SOCIABLE DELIVERABLE D7.4b
"Final Evaluation from Elderly-Users"

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0.1	Stelios Pantelopoulos, Chiara Zaccarelli	SLG	01/10/2012	Structure, Table of Contents, Introduction
0.2	Roberta Annichiarico, Francesco Barban	FSL	29/10/2012	Analysis of the questionnaires
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1.0	Stelios Pantelopoulos	SLG	14/11/2012	Quality Control and Final Version

Abstract

This deliverable is part of the final evaluation cycle of the SOCIABLE platform and services. It emphasizes on the evaluation of the SOCIABLE platform from various stakeholders including the participating elderly users, caregivers, family members, as well as medical experts. Hence, it provides the perspectives of different participants in the SOCIABLE cognitive training and social activation paradigm, based on their participation in the first half of the SOCIABLE pilot operations. The evaluation process was mainly based on a set of questionnaires, which have been specified as part of the SOCIABLE evaluation framework in D7.1. Overall the deliverable reports and justifies the fact that all stakeholders have a positive opinion on their SOCIABLE experience. At the same time some more specific conclusions about the opinions of specific stakeholders and pilot sites are also drawn. The deliverable extends and enhances the respective evaluation results of the interim evaluation cycle, which have been reported in an earlier version/release of this deliverable (D7.4a).

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Executive Summary

The main goal of the SOCIABLE project is to pilot and evaluate a novel ICT based model for cognitive training and social activation of the elderly. This model is based on the use of a novel multi-touch surface computing platform (conveniently called SOCIABLE platform) as a vehicle for ergonomic, motivating and pleasant environment for cognitive training activities. Following the deployment of the SOCIABLE platform at the seven pilot sites of the project, pilot operations have commenced and are also evaluated. Stakeholders' feedback (notably feedback from the participating elderly users) is among the most critical elements of the SOCIABLE evaluation framework. The present deliverable is devoted to the presentation of the analysis of feedback collected from the main stakeholders of the SOCIABLE platform including:

- Elderly users participating in SOCIABLE-based cognitive training sessions, according to the SOCIABLE study design.
- Elderly users that have used the SOCIABLE platform at least once, even though they have not participated in a SOCIABLE programme.
- Medical Experts participating in the SOCIABLE project through supervising sessions in the scope of the SOCIABLE study.
- Caregivers supporting patients that participate in the SOCIABLE study, notably patients suffering from Mild Cognitive Impairment (MCI) and/or the Alzheimer's disease.

The feedback of the above stakeholders has been collected using questionnaires, which are presented in the scope of D7.1 of the project. The questionnaires were completed by stakeholders across all seven pilot sites of the project. Each question was studied against how it is influenced by demographic parameters. In particular, a binary logistic regression analysis was performed with each question as dependent variable and age, education, country and pathology as predictor variables. Moreover, the data of the users' satisfaction questionnaire were recorded according to median value for each question (corresponding to 50th percentile).

The analysis of the questionnaires confirmed the findings of the interim evaluation cycle in terms of the positive effects of the SOCIABLE platform and associated cognitive training paradigm on all stakeholders including elderly, caregivers and health professionals. It was found that SOCIABLE had a greater positive effect on the mental ability of Spanish and Greek users, possibly because the pilot sites that these countries (i.e. SPC, PREVI, HYGEIA) involved more health elderly comparing to the Italian and the Norwegian sites. At the same time, it was observed that MCI users experienced more intensively the positive effects comparing to other SOCIABLE groups. Furthermore, it was found that SOCIABLE made elderly users more comfortable with computers and ICT, thereby leading the elderly to increase the total time they use the computer(s).

Overall, the present deliverable constitutes an integral component of the assessment/evaluation of the SOCIABLE platform and services, which complement

the evaluation results that are outlined in deliverables D7.2 (dealing with clinical evaluation) and D7.3 (dealing with technical, technological and techno-economic evaluation).

1. Introduction

SOCIABLE's workpackage 7 is devoted to the evaluation of the project's results, with a main focus on the evaluation of the SOCIABLE platform, ICT-based cognitive training services and pilot operations. The evaluation activities of the project have been organized on the basis of the SOCIABLE evaluation framework, which covers multiple aspects including clinical/scientific evaluation, technical/technological evaluations and evaluation from end-users (including elderly users). Likewise, the project is producing three distinct evaluation deliverables, devoted to the above aspects respectively.

The present deliverable focuses on the evaluation of the SOCIABLE approach to cognitive training and social activation from its users. The title of the deliverable indicates already that it will report on evaluation feedback received by elderly users participating in the pilot. However, the scope of the deliverable has been enlarged in order to include the analysis of feedback from other stakeholders of the SOCIABLE approach. In particular, the deliverable reports on feedback received from medical experts, caregivers, health professionals and family members that were either directly or indirectly engaged in SOCIABLE pilot sessions.

The rationale behind this scope enlargement is manifold:
- First the reception of feedback from medical experts and health professionals is important, since they are supervising the SOCIABLE sessions. Hence, they can provide insights on the cognitive training and its effects, which can be hardly elicited by elderly users.
- Secondly, the same time, medical experts and health professionals are users of the SOCIABLE platform themselves, given that they use the back-office modules for managing assessment scores and producing relevant reports. Thus, their feedback on the SOCIABLE platform aspects that are most relevant to health professionals is very important. Such feedback is not analyzed in any other deliverable and hence it has been included in the present one.
- Thirdly, caregivers and family members are also important stakeholders (and indirect beneficiaries) of the SOCIABLE approach. Their views on the SOCIABLE approach and its benefits to the elderly they support can therefore provide valuable insights for the further improvement/advancement of the SOCIABLE approach.
- Fourthly, as some of the elderly participants suffer from cognitive or functional problems (e.g., this is the case with SOCIABLE Group B (MCI) and Group C (Mild AD) elderly) it is important to complement their feedback with the opinion of their caregivers, family members and supervising health professionals.

Therefore the present deliverable collects and analyzes feedback from all the above stakeholders. Note that within the different categories and types of stakeholders, a distinction between project members and external stakeholders is made. For example, medical experts feedback has been collected from project members supervising sessions, but also from external medical experts that have only slightly

seen or experienced the SOCIABLE platform and overall approach (e.g., as part of their participation in SOCIABLE open days or during their visits to care centers where SOCIABLE has been deployed). Feedback collection and analysis for all stakeholders has been based on appropriate questionnaires, which have been designed and described as part of deliverable D7.1.

The present deliverable corresponds to the second and final evaluation cycle of the SOCIABLE project, which extends the results published/reported as part of the first (interim) evaluation cycle. Note that as part of the document we summarize the findings of the interim evaluation cycle, while also providing a comparative assessment between the results of the interim and the final cycles.

The deliverable is structured as follows: Section 2 which follows this introductory section outlines briefly the methodology and the organization of the interim evaluation, with emphasis on the questionnaires involved in the process and how they were distributed and filled-in by different participants. Section 3 summarized the main findings of the interim evaluation cycle. Section 4 is devoted to the analysis of questionnaires, including the presentation of key findings. The main conclusions of this evaluation cycle are reported in the concluding section (Section 5), which includes the comparative assessment between the results of the interim and of the final cycle.

2. Summary of the Evaluation Methodology

2.1 Methodology of Receiving Stakeholders' Feedback

A set of questionnaires have been created as part of the SOCIABLE evaluation framework (presented in D7.1) in order to solicit and collect feedback from the various stakeholders of the SOCIABLE cognitive training model. The questionnaires are included as an appendix in deliverable D7.1. Different questionnaires were administered to the different stakeholders, in order to elicit their perspectives, as outlined in the following paragraphs.

2.1.1 (Elderly) Users' Feedback – Elderly User Satisfaction

The questionnaires administered to the elderly that participate in the SOCIABLE cognitive training programmes, focused on the following aspects:
- The ease of use of the SOCIABLE platform, as well as of the cognitive games and the book-of-life.
- Whether the games were pleasant and interesting.
- The extent to which SOCIABLE has helped the elderly (according to their perception) in general.
- The extent to which SOCIABLE has helped the elderly (according to their perception) in terms of their mental abilities (such as memory, attention, orientation etc.).
- The extent to which SOCIABLE has helped them in improving their mood and/or their social interactions.
- Whether SOCIABLE is worth recommending to other elderly people.
- The overall level of their satisfaction from the participation in a SOCIABLE programme.
- Their willingness to pay for using SOCIABLE.

The interim evaluation cycle was intended to collect and analyze user satisfaction questionnaires from all the elderly that participated in the first two quarters of the SOCIABLE pilot operations. Due to some delays in the progress of pilot operations in some pilot sites, the total number of user satisfaction questionnaires was slightly less than the 50% of the elderly users that will finally participate in the SOCIABLE study.

2.1.2 «Butterfly» (Elderly) Users' Feedback

In addition to users participating in the SOCIABLE clinical study, feedback was also solicited by other elderly users that used the SOCIABLE platform at least once, without engaging in a SOCIABLE programme according to the SOCIABLE study design. Such elderly included (in most cases) individuals that had the chance to use SOCIABLE in the scope of information days or presentations, as well as during the day-to-day operations of the SOCIABLE pilot sites (i.e. individuals at the pilot sites

who did not participate in SOCIABLE). Due to their looser relationship to the SOCIABLE project (and the details of the SOCIABLE services), a lighter questionnaire was administered to the «Butterfly» users. The aim was to elicit information about:

- The ease of use of the platform.
- Their interest on SOCIABLE in general.
- Whether they thought that the games were pleasant and motivating.
- Their willingness against paying for using SOCIABLE.

In terms of specific numbers of «butterfly» users contributing to the evaluation, the aim was to solicit feedback from 10-15 elderly from each pilot site. Note that this number concerns the interim evaluation cycle, and is expected to be doubled as part of the final evaluation cycle. In practice, the different pilot sites contributed varying numbers of questionnaires from «butterfly» users, depending on their capacity to involve such users, as well as on depending the occasions/opportunities that they had to solicit such feedback. Some pilot sites will provide the full set of butterfly users' questionnaires in the scope of the final evaluation.

2.1.3 Feedback from Caregivers

Caregivers play a significant role in the SOCIABLE assessment, especially in the case of MCI or mild AD patients (with a caregiver), which cannot directly provide a credible opinion on their participation in SOCIABLE. Thus, SOCIABLE has also requested the feedback of caregivers that were indirectly involved in the SOCIABLE cognitive training paradigm. Relevant feedback was solicited on the following points:

- Their own overall impression and opinion about SOCIABLE.
- Their understanding of the impact of SOCIABLE on the elderly (e.g., relative) that they support. This impact was assessed in terms of how pleasant SOCIABLE was for the elderly, but also on how helpful SOCIABLE was for the individual.
- Their assessment of SOCIABLE's impact on the elderly mood, mental skills and social skills, judging from the individual(s) that they supervise.
- Whether they would recommend participation in SOCIABLE programmes to other elderly.
- SOCIABLE's impact of their own stress level.
- Their willingness to pay for a SOCIABLE-like service.

As already outlined, there was not a specific target for the caregivers' questionnaires to be received and analyzed at each site, given that this depended on the number and type of elderly participants in the SOCIABLE site.

2.1.4 Feedback from Medical Experts

As part of the stakeholders' evaluation, feedback from medical experts was also solicited, including medical experts supervising SOCIABLE sessions, but also medical experts that are not directly involved in the SOCIABLE project. The main elements of medical experts' feedback include:

- The ease of use of the SOCIABLE platform, as well as of the cognitive games and the book-of-life.
- Whether the games were pleasant and interesting for the elderly.
- The extent to which SOCIABLE has helped the elderly (according to their perception) in general.
- The extent to which SOCIABLE has helped the elderly (according to their perception) in terms of their mental abilities (such as memory, attention, orientation etc.).
- The extent to which SOCIABLE has helped their patients to improve their mood and/or their social interactions.
- The extent to which SOCIABLE has facilitated their own work, including an assessment of how SOCIABLE has helped them to acquaint with new technologies.
- Whether SOCIABLE is useful for the health professionals and medical experts, in terms of their current and future activities.
- Their overall level of satisfaction with SOCIABLE.
- Whether they think that SOCIABLE could be offered as a paid service to the elderly/patients.
- Whether they would pay in order to receive SOCIABLE-based or SOCIABLE-related training.

Feedback from 2-4 medical experts was intended/meant to be received by each one of the pilot sites for the interim evaluation.

2.2 Collection and Analysis of Questionnaires

Prior to analyzing the questionnaires (as illustrated in the following section), a disciplined process was employed to collect the questionnaires from the various sites. We collected data from all pilot sites, but only data from subjects that completed the training were entered in the analysis.

Questionnaire	Number of questionnaire
Elderly Users Satisfaction	348
Level o expertise in ICT	348
«Butterfly Users»	156
Caregivers	124
Medical Expert	32
External Medical Expert	30

Table 1: Number of Questionnaires Provided and Analyzed (All SOCIABLE Sites)

3. Main Findings from the Interim Evaluation Cycle (May2011-December 2011)

As part of the interim evaluation cycle, the consortium analyzed results from various questionnaires that were administered to: (a) Elderly users that participated in the SOCIABLE pilot operations according to the SOCIABLE clinical protocol, (b) Elderly users that used the SOCIABLE platform at least once, even though they did not participate in sessions organized according to the SOCIABLE clinical protocol, (c) Medical Experts supervising SOCIABLE sessions thereby participating in the pilot operations and (d) Caregivers and family members linked to SOCIABLE elderly users. On the basis of the above questionnaires the project managed to capture the various stakeholder's perspectives in terms of their opinion about the overall value of SOCIABLE, as well as operational aspects of the SOCIABLE paradigm. The opinions of the stakeholders complemented other evaluation aspects that have been used in the scope of the SOCIABLE platform and services evaluation, such as the clinical evaluation of the SOCIABLE platform/services based on the cognitive, functional and affective assessment of the participants.

The analysis of results revealed a very positive evaluation of the SOCIABLE platform and services in terms of several aspects. Most elderly participants (to the SOCIABLE formal pilot operations) confirmed that the SOCIABLE platform is ease to learn and use, while also being pleasant and acceptable by end users. Furthermore, they perceived an improvement in their mood and cognitive state. At the same time, «butterfly users» (i.e. elderly that experienced SOCIABLE without participating in SOCIABLE programmes) confirmed a positive experience in terms of a quick learning curve and an ease of use. The positive effects of the SOCIABLE services were also confirmed by care givers, who experienced a positive effect on the elderly/patients they take care of. Moreover, the vast majority of medical experts stated their positive opinion about SOCIABLE, both in terms of its added-value for their patients, but also as a tool facilitating the planning/organization of the cognitive training sessions that they supervise.

Overall, the qualitative questionnaire (analyzed as part of the interim evaluation cycle) showed also that all subjects involved in SOCIABLE (users, caregivers and medical experts) had a positive impact from the use of the SOCIABLE platform. Results from the analysis on neuropsychological tests were confirmed by the positive subjective feeling of improvement of mental, social skills and mood. Moreover, SOCIABLE platform was felt to be easy to learn to use, although age and educational level influence this aspect. Finally, all subjects (examined as part of the interim evaluation cycle) were willing to pay to use the platform at least per package (24 sessions).

4. Analysis of Users, Caregivers and Medical Experts Satisfaction

4.1 Overview of the Sample and the Analysis

The analysis of the satisfaction of elderly users, caregivers and medical experts was based on the collection and analysis of questionnaires as outlined in the previous section. In the scope of the interim analysis, the various questionnaires are as listed in the following table:

Type of Users/ Questionnaire	Remarks
Users Satisfaction Questionnaire	Refers to Elderly that participated in the SOCIABE study
Psychosocial impact of assistive devices scale (PIADS)	
Level of expertise in ICT	
Butterfly Users Satisfaction Questionnaire	Butterfly Users were not involved in the study but used at least once the SOCIABLE platform
Care Giver Satisfaction Questionnaires	Caregivers questionnaires were filled in by caregivers of AD and MCI patients
Medical Experts Questionnaires	

Table 2: Questionnaires Analyzed in the scope of the Satisfaction Analysis

Based on the various questionnaires, we have performed a final analysis about the satisfaction of stakeholders with data collected from all pilot sites. In particular, we executed some inferential statistical analysis only on users' satisfaction and caregivers' satisfaction for which we had a sufficient large (adequate) sample. At the same time we also present some descriptive statistical analysis of the questionnaires of butterfly users and medical experts.

4.2 Main Findings/Results from the Questionnaire of level of Expertise in ICT

Questions	Percentages of responses				X^2
	Pre-training		Post-training		
	Never	At least once	Never	At least once	
Have you ever used a computer?	70	30	63	37	0.107
Have you ever used internet?	77	23	74	26	ns
	No	Yes	No	Yes	
Do you own a mobile phone?	12	88	13	87	ns
Do you have a video/DVD player?	48	52	44	56	ns
	Bad	Good	Bad	Good	
How do you usually feel when you are using computers or new ICT?	50	50	36	64	<.001

Table 3: Percentage of response to questions of ICT questionnaire

The questionnaire of level of expertise in ICT showed that after training subjects tended to use more the computer and had a better feeling when they are using it or other ICT.
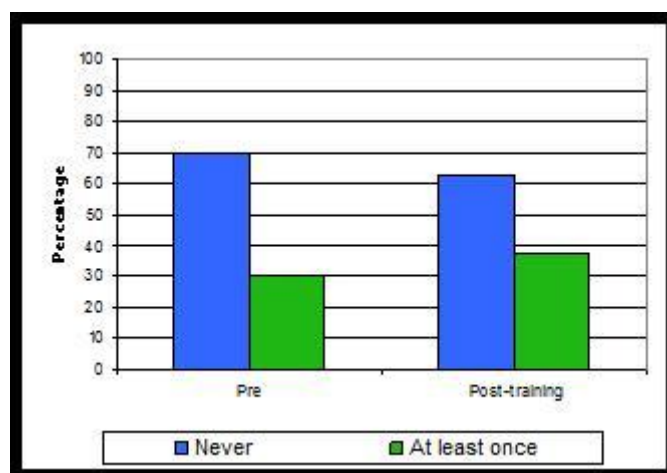

Figure 1: This figure shows that the ratio before the training of the number of users that never used a computer versus users that used a computer in the past is different (approaching a statistical significance) from the ratio after training. In fact, after training more users used the computer (green bar on the right side).
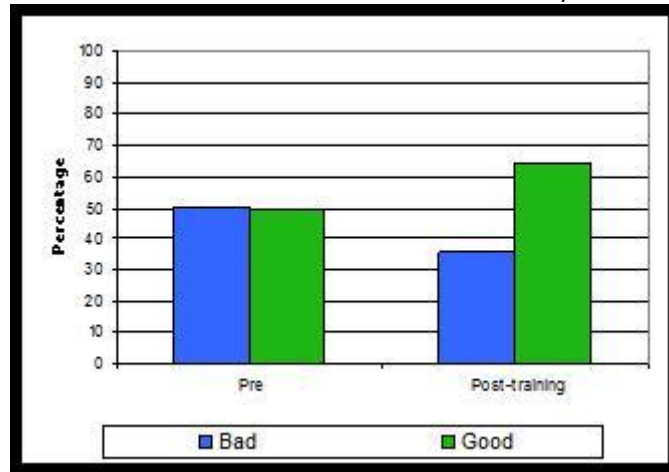
Figure 2: The figure shows that the feeling of users approaching ICT is better after training (green bar on the right side) compared to before training.

4.3 Main Findings/Results from the Users' Satisfaction Questionnaires
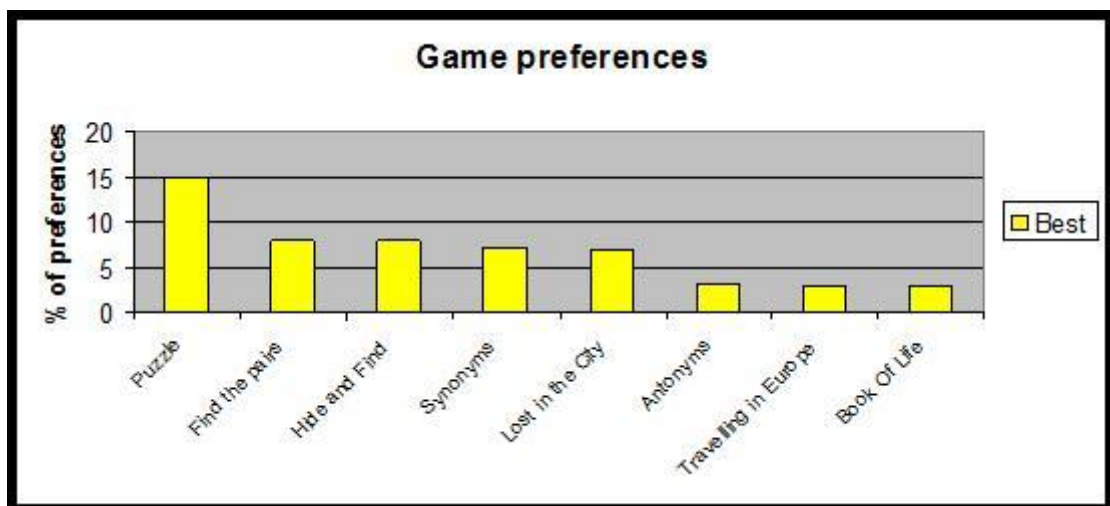

Figure 3: The figure shows the exercises with the highest percentage of preferences during the satisfaction questionnaire. They comprise the best games and the Book of life.

4.3.1 Differences between users group and countries at the USERS satisfaction questionnaire

Table 4 shows all the questions asked to users that participated to SOCIABLE operations after the treatment period. We also reported the median score. A binary logistic regression analysis was performed with each question as dependent variable and age, education, country and pathology as predictor variables. Pathology and country were coded as categorical variables. In these cases we reported in the table the overall effect of the variable. The differences between countries and between groups can be noted in the graphs below.

To perform the analysis, all the data of the users' satisfaction questionnaire were recorded according to median value for each question (corresponding to 50th percentile). Median to top=1 and bottom to median (not included)=0.

Scale: (1)Not at all - Extremely(7)	Median	Country	Pathology	Age	Education
1. How easy was it to learn to use the platform?	6		**		**
2. How easy were the SOCIABLE games to use?	6				**
3. How interesting were the SOCIABLE games?	6		**		
4. How fun were the SOCIABLE games?	6		***		
5. How helpful SOCIABLE was for you?	6		***		
6. To what extend do you think SOCIABLE contributed to improve your mental abilities (memory, attention, etc.)?	5	***	***		
7. To what extend do you think SOCIABLE contributed to improve your mood?	6		*		
8. To what extend do you think SOCIABLE contributed to make you feel less isolated?	6				
9. To what extend would you recommend SOCIABLE to other elderly people?	6				
10. Overall, how satisfied are you with SOCIABLE?	6				
11. Would you be willing to pay to continue using SOCIABLE?	5	*	***		

Table 4: Questions asked to users after the treatment *=sig <.05; *=sig <.01; ****=sig <.001**

Table 4 shows the results of the logistic regression. Overall, users reported a positive attitude toward SOCIABLE as can be seen in the median values that are in the higher bound of the likert scale. We found that education positively predicted the easiness to learn how to use and to use then the platform (the higher educational level corresponds to the higher easiness). In particular, MCI patients found it easier than AD patients. Patients found also the platform more helpful that healthy elderly and they are more willing to pay to use it.

Any differences between countries did not emerge, except for the contribution of SOCIABLE to the improvement of mental abilities. In this case, Greece and Spain users expressed a higher contribution compared to Italy and Norway. This might be due to the larger sample of healthy elderly in the first two countries that are probably more aware of the cognitive benefit of the training.

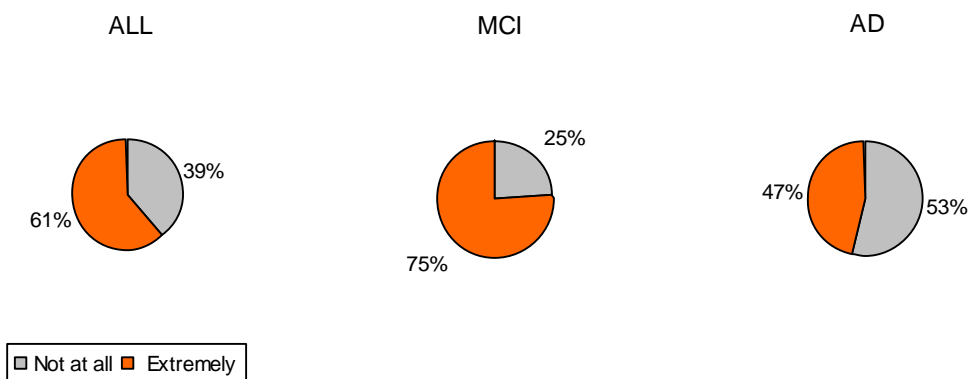## Question 1. How easy was it to learn to use the platform?

ALL   MCI   AD

39%   25%   47%   53%
61%   75%

☐ Not at all ■ Extremely

Figure 4: Different attitude toward EASINESS TO USE the platform among MCI and AD patients.

Question 5. How helpful SOCIABLE was for you?

ALL   HEALTY   MCI   AD

41%   42%   58%   30%   32%
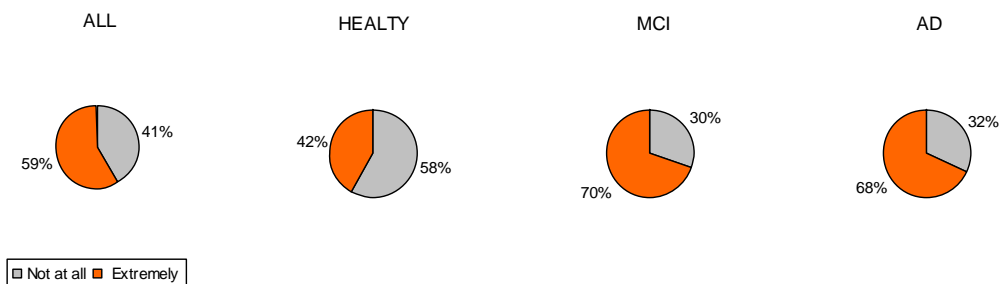59%   70%   68%

☐ Not at all ■ Extremely

Figure 5: Different attitude toward USEFULNESS of the platform between Healthy elderly, MCI and AD patients.

Question 11. Would you be willing to pay to continue using SOCIABLE?

ALL   HEALTY   MCI   AD

32%   51%   49%   29%   15%
68%   71%   85%
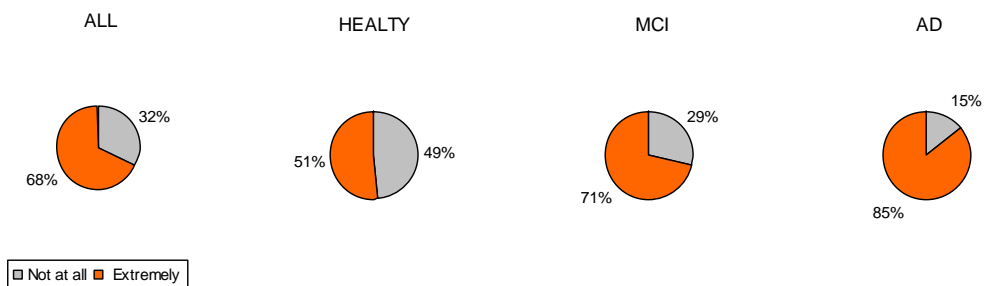
☐ Not at all ■ Extremely

Figure 6: Different attitude toward ECONOMIC EFFORT to use the platform between Healthy elderly, MCI and AD patients.

Question 6. To what extend do you think SOCIABLE contributed to improve your mental abilities (memory, attention, etc.)?
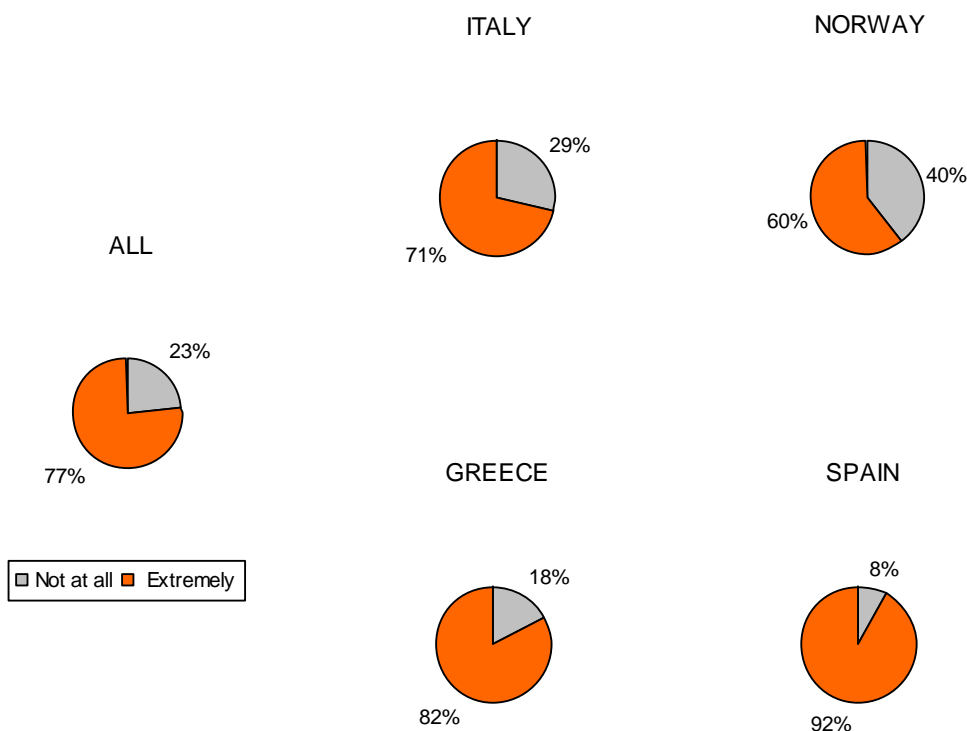

Figure 7: Different attitude toward the effect on MENTAL ABILITIES of the use of the platform between different countries.

4.3.2 Differences between users groups and countries at the CARE GIVERS satisfaction questionnaire

In Table 5 results of a similar logistic regression is reported for the satisfaction questionnaire that was administered to care givers of AD and MCI patients.

Scale: (1)Not at all - Extremely(7)	Median	Country	Pathology	Age	Education
1. What is your overall opinion about SOCIABLE?	6				
2. How happy was your relative to participate in SOCIABLE?	6			*	
3. Overall, how helpful was SOCIABLE for your relative?	6	*			
4.How much has SOCIABLE improved your relative's mental skills?	5		*		
5. How much has SOCIABLE improved your relative's mood?	5			*	
6. How much has SOCIABLE improved your relative's social skills?	5			*	
7. Would you suggest others to participate in SOCIABLE?	6	*			
8. Are you willing to pay to give your relative the opportunity to use SOCIABLE?	5				

	per package				
9. If yes, woul4 you prefer to p1y...					
10. How much SOCIABLE decreased your stress level?	5		**		

Table 5: Questions asked to care givers after the users treatment (*=sig <.05; *=sig <.01; ****=sig <.001)**

Also in this case the impact was overall positive. We found only minor differences between countries and groups. Nevertheless, we found that SOCIABLE exerted a higher impact of MCI care givers compared to AD care givers. This could be due to the higher impact of the cognitive deficit in these early prodromal stages of the disease.

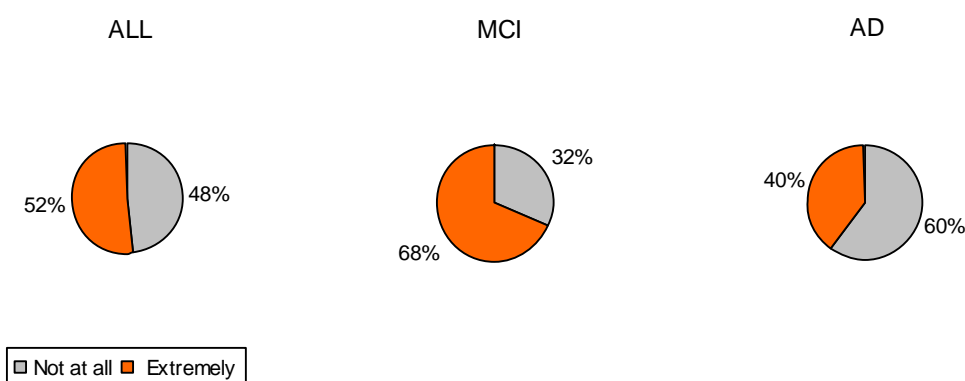**Question 10. How much SOCIABLE decreased your stress level?**

ALL   MCI   AD

☐ Not at all ■ Extremely

Figure 8: Different impact of SOCIABLE on the CARE GIVER level of stress.

4.4 The psychosocial impact of assistive devices scale (PIADS)

Figure 9 illustrates the mean score obtained at the PIADS about the impact of the use of the SOCIABLE platform on their feeling of ability, adaptability and self-esteem. Scores range from -3 to 3 and all three areas showed a positive impact of the use of the platform on users.
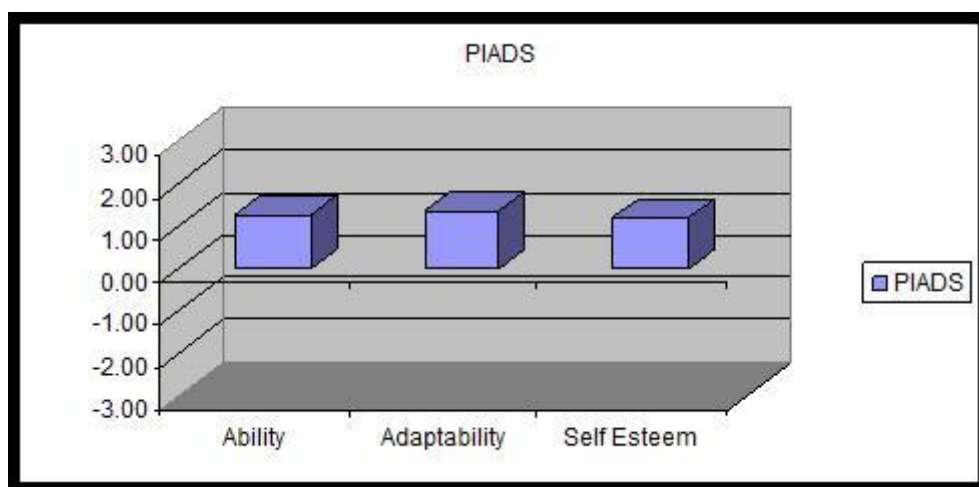

Figure 9: Mean score obtained at the PIADS about the impact of the use of the SOCIABLE platform on their feeling of ability, adaptability and self-esteem

Butterfly users – Questions	Median
1. How easy was to use the platform?	6
2. How interesting did you find the SOCIABLE games?	6
3. How fun did you find the SOCIBLE games?	6
4. Would you be willing to pay to use SOCIABLE?	4
Internal Medical experts – Questions	
1.How easy was it to learn to use the platform for you?	6
2. How easy were the SOCIABLE games to use for the elderly?	5
3. How interesting were the SOCIABLE games for the elderly?	6
4. How fun were the SOCIABLE games for the elderly?	6
5. How easy were the SOCIABLE games to use for you?	6
6. How helpful do you think SOCIABLE is for the elderly?	6
7. How helpful SOCIABLE was for you in your work?	6
8. To what extend do you think SOCIABLE contributed to improve the cognitive abilities of the elderly (memory, attention, etc.)?	6
9. To what extend do you think SOCIABLE contributed to improve the elderly mood?	6
10. To what extend do you think SOCIABLE contributed to make the elderly feel less isolated?	6
11. To what extend would you recommend SOCIABLE to other professionals working with elderly people?	7
12. To what extend do you think SOCIABLE helped you to learn about new technologies applied to health care?	6
13. To what extend do you think what you learnt in SOCIABLE will help you in the future?	6
14. Overall, how satisfied are you with SOCIABLE?	6
15. To what extend do you think SOCIABLE could be provided as a paid service from your Organization?	6
16. Would you be willing to pay to be trained to the use of SOCIABLE system?	5
External Medical experts – Questions	
1. How interesting were the SOCIABLE games for the elderly?	6
2. How fun were the SOCIABLE games for the elderly?	6
3. To what extend do you think SOCIABLE could contribute to the improvement of the cognitive abilities of the elderly?	5
4. To what extend do you think SOCIABLE could contribute to the improvement of the mood of the elderly?	6
5. To what extend would you suggest SOCIABLE to other professionals working with elderly people?	7
6. Overall, how would you rate SOCIABLE?	6

Table 6: Level of satisfaction of butterfly users and internal and external medical experts

At the same time Table 6 shows that satisfaction of butterfly users and medical experts (internal and external) was high since the median score was in almost all questions around 6 (range 1-7).

5. Conclusions

This deliverable has focused on the analysis of feedback derived from the SOCIABLE users and stakeholders, including elderly end-users, medical experts, health professionals and caregivers. Feedback from these stakeholders has been received on the basis of appropriate questionnaires, during the SOCIABLE pilot operations. The deliverable refers to the final SOCIABLE evaluation cycle, which analyzes the full range of questionnaires delivered in the scope of the SOCIABLE pilot operations.

The results of the analysis confirm a set of main conclusions which have already been derived as part of the interim evaluation cycle. In particular, the evaluation is overall positive, as the SOCIABLE platforms has been assessed as easy to learn and use by elderly users (both participants to the SOCIABLE clinical study and butterfly users). SOCIABLE has overall achieved an improvement to the mood and cognitive status of the elderly, which has been certified by both the elderly and their caregivers. This improvement is also in-line with the results of the clinical evaluation (reported in deliverable D7.2). Moreover, the analysis of the PIADS tests/scale illustrated a positive impact of the SOCIABLE platform on the elderly feelings of ability, adaptability and self-esteem. SOCIABLE has also received a positive assessment from medical experts as well, since they perceived the SOCIABLE platform as a useful tool for configuring/planning and evaluating cognitive training sessions.

Apart from confirming the main findings of the interim evaluation, the final evaluation has also revealed some additional results, concerning the impact of the characteristics of the different users in the satisfaction and ease of use associated with the SOCIABLE platform and services. For example, it was found that the educational level of the users was a decisive factor associated with the ease of use and the learning curve associated with the SOCIABLE platform i.e. elderly with higher education could easier learn how to use the platform. Furthermore, it was also observed that MCI patients could easier use the platform comparing to AD patients, which health elderly appeared more willing to pay for its use.

Another interesting remark is that SOCIABLE has made all the subjects that used it to feel more comfortable with the use of the ICT, leading also to an increased use of computers comparing to the period before their SOCIABLE experience.

The country of the elderly did not seem to have a significant impact on the results. However, a great improvement to the mental abilities of Greek and Spanish patients was witnessed, probably due to the involvement of larger number of healthy elderly in those two countries. Likewise the overall impact of the platform was observed in MCI patients (comparing to the other two groups), probably due to the higher impact of the cognitive deficit in these early prodromal stages of the disease.

Overall, the analysis of feedback from stakeholders has confirmed the positive impact of the SOCIABLE approach on elderly, their caregivers and the health

professionals. This positive impact is in-line with related findings as part of other evaluation efforts in SOCIABLE (e.g., in-line with the clinical assessment). Furthermore, it is in-line with the positive attitude against SOCIABLE observed as part of contacts with potential customers and other stakeholders in WP8. This assessment is another asset for the exploitation and sustainability of the project's results, including the commercialization activities planned after the end of the project.