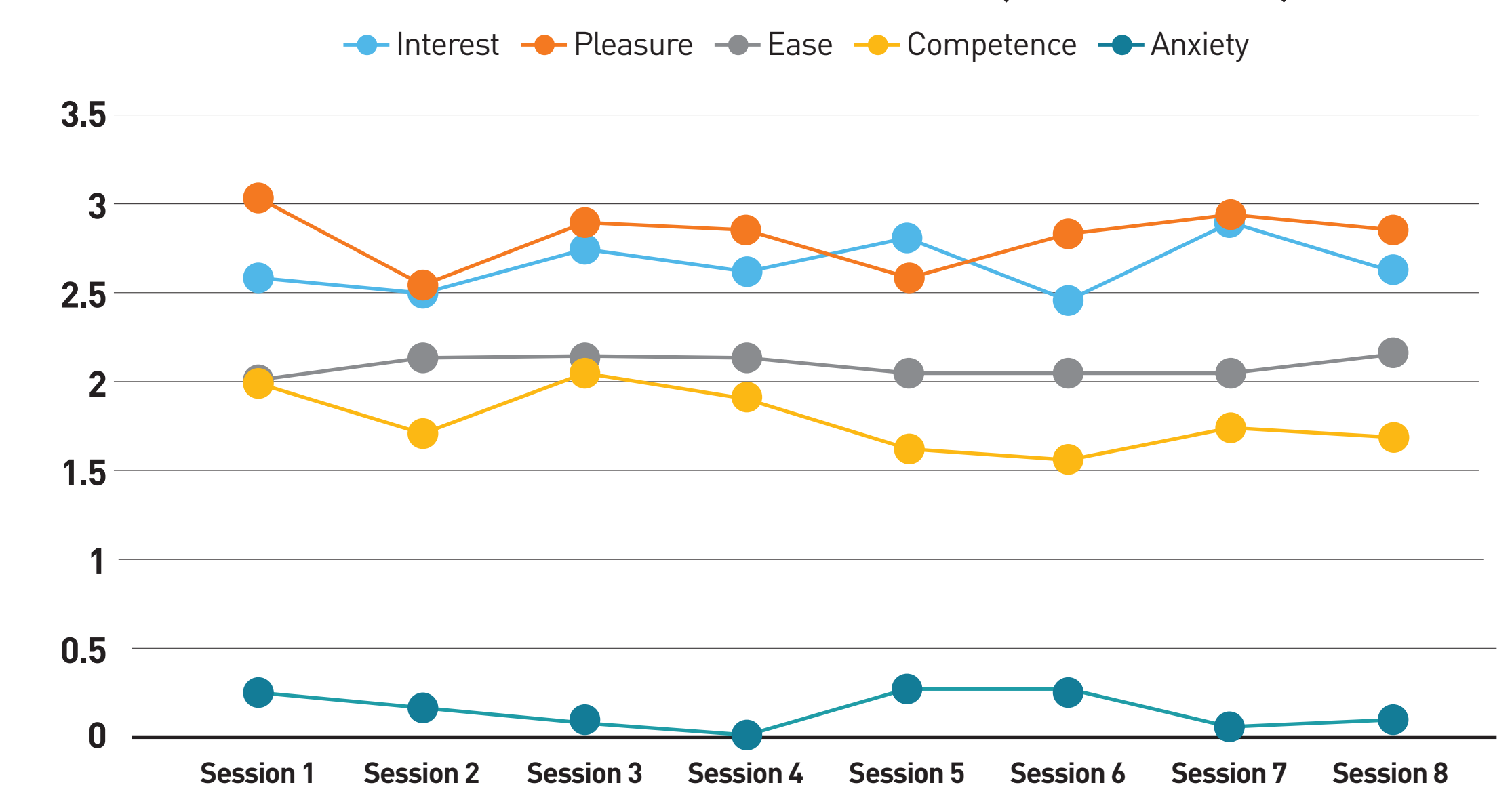
Difficulties encountered by the participants concerned tactile sensitivity, forgetting the steps to be taken, going backwards and managing notifications;

Positive and significant correlations were observed between the score of achievement and the MMSE and the DAD scores for each learning mode.

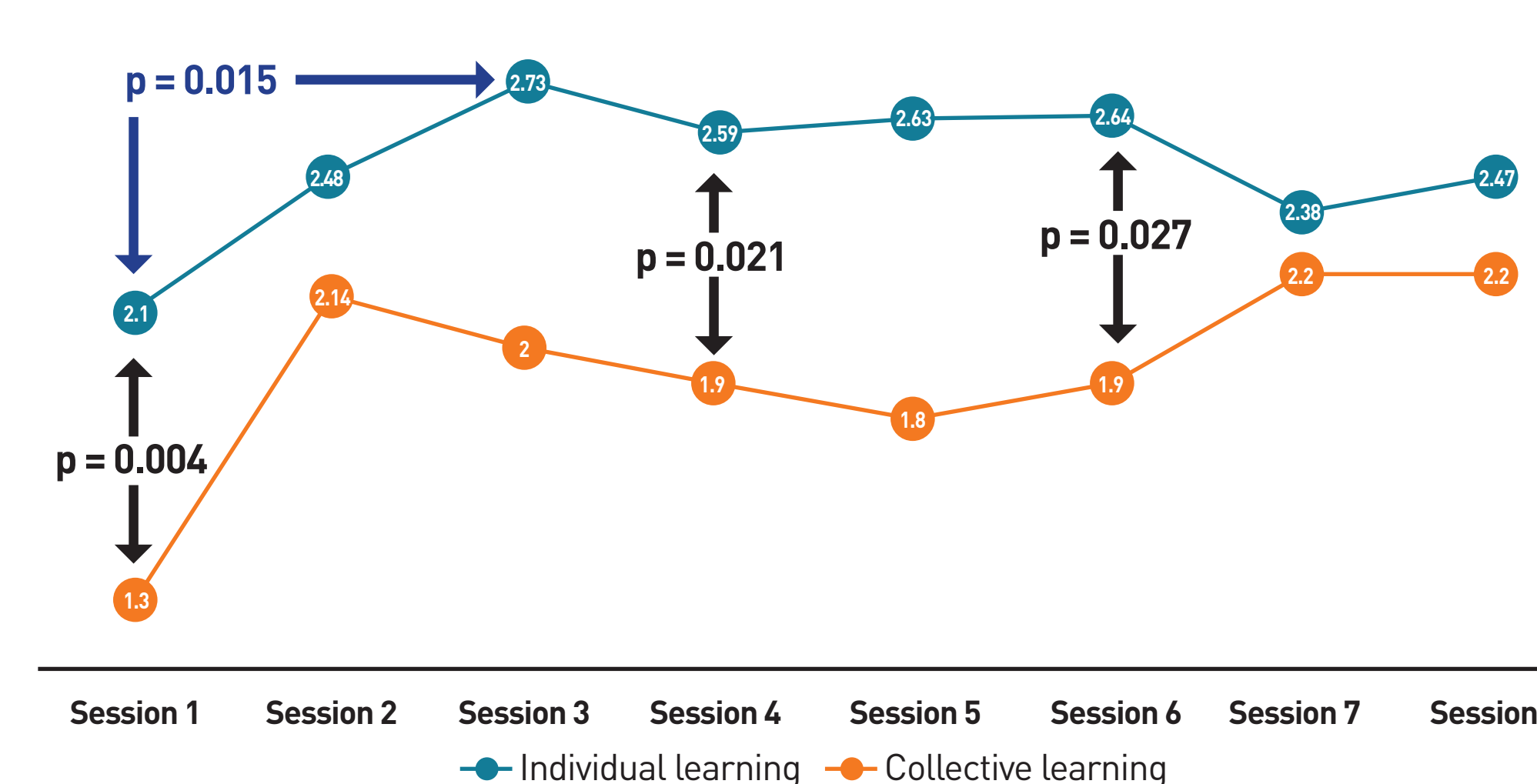
Appreciation of the characteristics of the tablet and its use before and after the 8 sessions (score out of 4)

	Aesthetic aspect	Weight	Screen size	Display quality	Handling	Interest of use	Ease of use
Before	2.81	2.72	3	2.81	2.85	1.22	2.36
After	3.04	2.81	3.04	3.12	3.04	1.95	2.15
p	0.17	0.53	0.66	<b>0.03</b>	0.42	<b>0.02</b>	0.38

Use satisfaction after each session (score out of 4)



Achievement score at each session according to learning mode (score out of 3)



Correlations between achievement score, number of performed sessions, MMSE and DAD scores according to the learning mode

	Achievement score Collective learning		Achievement score Individual learning	
	Correlation	p	Correlation	p
Number of sessions	0.13	0.29	0.08	0.37
MMSE	0.32	<b>0.013</b>	0.51	<b>0.0000</b>
DAD	0.55	<b>0.0002</b>	0.55	<b>0.0000</b>

## Conclusion

Participants enjoyed the learning sessions but did not express significant interest in using the tablet on a daily basis. Offering more frequent sessions and a home relay could encourage more independent use. Further studies are needed to better understand the personal interests of people with dementia in order to adapt learning and use to everyday life; because using a touchscreen tablet is not yet automatic and considered practical in daily life.