

Usability Assessment of a Self-Control Training App for Students with ADHD

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Abstract

Background: Attention-Deficit Hyperactivity Disorder (ADHD) is a disorder of impaired behavioral and emotional self-control. It has been shown to negatively influence academic success and other life-outcomes, stressing the importance of offering effective and safe interventions to students with ADHD. Some interventions are based on self-control training (SCT). SCT is based on the strength model of self-control which assumes that there is a general capacity of self-control in each person which is drawn from every time self-control is used and which can be trained like a muscle. This can be done by overriding dominant responses like using the non-dominant hand during daily tasks. A SCT mobile application (app) was developed based on this theory. In order to ensure safe, pleasant and successful use, however, the usability of this app needed to be assessed.

Objective: A study was conducted to assess the usability of this SCT app for university students with ADHD.

Method: A multiple-methods approach was used in which a researcher documented 5 participants' first use of the app in a controlled online-setting using a think-aloud method. Afterwards, participants were asked to use the app for 14 days. After these 14 days, an online interview was conducted. Furthermore, the think-aloud method was conducted a second time and the System Usability Scale (SUS) was used to measure usability.

Results: The results revealed a satisfactory usability for university students with ADHD. Especially the simplicity and minimalistic nature of the app helped participants navigate the system. Furthermore, participants appeared to like the app's design, especially the mascot and the overview with the mountain, which was generally perceived as motivating. According to participants, the illustrations made the app more entertaining, which they perceived to be an important factor for apps targeted towards people with ADHD. Furthermore, the goal of training self-control was seen as a goal relevant for people with ADHD. Suggestions for

improvement included changing the name of some menu options or including more theoretical background knowledge.

Conclusion: Overall, the SCT app showed a satisfactory usability for university students with ADHD. Since this study demonstrated sufficient usability, future research should focus on assessing the effectiveness of this SCT app in students with ADHD.

Keywords: app, usability, self-control, ADHD, self-control training

Usability Assessment of a Self-Control Training App for Students with ADHD

Attention-Deficit Hyperactivity Disorder (ADHD) is a condition characterized by impulsivity, hyperactivity and inattention. It is considered to primarily be a disorder of impaired behavioral and emotional self-control (Eme, 2016). While ADHD starts during childhood, many people with ADHD struggle with its symptoms even in their adult life (Barkley et al., 2002). In line with this, around 6% of university students suffer from ADHD. Students with ADHD are the second largest subgroup of college students with disabilities and are less likely to successfully complete their degrees (Harbour, 2004; McGillivray & Baker, 2009). These negative influences of ADHD on life-outcomes are likely caused by the above-mentioned symptoms of inattention, impulsivity and hyperactivity. These symptoms might hinder people to use their time efficiently and lead them to engage in activities harmful to their long-term goals. Inattention, impulsivity and hyperactivity, in turn, might be rooted in impaired behavioral and emotional self-control (Eme, 2016). Since ADHD has been shown to negatively influence academic success and other life-outcomes, developing effective interventions for students with ADHD is of importance (Pope, 2010). It might be possible to reduce some of the negative consequences of ADHD by developing and administering effective interventions aimed at improving self-control for students with ADHD.

The term self-control refers to the ability to adjust one's behavior to one's intentions and to inhibit one's impulses (Koi, 2020). Research demonstrates that self-control measured early in life is associated with various life outcomes at a later point in life (Daly et al., 2015; Moffitt et al., 2011). For instance, self-control has been shown to have a strong influence on outcomes like academic success, interpersonal relationships, substance use, health and financial success (Duckworth & Seligman, 2005; Tangney et al., 2004). Compared to people

with low self-control, people who score high on self-control tend to be more successful during performance of their everyday tasks (Haghbin et al., 2013). In line with that, it has been shown that the effect of self-control on academic achievement is about twice as strong as that of intelligence (Duckworth & Seligman, 2005). This might be because people with high self-control are more likely to be able to make good use of their study time, to separate leisure activities from duties and to refrain from activities harmful to their educational development (Haghbin et al., 2013). While it appears to be possible to improve self-control using targeted interventions, only few interventions in clinical practice are targeting self-control (Piquero et al., 2016; Denson et al., 2012).

Self-control can be improved by a broad range of interventions, amongst which some are based on the strength model of self-control (Baumeister et al., 2007). Other common interventions include impulse control training and mindfulness training (Smith et al., 2019). The strength model of self-control assumes that everyone has a general capacity of self-control which is drawn from every time self-control is used. Self-control usage may consist of controlling eating behavior, attentional control or emotional control, which all make use of this general capacity of self-control (Miles et al., 2016; Finkel et al., 2009). According to this model, self-control is similar to a muscle which can be trained (Hagger et al., 2010). By training the general self-control capacity, one might be able to grow the pool to draw from. According to the strength model of self-control, training self-control is possible by practicing overriding dominant responses, for example by using the nondominant hand during everyday activities or by avoiding commonly used words (Miles et al., 2016; Finkel et al., 2009). In support of this model, research has demonstrated that self-control training (SCT) can lead to slight improvements in self-control (Friese et al., 2017). Similarly, another meta-analysis found significant, small-to-medium effects of SCT on varying outcomes including those contributing to health and well-being, like reduced anger and aggression or reduced

smoking behavior (Beames et al., 2017). Therefore, a SCT intervention might be used to increase self-control.

One possibility to provide SCT to individuals is by making use of E-mental health (eMH). eMH uses technologies like chats, apps, e-mails, websites and more to provide mental health services (Whittaker et al., 2012). Compared to traditional mental health interventions, eMH may offer easier access to treatment and tends to be more cost effective (Lal & Adair, 2014). Existing eMH options for people with ADHD utilize games, reminders and education about ADHD (Young et al., 2014). There is, however, only little knowledge about the use and value of many of these interventions and there is often no evidence provided for the effectiveness of these interventions (Powell et al., 2017). Therefore, there is a need for an eMH intervention which is tested for effectiveness and based on firm theoretical background. One possible theory to base such an intervention on could be the above-mentioned strength model of self-control. Since university students face many barriers to traditional therapy including stigma and financial hurdles, an eMH intervention based on SCT might be beneficial for university students with ADHD (Binhadya et al., 2016). A smartphone application (app) would be an appropriate medium for this eMH intervention since apps offer features like reminders which can increase adherence to the regular tasks that need to be completed during the SCT (Miles et al., 2016). In line with this, it has been shown that an app-based intervention was more effective at increasing self-control in students than an e-mail intervention (Kip et al., 2021). However, before such an app can be made available for students with ADHD, its usability and effectiveness need to be assessed.

Usability is a quality attribute used to describe whether users can interact effectively with a system and how easily a system can be operated (Nielsen, 2012). High usability will result in fewer use errors, facilitates task completion and will make the app more likely to meet the users' preferences and needs. Testing an apps' usability will help discover

opportunities for design refinement and improve interaction with the app. This will make the app easier, safer and more pleasant to use which might eventually increase user satisfaction and effectiveness (Wiklund et al., 2010). People with ADHD, specifically, can benefit from high usability. They have been shown to have heightened frustration intolerance, stressing the necessity of providing an app which is easily operated so that frustration can be avoided (Seymour et al., 2016).

In conclusion, since self-control appears to have a strong influence on academic success and people with ADHD seem to face difficulties exerting self-control, they might benefit from the use of a SCT app (Duckworth & Seligman, 2005; DuPaul et al., 2009). Before this app can be made available for public use, however, it is important to test its usability. Therefore, this study will be aimed at answering the following research question: What is the usability of a self-control training app for students with ADHD?

Methods

Study Design

This study used a multiple-methods approach in which participants' first use of the app was accompanied and documented by the researcher in a controlled online-setting using a think-aloud method. Afterwards, participants were asked to use the app for 14 days in a real-world setting. After these 14 days, there was an online interview. Furthermore, the think-aloud method was used a second time and the System Usability Scale (SUS) was used to measure usability. This study was approved by the ethical committee of the University of Twente (request number 211386).

Participants

Participants consisted of university students with ADHD who owned an android smartphone to be able to use the app. Participants were verbally asked about their ADHD diagnosis. Furthermore, they were supposed to be at least 18 years old and be able to speak Dutch and English. Additionally, they were supposed to be able to use their hands for daily tasks and not be ambidextrous. A convenience sample was recruited via Sona, a test subject pool of the University of Twente enabling students to participate in studies in an exchange for course credits. Overall, 6 participants were recruited. One of these participants, however, did not own an android smartphone and was, therefore, excluded from the sample, resulting in 5 participants.

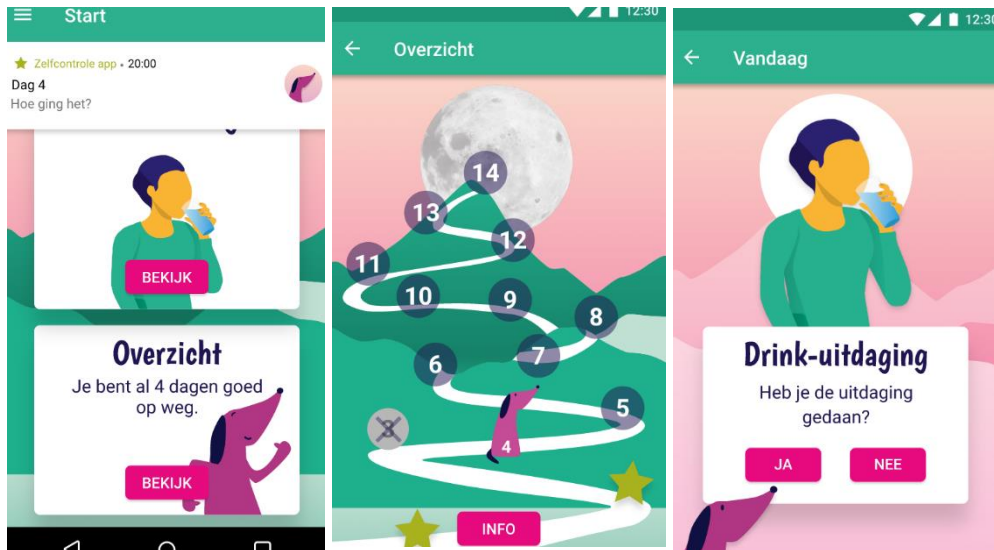
Materials and Procedure

Application

The app used in this study is the app *SCIPP: the Self-Control Intervention aPP*. It is based on the strength model of self-control and was designed specifically with and for people with (severe) mental illness. This app is available for android smartphones and encourages users to use their non-dominant hand during different everyday tasks like opening a door or turning on the light. This daily practice in overriding dominant responses is supposed to increase their general capacity of self-control, which might lead to improvements in various self-control domains. Once the daily challenge has been accepted, the user is reminded of the challenge 4 times per day. At the end of the day, users are asked whether they completed the challenge, in which case they will see a reward screen. The app also offers an overview page which gives users an overview of the tasks they completed and have yet to do. Screenshots of the app can be found in Figure 1.

Figure 1

Screenshots of the SCT App



Note. This figure features screenshots of the start screen, the task overview and the daily task.

Informed Consent

Before the start of the study, participants received an information sheet and were asked to provide written informed consent (see Appendix A). The information sheet provided the participants with information about the aim of the study, the benefits for both parties, the right of the participants to remove themselves from the study at any time, as well as contact details.

Think-Aloud Method

During the first session, participants' first use of the app was accompanied and documented by the researcher using a think-aloud method (Someren et al., 1994). During this method, the researcher prompted participants to navigate through specific features of the app and took notes on their success or problems in doing so. These features included setting up the app, navigating to the task overview and opening the menu. Participants were asked to say aloud their first impression of the app and its design. The second session took place after participants used the app for 14 days. During this session, the think-aloud method was again

applied and participants were asked to search for information about their completed challenges, change the dominant hand setting and look for information about their initial motivation for training self-control (see Appendix B). Responses were audio recorded and transcribed. Participants were encouraged to voice both positive and negative remarks. If a participant stopped talking, the interviewer asked an open question like: “What are you thinking?”.

Interview

Research demonstrates that technology accessibility, relating to the technology, addressing ADHD symptoms and app interaction were among the characteristics influencing suitability of apps for young people with ADHD (Powell et al., 2017). Therefore, once the 14 days were over, an online interview was conducted which included questions on these specific topics (see Table 1).

Table 1

Overview of Questions by Identified Characteristics

Characteristic	Question
Technology Accessibility	Did you come across any barriers while setting up the app?
	How was your experience registering?
	How was your experience accessing the daily challenges?
	Did you experience any difficulties navigating the app?
User Relating to the App	Did you encounter any other difficulties over the last 14 days?
	What is your opinion regarding the mascot?
	Could you relate to the mascot?
	What is your opinion regarding the design of the app?
Addressing ADHD Symptoms	Which suggestions of improvement do you have for the design of the app?
	Are you satisfied with the level of personalisation offered by the app?
	Do you feel like this app is appropriate and fitting for people with ADHD?
	Do you feel like the tasks in this app are relevant for people with ADHD?

Characteristic	Question
App Interaction	<p>How was your experience receiving the daily reminders?</p> <p>Did you perceive the balance between theory and activity as appropriate?</p> <p>Do you feel like you learned something from using this app?</p> <p>Did you enjoy using this app?</p>

System Usability Scale

The System Usability Scale (SUS) is an established measure of usability, which consists of a 10-item questionnaire with five response options ranging from strongly agree to strongly disagree (see Appendix C). It is considered a validated and reliable measure of usability (Lewis, 2018). It was developed by Brooke (1996) and was used after the 14-day period in which the participants were testing the app. The SUS includes items like: (1) I think that I would like to use this system frequently; (5) I found the various functions in this system were well integrated. Participants were asked to verbally rate the app using the SUS and were additionally interviewed about the reasoning behind their choices. All conversations between the researcher and the participants were audio recorded and took place on the video conferencing platform Skype.

Data analysis

Thematic analysis (TA) was used to analyze the data from the think-aloud method as well as the interview and discussion of the SUS. The analysis followed 6 steps: (1) data familiarization, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) writing the report (Braun & Clarke, 2006). During data familiarization, the data was transcribed and repeatedly read. Attention was paid to meanings and patterns in the responses and notes on initial thoughts were taken. In the next step, initial codes were generated by extracting relevant features from the data and organizing it into meaningful groups. Next, the codes were grouped into potential themes. Furthermore,

data fitting for each theme were searched. Afterwards, the themes were reviewed by assessing whether the coded data extracts for each theme were fitting and by assessing whether the generated themes accurately reflect the dataset as a whole. In the next step, the themes were refined so that the definition and characteristics of each theme became clearer.

Scores for the SUS were computed for each participant by subtracting each score on the even numbered questions from 5 and subtracting 1 from the score of every odd numbered question. These values were added up to one score which was then multiplied by 2.5.

Results

Participant Characteristics

Five participants were included in this study. All of them were university students aged 18 to 20 years (mean: 19.2; SD: 0.77) diagnosed with ADHD. Participant characteristics are reported in Table 2.

Table 2

Characteristics of Participants

Characteristics	n	%
Gender		
Male	3	60
Female	2	40
Time since Diagnosed with ADHD (years)		
<1	0	0
1-3	4	80
>3	1	20
Currently Taking Medication	5	100

Note. $N = 5$.

Think-Aloud Method and Interview Results

The analysis of the interview transcripts (see Appendix D) resulted in 7 themes: Design; Structure; Motivation and Enjoyment; ADHD Appropriateness; Integration of App in Everyday Life; Learning Experience and Personal Gain; Technical Difficulties. The results from the first and second interview session were merged, since similar and reoccurring topics like the intuitive structure of the app, the design and the motivation to train self-control were covered in both sessions. More information about the themes can be found in Table 3.

Table 3

Identified Themes

Description of Theme	Example Quote
<p>Design The visual characteristics of the app including but not limited to overall aesthetic, colour scheme and illustrations.</p>	<p>“It's not too cluttered, but the colors are nice. I mean the dog color doesn't really match with the background color...” (P5)</p>
<p>Structure The way in which different elements and functions are connected and tied into each other and the experience of navigating through these elements and functions.</p>	<p>“...the main focus of the app also has a central stage in the app itself. Like if you want to do the challenges it's big on the homescreen and the side information is tucked away in the menu so...” (P4)</p>
<p>Motivation and Enjoyment Whether or not the app increases motivation for continued usage and whether it is experienced as enjoyable.</p>	<p>“I really enjoyed using it. It was like a fun little thing. Also, because it's very personal so you're like alright, today I'm gonna open doors with my left hand and then every time you open a door with like my left hand I thought of it and it felt very good it was like a boost in confidence. Which is really nice, I really enjoyed that.” (P5)</p>
<p>ADHD Appropriateness The extent to which this app is experienced as safe, suitable, enjoyable and helpful specifically for people with ADHD.</p>	<p>“...every time I opened the app, I saw there at the first page: task for the day. And that's good because it helps you remember, which is good for people with ADHD, because we sometimes forget things easily.” (P3)</p>

Description of Theme	Example Quote
<p>Integration of App in Everyday Life The extent to which the app was used in the participants' everyday lives as well as the compatibility of the app with everyday life functioning and the absence of disruptions caused by the app.</p>	<p>“I don't like notifications so they weren't that great. Especially the ones in the morning because in the mornings you get so many of them. The ones in the afternoon were cool because they were like, okay I need to be doing something so I thought they were good because they reminded me of what I was doing.” (P5)</p>
<p>Learning Experience and Personal Gain The extent to which the app offered the possibility to learn or added perceived benefits to participants' lives.</p>	<p>“...I don't know if I actually learned something from it. It was more that I, yeah, it yeah, I needed to learn self-control but it was more that I constantly needed to be aware, actually. I needed to constantly be aware that today I needed to do this. But I don't know if it has something to do with self-control or like a heightened sense of awareness or something. But I don't have the feeling like I actually learned something.” (P4)</p>
<p>Technical Difficulties The disruption of app use due to misunderstanding or malfunction of the technological device or the app.</p>	<p>“So, for starters my app continuously just shuts off. But I think that is because of my phone quality and that I need new codes now and then but those are the only two things that I had difficulties with.” (P4)</p>

Design

Participants expressed an overall satisfaction with the design of the app. They especially liked the color scheme (P2) and the mascot which looks like a dog and caused positive associations in several participants (P3; P5). One participant noted:

The dog gives off a vibe of being at ease, of being peaceful and it actually helps me...

[P1]

Another participant thought that the “playful” design matched the concept of the app, which he perceived as playful as well due to the challenges (P4). Furthermore, one participant who only spoke Dutch as a second language, made the experience that the illustrations helped him understand the instructions given by the app (P3). Additionally, several participants mentioned that the illustration of the mountain in the task overview gave them a feeling of accomplishment (P1; P5). Nevertheless, participants also expressed wishes for improvement. One of them stated that a dark mode could be useful since some people prefer to use their smartphones in dark mode (P1). Additionally, in the follow-up session it was stated that the sliding bar used to indicate how the challenge went maintained a red tone even when it is indicated that the challenge went well. This felt counterintuitive and confusing to the participant who expected the bar to turn green when he recorded a positive result (P4). Furthermore, it was criticized that the illustration of the moon in the overview did not match the other illustrations, since it was more detailed which was perceived as “annoying” (P5).

Structure

Overall, the structure of the app was perceived as straightforward, clear and self-explanatory (P1; P2; P4). Participants stated that they liked the minimalistic nature of the app which was helpful in staying structured and oriented (P1). Furthermore, the navigation of the app was perceived as intuitive and easy, partly because of the simplicity of the app which left little room for error (P2; P4; P5). Participants also appreciated the introduction at the beginning which clarified what the app was about (P3). Additionally, participants felt like they were well guided through the app (P4). Furthermore, they liked that the important functions like the overview and challenge of the day were displayed easily visible on the home screen while less important functions were more hidden in the pop-up menu on the side, which made the functions of the app seem well integrated (P4). However, in the second session several participants criticized the app’s settings (P2; P5). One participant was irritated

that the option was referred to as settings while it was only possible to change one function, namely the dominant hand and suggested to just call it “change dominant hand” instead (P2).

Another participant noted:

...it's not the first thing that I thought of when I saw the settings. I thought it would be like: In what language do you want it? Or do you want to have a dark mode if that's an option, but it's not. Well, I thought I could change if I get push notifications and stuff like that. I guess it makes sense to put it on the settings but when I saw the settings menu it was not the first thing that I thought would be under it.

[P5]

Another point of criticism was that the two menu options “Why train self-control?” and “Why do you want to train your self-control?” sounded similar, which led to confusion. It was suggested to call the latter option “your goal” instead (P5). Furthermore, in the follow-up session one participant complained that after rating how well the daily challenge went, it was not possible to review and look back on the previous ratings which would have been helpful for reflection purposes (P5).

Motivation and Enjoyment

At the beginning of the study, two participants expressed their motivation to use the app since it was their personal goal to increase their self-control (P1; P3). One participant was already familiar with the theory underlying the app which increased his motivation. He expected the app to be effective and was looking forward to the results he expected (P3).

Other participants expressed being motivated by the simplicity of the app:

...because it's straightforward and because it's easy to use, you don't see it as a hefty task.

[P4]

In the follow-up session, participants reported that they enjoyed using the app because the challenges were fun and easy and completing the challenges gave them a boost of confidence (P4; P5). However, several participants mentioned that the app would have been

more motivating if the personal goal would have been better integrated in the app, for example by displaying it in a circle on the main screen or by being reminded of it after seven days of using the app (P1; P5). Another participant noted that, while the “Why train self-control?” option reminded him of the importance of training self-control and, therefore, motivated him, more information about how and why this app can help improve self-control would be needed to increase motivation and enjoyment regarding this app (P2). It was also mentioned that the app would be more likely to be used frequently if it was more competitive (P4). Furthermore, it was suggested to display a countdown of how many days of challenges are still left, since it might be motivating to see how far you still have to go (P5). It was also suggested that the mascot should be given a name and that he should provide encouraging quotes (P5).

ADHD Appropriateness

In general, participants did not perceive the app to be explicitly about ADHD, however, they still viewed the app as appropriate for people with ADHD (P1; P5). The simplicity of the structure, the absence of distracting noises and the easiness of the tasks requiring users to be disciplined and focused were perceived as especially appropriate for people with ADHD (P3; P4; P5). Furthermore, the illustrations were perceived as helpful, since they made the app appear less boring (P3). It was stated that SCT is something that especially people with ADHD can benefit from (P2). Furthermore, the easy access to the training as well as the availability appeared to make this app especially appealing for people with ADHD. One participant noted:

...sometimes self-controls is missing. I did train it already, in my ADHD therapies but sometimes I need more help and I think the daily exercise is really a good thing for that because the ADHD therapy was maybe every 2 or 3 months and they don't have an access to exercises like this one.

[P3]

While one participant mentioned that ADHD made it harder to remember to complete the challenges during the day, another participant mentioned that the notifications were perceived as helpful, especially for people with ADHD, to remember to complete the challenges (P 3; P4).

Integration of App in Everyday Life

A common issue regarding the integration of the app in everyday life appeared to be that participants struggled to remember to complete the tasks during the day (P1; P2; P5). Generally, the notifications were perceived as helpful, however, participants still had difficulties remembering the challenges (P1; P2; P5). Furthermore, several participants complained about receiving too many notifications (P2; P4; P5). It was suggested to reduce the notifications to only two notifications, one at the start and one at the end of the day (P4). Especially the notifications in the afternoon were perceived as helpful, while the ones in the morning were perceived as annoying since many apps send out notifications in the mornings which might be overwhelming (P1; P5). Additionally, one participant experienced barriers because certain challenges were not applicable to her everyday life. She reported that she was not able to complete the “zipper challenge” because she did not wear clothes with a zipper (P3). Furthermore, it was mentioned that the app might be inconvenient for people who go to bed early since it was not possible to mark the challenges as completed in the early afternoon, causing the participant to forget to mark some challenges as completed (P4). Similarly, another participant suggested to show a screen asking users to rate the previous day’s challenge once the user opens the app in the morning to prevent them from forgetting to mark the challenge as completed (P5).

Learning Experience and Personal Gain

In general, participants reported feeling more aware and mindful since using the app (P1; P3). Furthermore, it was mentioned that the app helped participants reach their personal

goals and feel more organized (P1; P3). One participant mentioned that the tasks felt like brain exercises and that he will remember some of them to try them independently in the future (P3). Contrary, one participant felt like the app did not add anything to his normal life (P4). A reoccurring point of criticism was that participants would have liked to learn more about the theory and research underlying the app (P1; P2; P5). One participant stated:

...the theory isn't really explained as to why it would work so I mean that's - I'm not sure how anyone else would look at this but for me it's, you know, a pretty big part to know the logic behind the process and why it would work.

[P2]

Participants suggested to solve this issue by showing a short quote with background information after a challenge is accepted. This quote could explain why the task is expected to increase self-control and, therefore, might increase motivation (P1). Another suggestion was to offer a link to a website or scientific article in the app's menu (P2). In contrast, one participant stated that he would not like the app to offer more theoretical background knowledge since this would not fit the style of the app. He mentioned:

I didn't want there to be more background knowledge because for me it was mostly about focusing on the tasks, so I didn't want to be flooded with information. Because it doesn't really fit the style of the app because the app is really playful and simple and I think a lot of information wouldn't really fit that.

[P4]

Technical Difficulties

While the app worked well for most participants, others faced technical difficulties. During the first session, one participant experienced issues with the text on the buttons of the app. This was easily resolved with the help of the researcher by changing the language setting on his phone. Had he not gotten help, however, he would not have known how to solve this issue (P2). Another participant downloaded the android system to his apple device to use this app. This resulted in some minor difficulties and he expressed the wish to have the option to

use this app on apple products as well (P3). Furthermore, one participant got logged out of the app several times and was required to enter a new code. He suspected his smartphone to be the reason for this, since it was already old and the participant mentioned that there are several apps which do not function properly on his phone anymore (P4). These continued technical difficulties were also reflected by the fact that this participant provided the lowest overall usability rating (80).

System Usability Scale

The results of the SUS yielded a score of 92 out of 100. This can be interpreted as an indication that the app is overall safe and easy to use (Brooke, 1996). The SUS scores per participant can be found in Table 4. Notably, P3 gave the highest score out of all the participants. Furthermore, he was the only participant to completely agree with the first item (“I think that I would like to use this system frequently”), which was also the item with the overall lowest rating. The lowest rating was given by P4.

Table 4

System Usability Scale Scores per Participant

Participant	SUS Score
P1, woman, 20	97.5
P2, man, 20	92.5
P3, man, 19	100
P4, man, 18	80
P5, woman, 19	90

Discussion

Principal Findings

This study was aimed at assessing the usability of a SCT app for students with ADHD. High usability is important since it can minimize use errors, facilitate completion of tasks and make apps more likely to meet users' preferences and needs. Optimizing usability, therefore, makes the app easier, safer and more pleasant to use which might eventually increase user satisfaction and effectiveness (Wiklund et al., 2010). In this study, five participants were asked to use a SCT app for 14 days and were interviewed about their experiences and opinions regarding the app.

Among the main findings of this study was that the assessed app offers high usability for university students with ADHD, as indicated by the results of the SUS. Furthermore, all participants were able to use the app for 14 days without experiencing major difficulties. Especially the simplicity and minimalistic nature of the app helped participants navigate the system. Furthermore, participants liked the app's design, especially the mascot and the overview with the mountain, which was generally perceived as motivating. According to participants, the illustrations made the app more entertaining. They perceived this to be an important factor for apps targeted towards people with ADHD. This might be because people with ADHD often struggle with inattention and impulsivity, so an intervention which is perceived as entertaining could make it easier for people with ADHD to focus on the intervention and to complete its tasks (Eme, 2016). Furthermore, the goal of training self-control was seen as a goal relevant for people with ADHD.

However, participants also made some suggestions for improvement. The daily reminders offered by the app, for example, were perceived as overall helpful. Nevertheless, some participants reported that they sometimes forgot to complete tasks despite the reminders. However, they did not think that adding more reminders would help. Instead, some participants even suggested reducing the number of reminders, which they perceived as

bothering. Other suggestions for improvement included changing the name of some menu options or including more theoretical background knowledge.

One reoccurring topic brought up by participants was that maintaining a simple design and structure is especially relevant for users with ADHD. It was mentioned that the simplicity of the app prevented the participants from being distracted or overwhelmed. Considering that a common symptom of ADHD is inattention, it is not surprising that participants perceived the simplicity of the app as positive (Eme, 2016). Furthermore, it was mentioned during the interviews that the simple structure made it easy to navigate the app which is important, since having to search for specific functions can easily lead to frustration (Hazarika et al., 2015). People with ADHD, specifically, have been shown to have a heightened frustration intolerance, stressing the necessity of providing an app which is intuitive to use so that frustration can be avoided, thereby making sustainable use more likely (Seymour et al., 2016).

In line with previous findings, this study also found that app interaction and technology accessibility were important factors in terms of determining usability for people with ADHD (Powell et al., 2017). Daily reminders were the main form of app interaction during the day and were among the reoccurring topics mentioned in the interviews. This stresses the importance of app interaction to the participants. Furthermore, topics like technical difficulties, which can decrease technology accessibility were mentioned by two participants. One of these participants gave the overall lowest rating on the SUS, which might have been due to the technical difficulties he experienced. This stresses the importance of preventing the occurrence of technical difficulties. The results of the present study, however, also imply that ADHD symptoms do not need to be explicitly addressed. Some of the participants already assumed that training self-control would help with their ADHD symptoms without it being explicitly stated. Therefore, this study supports the findings by Powell et al. (2017) that app interaction and technology accessibility are important factors

determining the suitability of apps for people with ADHD. The importance of specifically addressing ADHD, however, was not supported.

This study also identified a factor of importance for people with ADHD which was not identified by Powell and colleagues (2017), namely the importance of theoretical background knowledge and information about the theory and mechanisms underlying the intervention. The importance of receiving at least some extent of information and education within the intervention was expressed by several participants during the interviews in the second session. One participant who acquired more background knowledge by doing personal research, stated that his background knowledge made him feel more motivated to use the app. This was also reflected in his rating of the app on the SUS, since this specific participant gave the highest rating out of all the participants. A possible explanation for this discrepancy between the present study and the study by Powell et al. (2017), could be that the current study used a sample of university students studying psychology, while Powell et al. (2017) used a sample of younger participants. It is likely that psychology students made the choice to study psychology out of interest regarding psychological knowledge, which might result in a higher demand for theoretical information during psychological interventions (Jacobsen & Diseth, 2020). Therefore, it is to be expected that psychology students show more interest in the theory underlying an ADHD intervention than children.

At first glance, the results of this study appear to suggest that more background information is needed to increase the usability of this SCT app. However, extensive background information was purposely omitted since the app was originally designed for people with severe mental illness. These people may have limited cognitive capabilities and lower educational levels, which might lead to different demands regarding the level of provided information (Harvey, 2011). The wide variety of people who can benefit from SCT interventions emphasises the importance of tailoring the app to different users' needs. This is

also in line with one of the 10 usability heuristics for user interface design identified by Jakob Nielsen, namely flexibility and efficiency of use. He recommended to tailor the content to different types of users by providing opportunities for personalization and customization (Nielsen, 2020). Personalisation refers to changes in interface, information access, functionality and content to increase a system's relevance to an individual (Fan & Poole, 2006). By personalizing the app, more information could be offered to the users who are interested in gaining more knowledge while the app is kept simple for those who are not interested in gaining more insight. If the app can be tailored to different users' needs, a wider variety of users can benefit from the intervention.

Study Limitations and Strengths

One of the strengths of this study is that it mainly included psychology students. Therefore, the sample used in this study is very representative of that specific population, making it more appropriate to generalize the present findings to other psychology students with ADHD. Due to this strong focus on psychology students, however, there might be a bias when trying to generalize the findings to the broader population of university students with ADHD. Especially preferences regarding the desired amount of background knowledge might differ since it is to be expected that psychology students have a higher interest in such topics (Jacobsen & Diseth, 2020). Future research should assess the usability of this app using a more diverse sample of university students with a wider age span and in different areas of studies.

Similarly, every participant in this study takes medication or is involved in other ADHD treatments. This exclusive focus on people with ADHD who are taking medication makes the findings more applicable to that specific group. However, the answers might not be generalizable to people with ADHD who are not involved in treatments, since these people might experience stronger symptoms which could lead to different needs concerning usability

(Sandhu & Poulton, 2021). Future research should be conducted with people with ADHD who are not involved in medical treatment to make sure they yield similar results.

Furthermore, the interviews in this study required participants to verbally express their thoughts regarding the app in front of the researcher. Therefore, there might have been perceived pressure to give positive feedback to please the researcher. Future research could reduce this pressure by utilizing written feedback without direct contact between researcher and participants.

Conclusion

Overall, the SCT app showed a satisfactory usability for university students with ADHD. All participants were able to successfully use this app for 14 days and were mostly satisfied with their experience. There were, nevertheless, suggestions of improvement. However, these suggestions were mainly limited to minor adjustments to make the app even more convenient and pleasant to use. Since this study demonstrated sufficient usability, future research should focus on assessing the effectiveness of this SCT app for students with ADHD.

References

- Barkley, R. A., Fischer, M., Smallish, L., & Fletcher, K. (2002). The persistence of attention-deficit/hyperactivity disorder into young adulthood as a function of reporting source and definition of disorder. *Journal of Abnormal Psychology, 111*, 279-289.
- Baumeister, R. F., Vohs, K. D., & Tice, D. M. (2007). The strength model of self-control. *Current Directions in Psychological Science, 16*, 351–355.
- Beames, J. R., Schofield, T. P., & Denson, T. F. (2017). A meta-analysis of improving self-control with practice. *Routledge international handbook of self-control in health and well-being*, 405-417.
- Binhadyan, B., Davey, B., & Wickramasinghe, N. (2016). How e-mental health services benefit university students with ADHD: A literature review. *arXiv preprint arXiv:1606.00876*.
- Braun, V., & Clarke V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 2*, 77-101.
- Brooke, J. (1996). SUS-A quick and dirty usability scale. *Usability evaluation in industry*, 189(194), 4-7.
- Daly, M., Delaney, L., Egan, M., & Baumeister, R. F. (2015). Childhood self-control and unemployment throughout the life span: Evidence from two British cohort studies. *Psychological Science, 26*, 709–723.
- Denson, T. F., Capper, M. M., Oaten, M., Friese, M., & Schofield, T. P. (2011). Self-control training decreases aggression in response to provocation in aggressive individuals. *Journal of Research in Personality, 45*, 252–256.
- Duckworth, A. L., & Seligman, M. E. P. (2005). Self-discipline outdoes IQ in predicting academic performance of adolescents. *Psychological Science, 16*, 939–944

- DuPaul, G. J., Weyandt, L. L., O'Dell, S. M., & Varejao, M. (2009). College students with ADHD: Current status and future directions. *Journal of Attention Disorders*, 13, 234-250.
- Eme, R. (2016). The neuroscience of adhd, the paradigmatic disorder of self-control. *Journal of Law and the Biosciences*, 3(2), 350–354. <https://doi.org/10.1093/jlb/lsw014>
- Fan, H. & Poole, M. (2006). What is Personalization? Perspectives on the Design and Implementation of Personalization in Information Systems. *Journal of Organizational Computing and Electronic Commerce*, vol. 16, no. 3&4, pp. 179-202.
- Finkel, E. J., DeWall, C. N., Slotter, E. B., Oaten, M., & Foshee, V. A. (2009). Self-regulatory failure and intimate partner violence perpetration. *Journal of Personality and Social Psychology*, 97, 483–499.
- Friese, M., Frankenbach, J., Job, V., & Loschelder, D. D. (2017). Does self-control training improve self-control? A meta-analysis. *Perspectives on Psychological Science*, 12(6), 1077-1099.
- Hagger MS, Wood C, Stiff C, Chatzisarantis NLD. Ego depletion and the strength model of self-control: A meta-analysis. *Psychol Bull [Internet]* 2010;136(4):495–525. [doi: 10.1037/a0019486]
- Haghbin, M., Shaterian, F., Hosseinzadeh, D., & Griffiths, M. D. (2013). A brief report on the relationship between self-control, video game addiction and academic achievement in normal and ADHD students, *Journal of Behavioral Addictions*, 2(4), 239-243.
- Harbour, W. (2004). *The 2004 AHEAD survey of higher education disability service providers*. Waltham, MA: Association on Higher Education and Disability.
- Harvey, P. D. (2011). Mood symptoms, cognition, and everyday functioning: in major depression, bipolar disorder, and schizophrenia. *Innovations in clinical neuroscience*, 8(10), 14.

- Hazarika, B., Karimi, J., Khuntia, J., & Parthasarathy, M. (2015). Technology Frustration and Consumer Valuation Shift for Mobile Apps: An Exploratory Study.
- Jacobsen, A. M., & Diseth, Å. (2020). Why Choose Psychology? An Investigation of Norwegian High School Students. *Psychology Learning & Teaching, 19*(2), 128-142.
- Kip, H., Da Silva, M. C., Bouman, Y. H., van Gemert-Pijnen, L. J., & Kelders, S. M. (2021). A self-control training app to increase self-control and reduce aggression—A full factorial design. *Internet interventions, 25*, 100392.
- Koi, P. (2020). Born which Way? ADHD, Situational Self-Control, and Responsibility. *Neuroethics, 1-14*.
- Lal, S., & Adair, C.E. (2014). E-Mental Health: A Rapid Review of the Literature. *Psychiatric Services (65:1)*, pp. 24-32.
- Lewis, J. R. (2018). The system usability scale: past, present, and future. *International Journal of Human-Computer Interaction, 34*(7), 577-590.
- McGillivray, J.A., & Baker, K.L. (2009). Effects of comorbid ADHD with learning disabilities on anxiety, depression, and aggression in adults. *Journal of attention disorders (12:6)*, pp. 525-531.
- Miles, E., Sheeran, P., Baird, H., Macdonald, I., Webb, T. L., & Harris, P. R. (2016). Does self-control improve with practice? Evidence from a six-week training program. *Journal of Experimental Psychology: General, 145*, 1075–1091.
- Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., Harrington, H., . . . Caspi, A. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *Proceedings of the National Academy of Sciences, USA, 108*, 2693–2698.
- Muraven, M., Baumeister, R. F., & Tice, D. M. (1999). Longitudinal improvement of self-regulation through practice: Building self-control strength through repeated exercise. *The Journal of social psychology, 139*(4), 446-457.

Nielsen, J. (2012, Januar 03). *Usability 101: Introduction to Usability*.

NN/g. <https://www.nngroup.com/articles/usability-101-introduction-to-usability/>

Nielsen, J. (2020, November 15). *10 Usability Heuristics for User Interface*

Design. NN/g. <https://www.nngroup.com/articles/ten-usability-heuristics/>

Orman, J., O'Dea, B., Shand, F., Berk, M., Proudfoot, J., and Christensen, H. (2014). e-Mental health for mood and anxiety disorders in general practice. *Australian Family Physician* (43:12), pp. 832-837.

Piquero, A. R., Jennings, W. G., Farrington, D. P., Diamond, B., & Gonzalez, J. M. R. (2016).

A meta-analysis update on the effectiveness of early self-control improvement programs to improve self-control and reduce delinquency. *Journal of Experimental Criminology*, 12, 249–264.

Pope, D.J. (2010). The impact of inattention, hyperactivity and impulsivity on academic achievement in UK university students. *Journal of Further and Higher Education* (34:3), pp. 335–345.

Powell, L., Parker J., Robertson N., Harpin V. (2017). Attention Deficit Hyperactivity Disorder: Is There an App for That? Suitability Assessment of Apps for Children and Young People With ADHD. *JMIR Mhealth Uhealth*, 5(10):e145

Sandhu, A., Toll, J., & Poulton, A. (2021). A community survey of adults with attention deficit hyperactivity disorder (ADHD) and their experience of medication effectiveness. *Australasian Psychiatry*, 29(1), 75-79.

Sauro, J., & Lewis, J. R. (2016). *Quantifying the user experience: Practical statistics for user research*: Morgan Kaufmann.

Seymour K.E., Macatee R., Chronis-Tuscano A. (2016). Frustration tolerance in youth with ADHD. *J Atten Disord*.

- Smith, T., Panfil, K., Bailey, C., & Kirkpatrick, K. (2019). Cognitive and behavioral training interventions to promote self-control. *Journal of Experimental Psychology: Animal Learning and Cognition*, 45(3), 259.
- Someren M, Barnard Y, Sandberg J. (1994). *The Think Aloud Method - A Practical Guide to Modelling Cognitive Processes*.
- Tangney, J. P., Baumeister, R. F., & Boone, A. L. (2004). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *Journal of Personality*, 72, 271–324.
- Whittaker, R., Merry, S., Stasiak, K., McDowell, H., Doherty, I., Shepherd, M., Dorey, E., Parag, V., Ameratunga, S., and Rodgers, A. (2012). MEMO—A Mobile Phone Depression Prevention Intervention for Adolescents: Development Process and Postprogram Findings on Acceptability From a Randomized Controlled Trial. *J Med Internet Res* (14:1), 2012/01/24, p. e13.
- Wiklund, P.E., M.E., Kendler, J., & Strohlic, A.Y. (2010). *Usability Testing of Medical Devices* (1st ed.). CRC Press. <https://doi.org/10.1201/b10458>
- Wolfe, R. N. & Johnson, S. D. (1995). Personality as a predictor of collage performance. *Educational & Psychological Measurement*, 55, 177–185.

Appendix

Appendix A. Information Sheet and Informed Consent.

Dear Participant,

The aim of this research is to test the usability of a mobile application (app). This app is aimed at improving self-control by overriding dominant responses. More specifically, you will be asked to use your non-dominant hand during different activities each day, like opening doors with your non-dominant hand.

During this research, you will be asked to download this app and use it for 14 days. You will be asked about how you perceive and evaluate the application, using audio-recorded online interviews and a questionnaire. The goal of this study is to see whether the application is easy, safe and pleasant to use, which will help the optimization process and ultimately improve user satisfaction and effectiveness. Furthermore, you will get to train your self-control.

In the first session, you will be introduced to the application and will be asked to use certain features of the app while saying out loud what your first impression is. This session will take place online and will be audio-recorded. Afterwards, you will use the app for 14 days. The last session will consist of an audio-recorded online interview about how you perceive and evaluate the application, and you will be asked to fill in a questionnaire consisting of Likert scales. All audio recorded data will be transcribed and deleted after the writing process is finished. Each of the sessions will take approximately 20 minutes.

You can withdraw from participation at any time and do not need to provide a reason. Your answers will be anonymized, safely stored, and accessed exclusively by members of the research team. The application you are going to test during this study might use your personal data (e.g. device information). This study has been reviewed and approved by the BMS Ethics Committee.

In case you have any questions about your participation you can send me an e-mail to the researcher: n.bollmann@student.utwente.nl

If you have questions about your rights as a research participant or wish to obtain information, ask questions, or discuss any concerns about this study with someone other than the researcher, please contact the Secretary of the Ethics Committee of the Faculty of Behavioural, Management and Social Sciences at the University of Twente by ethicscommittee-bms@utwente.nl

Consent Form for: What is the Usability of a Self-Control Training App for Students with ADHD?

YOU WILL BE GIVEN A COPY OF THIS INFORMED CONSENT FORM

Please tick the appropriate boxes

Yes No

Taking part in the study

- | | | |
|--|-----------------------|-----------------------|
| I have read and understood the study information dated [DD/MM/YYYY], or it has been read to me. I have been able to ask questions about the study and my questions have been answered to my satisfaction. | <input type="radio"/> | <input type="radio"/> |
| I consent voluntarily to be a participant in this study and understand that I can refuse to answer questions and I can withdraw from the study at any time, without having to give a reason. | <input type="radio"/> | <input type="radio"/> |
| I understand that taking part in the study involves an audio-recorded interview which will be transcribed and deleted, filling in written questionnaires and downloading an application onto my smartphone device. | <input type="radio"/> | <input type="radio"/> |

Use of the information in the study

- | | | |
|---|-----------------------|-----------------------|
| I understand that information I provide will be used for the writing of a thesis. | <input type="radio"/> | <input type="radio"/> |
| I understand that personal information collected about me that can identify me, such as [e.g. my name or where I live], will not be shared beyond the study team. | <input type="radio"/> | <input type="radio"/> |
| I agree that my information can be quoted in research outputs | <input type="radio"/> | <input type="radio"/> |

Future use and reuse of the information by others

I give permission for the anonymized transcripts that I provide to be archived in [*name of data repository*] so it can be used for future research and learning.

I give permission for the answers to the questionnaires that I provide to be archived in [*name of data repository*] so it can be used for future research and learning.

Signatures

Name of participant [printed] Signature Date

I have accurately read out the information sheet to the potential participant and, to the best of my ability, ensured that the participant understands to what they are freely consenting.

Nele Bollmann Signature Date

Study contact details for further information: Nele Bollmann,
n.bollmann@student.utwente.nl

Contact Information for Questions about Your Rights as a Research Participant

If you have questions about your rights as a research participant, or wish to obtain information, ask questions, or discuss any concerns about this study with someone other than the researcher(s), please contact the Secretary of the Ethics Committee of the Faculty of Behavioural, Management and Social Sciences at the University of Twente by ethicscommittee-bms@utwente.nl

Appendix B. Think-Aloud Method Scenarios

1st Session:

1. During the new two weeks, you will receive challenges to train your self-control. Imagine that you are wondering how much effort this will take. Try to find out how many challenges will be issued.
2. You found Scipp the Self-control App in the Play Store, but you are unsure of what this app does exactly. Try to find out what the app does.
3. Imagine that you have explored all functions of the app. Try return to the home screen and close the app.

2nd Session:

1. Throughout the past weeks you have been using this app. You now want to reflect on the challenges you completed. Search within the app for information about your completed challenges.
2. Imagine, while setting up this app, you accidentally indicated the wrong hand as your dominant hand. You now want to change this. Find a way to change the dominant hand setting within this app.
3. After using this app for some time, you now want to look back at why you started using it in the first place. Try to use this app to figure out what your initial motivation for training self-control was.

Appendix C. System Usability Scale.

	1 Strongly Disagree	2	3	4	5 Strongly Agree
1. I think that I would like to use this system frequently.					
2. I found the system unnecessarily complex.					
3. I thought the system was easy to use.					
4. I think that I would need the support of a technical person to be able to use this system.					
5. I found the various functions in this system were well integrated.					
6. I thought there was too much inconsistency in this system.					
7. I would imagine that most people would learn to use this system very quickly.					
8. I found the system very cumbersome to use.					
9. I felt very confident using the system.					
10. I needed to learn a lot of things before I could get going with this system.					

Appendix D. Interview Transcripts.**Participant 1**

Session 1

Researcher: So just imagine you're trying to find out how many challenges there will be.

P1: Challenges? Yeah, I'm...14, I think.

Researcher: Where did you see it?

P1: In the overview, when I click on the overview it states that I've had zero days completed and it's a mountain and it leads to the moon and there are 14 steps, so I would guess there are 14 days for challenges.

Researcher: What are you thinking now that you accessed this function?

P1: I think it's pretty straight forward and it's actually motivating and it just adds up my path about climbing a mountain and just actually achieving something and I think it's a great feeling. A feeling of accomplishment and I think it actually helps me to see an overview. Like you're walking up to a mountain. There is a clear pathway so it's straightforward. It's quite oriented and I really like this, since it's pretty structured. It's gonna help you keep an overview, so yeah.

Researcher: Thank you for the information. Imagine you just randomly found the app at the play store and you're unsure what it actually does. Try to find out within the app what it does.

P1: There is actually a function that states what the app does, stated in Dutch. Yeah, you actually have an achievement for each day and there's an example so it's pretty straightforward and then you go to the next slide and it states that you have to do this task through the whole day and there are like little pictures and I really like this. There is little information per page but it actually adds up to the most necessary things of the app in the few screens, so yeah. It's actually also the whole process from start to the end. And you can look up the information of the app on the whole screen.

Researcher: Now imagine you're done familiarizing yourself with the app and you want to return to the home screen and then close the app.

P1: Allright. That was easy.

Researcher: Now I still have some follow up questions for you. So what's your first impression of the app?

P1: It's amazing. I really liked it. It's so useful for me right now, I would say. So I'm pretty excited about using this app for like 2 weeks and maybe even longer if it's possible.

Researcher: And what's your first impression of the design?

P1: It's pretty minimalistic and straightforward and it's really a good thing since I've actually yesterday tried an app which had, like, the same goals and then you had to fill in, like, one goal and then there were more steps you had to do. And more steps and more steps. And it was so much effort to understand how and why it's going to help me. I just stopped thinking that it's going to help me, so it seems to me it actually does not contribute to my goal it actually does the opposite. But this app actually helps me structure and become oriented because it's only the explanation and your progress and that's really nice.

Researcher: So you like that it's quite simple?

P1: Yeah.

Researcher: And are there things that you dislike about the design?

P1: No, I think it's pretty cute.

Researcher: And how was your experience registering?

P1: It's just setting it up so pretty straightforward but right now I'm in a call so I'm not really reading through all of this.

Researcher: Yeah, this is just about, like, your first impression. Of course in the next session we're gonna go a bit more in depth once you've seen more functions of the app and everything. Yeah, so do you think it'll be easy to learn how to navigate this app?

P1: Yeah, yeah. It actually shows in steps like how you are going to use the app. So if you complete one step then you get to the next. There are only small pieces of information and I think this pretty desirable, yeah.

Researcher: And do you feel motivated to use the app during the next few days?

P1: Yeas, definitely.

Researcher: Can you maybe just again state like one specific thing that makes it feel motivated or several things, like, about the app that you thought were motivating.

P1: What's motivating is the simplicity, I would say. The straightforwardness and the goal orientation and actually the graphics a bit, too. And the goal orientation in the graphic is a strong point too.

Researcher: In which way is there a goal orientation in the graphics?

P1: The graphic goes up in the mountains. Like you have a path in mountains and you actually climb to the top, so you see your progression and you see these small steps and you see that you're like walking around. You're really going somewhere. And it really contributes to the process of actually achieving something.

Researcher: OK and do you think there could be some changes done to make it even more motivating just based on your very first impression?

P1: I would say put the goal in the main screen that would be cool. Like, if you have the mountain and the task... in the middle like a little circle or something to keep it straightforward. Then you have the goal you're working towards. This would be a nice addition.

Researcher: Thank you. And just, like, in general if you look back on, like, apps you previously used. Do you feel like there are certain patterns or certain things that make you feel motivated about apps or things that don't make you feel motivated?

P1: I would say I'm not really motivated by apps that use crazy bombing of information. Then I first have to learn how to use the app and it's not like I have to use these apps, like it's not a necessity. So if I first have to sort out everything about the app, then I'm not really looking

forward to using it. So too much information at the beginning or ads or a messy structure structure or not having a main screen.

Researcher: And how does it apply to this app? Do you think it applies to this app?

P1: No, not at all. This one is actually, yeah, I think the opposite.

Session 2

Researcher: So the 1st scenario is: You've been using this app for a couple of days now. So now you want to reflect on all of the challenges you completed. So now you are searching within the app for information about your completed challenges.

P1: So I click on overview. Then I get this...I got it. All right, yeah.

Researcher: And what are your thoughts about this?

P1: It's clear and accessible and it's nice that the dog is, like, on top of the mountain. It's pretty cute.

Researcher: So the 2nd scenario is imagine while setting up this app you accidentally indicated the wrong hand as your dominant hand. So now you want to change this. So look within the app for an opportunity to change the setting.

P1: I think it's in the menu and then I go to settings, then just... yeah so now I changed my hand.

Researcher: And can you return to the home screen now, yeah. And then you can set the handsetting back if you want to. Oh, just excused the noise in the background. I think it'll go away soon. OK, alright, sorry for that. So the scenario is after you're done using this app, you now want to look back at why you started using it in the 1st place. So try to use the app to figure out what your initial motivation was for training self control.

P1: Yeah, go to menu and then I got it, OK.

Researcher: And what are your thoughts while accessing this function?

P1: That's pretty accessible. The whole app is.

Researcher: Right then, yeah, we're done with the scenarios. And then I would just continue and ask you some questions and it would be great if you would give me as much information as possible. It's also possible that some of the questions are a bit repetitive but it's really just to get all of the information we need. So don't be irritated by that if some question sounds quite similar. Alright, so yeah the 1st question is just what your impression of this app after using it for 14 days?

P1: Yeah, yeah. I think it's pretty user friendly and accessible. Really, the push messages are like in place they really help you and it's all straightforward and there's like...it's pretty nice colors and this dog is pretty cute and I don't know it's just like positive arrangements.

Researcher: So did you enjoy using it?

P1: Yeah, yeah. Especially in the beginning since I was really focused on it but then I started with like moving houses and like doing all this painting and stuff so I was not really into this app since it was not my priority but in the 1st week I was pretty, like, motivated.

Researcher: OK, alright thank you. And do you feel like you learned something from using this app?

P1: Yeah, I was actually thinking about if this was really, like if you really wanted to assess the app or maybe something else, in the beginning. Since I actually noticed that I really often use my left hand when I'm distracted by something so I open the door or turn on the light and when I'm not like in the moment. When I'm thinking about other things or am distracted I opened the door with my left hand so I was thinking maybe you are assessing that or something, I don't know. Yeah, it was like especially when eating when I'm talking to someone I switch my fork to my left hand because it's not like my priority at the moment and a I was thinking maybe it has something to do with distractibility and you know but it was interesting, maybe I do some research.

Researcher: Yeah, alright and otherwise? Have you learned anything else from using this app?

P1: Yeah, probably, yeah. I actually knew it already that when you try to change your habits you have to change like a few things in in your life when you pay attention to it and using your left hand with everything makes you more, like, in tune to what you are doing in life in general. So you are, like, more mindful when you try to switch habits.

Researcher: Thank you. And do you feel like this app is appropriate for people with ADHD?

P1: Yeah, yeah. I think there should be many more apps like that this because it's like to the point and straight forward, so no extra functions, no distracting abilities. Just this thing and it's what's lacking in the world. I actually have so much trouble I found out especially in the coronavirus, with like a brain with 20 tabs open and then you have, like the world where you have 20 tabs on your computer and it's like why isn't it straightforward? Why not just one thing and this app actually does 1 thing and it's so nice. I would really like to have apps like this and functionalities like this in a world more.

Researcher: Great, thank you and after using this app do you feel like the tasks have relevance for people with ADHD?

P1: I don't know specifically but I think for many people it is useful to be, I guess checking our habits but I don't know if it's like specific to ADHD.

Researcher: Have you encountered any difficulties during the last 14 days while using this app?

P1: Yeah, the difficulties were, like, when I was not totally focusing on the task because I had like pretty important things to do and it was all exciting and stuff and then you really were not focused on this. And something that was like with tying, I don't know. Something I did not have. Because I had sports clothes on because I was painting: So I couldn't really do that challenge.

Researcher: So you made the observation that sometimes the tasks aren't really applicable to everyday life?

P1: I had a sports leggings and so I didn't really use this challenge.

Researcher: And did you have any difficulties navigating the app?

P1: No no this was actually amazing, what I said. Many more apps should function like this. Even the UT apps and stuff.

Researcher: OK, perfect. And do you feel like there might be other people who would come across barriers while using this app?

P1: I think the barriers would be in everyday life some of those tasks aren't really applicable but I don't really think so. Something I also noticed, something with eating, like I also have my fork and a knife like the other way around so it was kind of easy but it's just like a habit but yeah I've trained myself a bit too. So maybe other people have habits like this too.

Researcher: Yeah, and what's your opinion regarding the design?

P1: Amazing. Yeah, yeah. Straight forward, really useful, happy colors. Really nice!

Researcher: And do you have any suggestions for improvement regarding the design?

P1: No, not regarding the design. It's actually so nice.

Researcher: Okay, and how did it go for you just like being able to access the daily challenges? P1: The challenges...now I woke up and I got the push message and I looked at it and I tried to implement it in daily life so yeah, easy.

Researcher: OK , perfect and what about the daily reminders? How was your experience with that?

P1: Nice, especially in the later days then it was like oh o, I've got to keep doing this. And when you got to do new stuff it's kind of hard but I think it's in a based on habits, so yeah. but yeah that's difficult when you do not really have your daily habits for some days.

Researcher: And you mentioned that you kind of got distracted by, like, all of your work with moving. Did the reminders help you in that case or did they not help you that much?

P1: Yeah, yeah yeah I was not always on my mobile phone of course but when I saw it I was like: OK, yeah. I have to implement it.

Researcher: Is there anything you think that could be done to make it even easier to not forget about the tasks?

P1: No, I don't think so. I think when you get too much push messages you are not really motivated. So I think this is nicely done.

Researcher: OK and what's your opinion regarding the mascot?

P1: It's so cute! Yeah, I really like it. I don't know. It's like bowling or something it's pretty cute it's like a fluffy cute little animal. I would like to buy it and just have it. I don't know. It has a relaxing, like a calming nighttime effect. I think also for children it's a cute dog. So it's fine.

Researcher: Do you think it's easy to relate to the dog?

P1: Oh, I think it actually...I don't know. The dog gives off a vibe of being at ease...of being peaceful and it actually helps me I think but it's hard to relate I would say since I'm not already that at piece. I have a tendency to just run through the day and just do everything at

more of a fast pace and this really has this, yeah, calming vibe which is useful but not really relatable.

Researcher: OK, yeah, alright and did the app feel personalized to you?

P1: Yeah I liked the dog so I think dogs are cute. I also liked the colors, so yeah it felt personal but I think it's the same for everyone. But yeah.

Researcher: So you felt...if I get it correctly you felt like the app was sufficiently personalized?

P1: Yeah, yeah.

Researcher: Alright and do you have any suggestions on how the app could be more personalized?

P1: Maybe colors settings or something that you can set your preferable colors or maybe in the 1st week have different colors and just like move slightly upwards or something. Like when you move upwards to the mountain...yeah...the shades of the colors go light or darker or to have a light or dark mode. I think some people prefer to have a dark mode setting. I do not but I think it could be useful.

Researcher: Yeah, alright, thank you.

P1: But it actually has more options, so it's like more elaborate already. So that's a difficulty I think.

Researcher: You mean because then it might be overwhelming?

P1: Yeah if you have too many options I think that's the power of this app. That it's so straightforward and it's like ? it all over then it would maybe lose it's power.

Researcher: OK, thank you and then the last question is whether you think that this app offered a good balance between offering you theoretical background knowledge but also requiring you to be active.

P1: Yes, actually motivates me to be active and I don't really think it had that much background info. Like, I got it from you but not really from the app since it's like your input and your goal and then it says what you have to do so you're motivated and you're activated but not really why. No. You just do it and you know why you do it but I think only the app is not enough information on why exactly you do it.

Researcher: Do you think it would be a good idea to offer more theoretical background knowledge or do you think it's not necessary?

P1: Uhm, maybe at start of each day then state why you do it or with a small quote like when you get prescribed the task and then you go to the next screen when you click on accepting the task then it's stated to why you do it and what kind of improvement you are making or more like the theory behind why you are doing this task.

Researcher: Alright, thank you for your suggestions. Then I think we can go ahead to the last part of this interview. I will just read out some sentences, some statements to you and then you can tell me whether you agree with it or not on a scale from 1 to 5. So 5 is I agree a lot and then one is I don't agree. And I might just ask you some follow up questions after you

stated how much you relate to those statements. So the 1st statement is: I think that I would like to use the system frequently.

P1: Yeah, yeah. I think 4 I would say.

Researcher: How often is frequent for you? How often would you like to use it?

P1: Yeah maybe with different functionalities I would say daily. It would be nice to have like a daily task.

Researcher: And what exactly makes you feel like you would like to use it frequently?

P1: It feels useful. It feels like it's in line with the goals I want to achieve in life and gives me motivators so I think it's like an aid that helps me see an the overview and a goal when I go and that's nice.

Researcher: And what would have to happen in order to make it a five? Are there any specific things or...?

P1: Multiple task and more information, I think on the...what I stated on the process and why you are doing this. Like you have all left hand stuff and I think when you're using it more often than you have other habits changing with not only left hand but also other daily activities that you change.

Researcher: OK Good then the 2nd statement is I found the system unnecessarily complex.

P1: No, not at all. I think one.

Researcher: OK so just a follow up question. In general, when you look back at different apps that you've used throughout your life, are there specific things that you see in apps that make them unnecessarily complex?

P1: Yeah, many many options and adjustments and settings and having click on a few things in 1 screen so in this app you go from screen to guided. You get guided through the information and it's proficient information of really small bits and in unnecessary complicated apps there's like 1 page with really many functions and a lot of Information and that's really not that's yeah, it doesn't really work.

Researcher: And then the next statement would be I thought the system was easy to use.

P1: Yeah.

Researcher: Which number would you give it?

P1: Five.

Researcher: Do you think that something could be done to make it even easier to use?

P1: I think that's hard.

Researcher: OK, alright. So I think that we can just move on to the next statement which is: I think that I would need the support of a technical person to be able to use the system.

P1: No, not at all. Then one.

Participant 2

Session 1

Researcher: So the 1st scenario is: During the next few weeks you will have time to complete different challenges. You want to know how many challenges there are. Try to find out how many challenges there are using the app.

P2: Okay, so I am at the menu now. The menu's fine. I mean I was supposed to say anything ...OK. I like the color sceme. And OK so the "Overzicht", I don't know if you understand what it means but it's pretty clear. It's pretty clear to find. It's the homepage, so yeah, I think there are 14 days of challenges or something and yeah it's pretty clear.

Researcher: OK, great, thank you. The next scenario is: imagine you found this app on the play store without knowing what it's about. You downloaded it and now you're unsure what exactly it does. Try to find out what it does using the app.

P2: Probably, I have to go to the menu. I mean, oh well, "what does this app do". Um yeah, OK, so you get challenges everyday. You try to do the challenges of the day. It sends notifications. It's also a review and it gives notions to self reflect or something, right? At the end of the day... yeah, okay. Nice. Alright, and then the next day, the next thing is ready... challenge is ready. Yeah, I mean it's... I think that's pretty clear. It's pretty self explanatory. Yeah, I also like the dog who gives an extra comment.

Researcher: OK, thank you. So, the last scenario is: Imagine you're done familiarizing yourself with this app. You try to return to the home screen and afterwards close the app.

P2: I am sorry, could you repeat that?

Researcher: Imagine you're done familiarizing yourself with this app. You want to return to the home screen and afterwards close the app.

P2: So go back here and go to the the home screen. And then, if I want to close the app I'll just exit right? Yeah, it's OK, that's done

Researcher: Ok, perfect! Then I just have a couple of follow up questions. We're done with the scenarios. You've used the app for just a few seconds, but this is just about you 1st impression and then in the 2nd session we're going to talk more about the in-depth impression, after you used it you used it more. But yeah, what's your general 1st impression of the app?

P2: I think it's a well designed app, I think. Let's see. Yeah, looks professional. I think it would be nice to, I mean of course it's just for an impression, this App, for you as well, to have, like OK, so it's 14 days but maybe, more perspective, look at how can it help me or what are the challenges after the 14 days? I guess. I like the color scheme.

Researcher: Ok, it's nice to hear. Are there any aspects of the design you disliked?

P2: Let's see... I think it's a bit unclear how the app registers if you've completed the challenge. Researcher: So that was something you found confusing so far?

P2: Yeah, just a little bit. I mean it's not, yeah, it's just a little bit. So, for example it says...so, the door challenge, when you press okay, but is registering it now, or how do you go from there?

Researcher: Okay and in general, how was your experience registering?

P2: Yeah, I mean that was with the weird buttons that don't have the functionality that they should have. But even then it was pretty self explanatory. The buttons are pretty mallow, so they described themselves so it was not how it was supposed to look.

Researcher: So you mean that it's hard. The thing with the language of the app. I guess if I wouldn't have told you, you probably wouldn't have found out that it's about the language of the phone?

P2: Yes.

Researcher: And do you think for the future, for the next few days, that it will be easy to learn how to navigate the app?

P2: Oh yeah!

Researcher: Could you repeat it, sorry. The voice froze.

P2: Yeah, I think I can manage.

Researcher: And do you have any suggestions on what could change, maybe, to make it easier to navigate this app?

P2: Well maybe not have that language thing. So..not really, no. It's pretty intuitive for navigation.

Researcher: And do you feel like after having a first look at the app, that you feel motivated to use it during the next few days?

P2: Sure, I'd like to try. As you know, I've got ADHD, so pretty much everything with self control is, well, worth a try.

Researcher: And was there anything about the app that made you feel motivated, like, after looking at it. Specific features, like maybe a specific feature about the app that makes you feel motivated to use it in the future.

P2: It's like OK, the feature why train self control? Yeah I mean it explains why you would train self control and of course I mean people with ADHD know they have a problem with self-control. OK, so ya I mean, so it's a good reminder and it says that, it says that it could help potentially with the issue of self control. Yeah, so maybe that feature, it motivates, yeah.

Researcher: Okay, thank you. Yeah, just if you look bad back at different apps you used in the past, is there something in general that you noticed that makes you feel motivated to use apps.
P2: Well, I used to play mobile games and I used to play them because they were addicting. So I mean...that's pretty much a feature of it. I don't know if you'll call it a feature but yes that is one thing those apps makes you want to use them again.

Researcher: If you call them addicting, is there, like, a specific thing about it?

P2: Hm. Like, the instant rewards, pretty much. So yeah, it has to do self control actually. Well, I think that's pretty funny and obviously, some apps you just have to use and are pretty much mandatory for study or work or something like that and some apps you know, like, I don't know, Instagram or Facebook or YouTube or stuff like that, it's just, you know, you're expected to have it and there's social pressure, I guess.

Session 2

Researcher: OK good so the first scenario is: you've been using this app for quite a while now. You now want to reflect on the challenges you completed. Search within the app for information about your completed challenges.

P2: OK completed challenges. So yeah. OK, so I just go to the oversight thing, you know on the start page and then just click it and well I can press on all the start and things are not simply the challenges right yeah

Researcher: Do you have any thoughts about this process?

P2: No, no. Let's see, maybe it should ... I don't know if it was mentioned in the explanation or something and if I cannot remember that it was said that when you press on like one of those stars that you see what has happened on that day. No, it's fine it's pretty intuitive so. But maybe it could help just a little bit at the beginning or something.

Researcher: Alright, thank you then we can move on to the second scenario which is imagine you're setting up this app you accidentally indicated the wrong hand as your dominant hand you now want to change this. So find a way to change the dominant hand setting within the app.

P2: Probably settings...change...Oh yeah OK so are you left or right? I'm right, OK. Well that's pretty easy.

Researcher: Yeah and then you can return to the home screen...do you have any thoughts about this?

P2: it's pretty easy to do. It's just maybe instead of naming it settings maybe just change left or right hand or something because it's really only one function so it's not settings it's done and so it's only you know pretty much just one function which could also be just one the full explanation or how do you say that just the name of the process I'm not sure if I'm being clear

Researcher: Yeah, I understand it. Then the last scenario is after using this app for some time you now want to look back at why you started using it in first place. Try to use this app to find out what your initial motivation was to train your selfcontrol.

P2: OK, so why do I want to control them yeah and then I found it.

Researcher: Any thoughts?

P2: No, it's, it's easy to find that's for sure. Yeah I mean it's it's pretty clear now. No thoughts actually.

Researcher: OK great thank you then I will just continue with some more general questions. Some of them might seem a bit repetitive so don't be irritated by that it's just because we need as much information as we can get. Every feedback helps so yeah feel free to name any negative or positive thoughts. Yeah OK then the first question is what is your first impression of the app or like your impression of the app after using it for 14 days

P2: I like the concept. It's just I don't know if I would continue using it because it's it's a little bit difficult to to remind myself throughout the day too keep doing the challenges that's what I would say.

Researcher: What would help?

P2: I don't really sure actually because I mean there were multiple reminders and notifications throughout the day and they helped somewhat but it's not like it at least for me it doesn't stay in my head. So I see it in the notification I think: Oh yeah I I should be doing this. And then I go downstairs and I don't know to open the drawer or whatever and then I forgot to do it. it sounds sometimes I do it sometimes I'm like oh I opened rush it I was supposed to do this today yeah

Researcher: And did you enjoy using the app?

P2: Kind of. It's big words of course, I mean, well, I mean it wasn't stupid. Let's put it like that. So I'm I'm pretty neutral about it yeah.

Researcher: OK and do you feel like you learned something from using this app?

P2: Let's see. I had to think about how automatically like these processes actually go. I mean, that...that's something that it really did point out, yeah. That's yeah.

Researcher: And in general, do you feel like this app is appropriate for people with ADHD?

P2: In what way?

Researcher: Just in general, do you feel like it's fitting for people with ADHD?

P2: I mean, when it works yes. If it doesn't work no.

Researcher: And while using this app, did you feel like the tasks have relevance for people with ADHD?

P2: Maybe ... I'm not actually sure. I'm not sure. I'm also not saying that it doesn't but it's it's hard for me to find certain points for yes this is something like classically ADHD or something like that so that's a bit difficult for me to say.

Researcher: OK and did you encounter any difficulties while using this app?

P2: Only at the start but we already talked about that so but apart from that one when I installed it like correctly and everything and you helped me with that, no problem. Was pretty smooth. Smooth sailing from there.

Researcher: And did you experience any difficulties with the navigation of the app?

P2: No answered that was also clear.

Researcher: And do you feel like other people might face difficulties using this app?

P2: Well maybe only like the hand setting because normally settings is you know name games or time or whatever not like the the dominant hand thing. One idea...so maybe if yeah it would be stated also we can change hand that that would make it more OK but I cannot imagine anyone having difficulties.

Researcher: And what's your opinion regarding the design of the app?

P2: I like it. It makes me think of, I don't know why but it makes me think of a banking app like the color scheme.

Researcher: OK, interesting.

P2: I didn't know if you ... I'm not sure if you got any inspiration from that but it did it makes me think about that, yeah. I like that these are not like the the and the colors yeah.

Researcher: And do you have any suggestions for improvement regarding the design?

P2: Maybe the challenge of the day ... no no no not really. Actually, well maybe, maybe OK. Maybe the challenge of the day maybe like not a how do you say figure a drawing ideas that maybe just the text would make it lendrim clear so now apart from that I like it.

Researcher: OK thank you. And how was your experience accessing the daily challenges?

P2: Easy, Yep.

Researcher: And what was your experience regarding the daily reminders?

P2: Reminders? Also good. Sometimes a bit much but that's the point so it wasn't annoying or anything. It was more like: Oh yeah there are enough reminders throughout the day.

Researcher: And what's your opinion regarding the mascot?

P2: Yeah, I like it. Maybe there is some philosophy behind it does not get I mean it's it's so much drawing

Researcher: And do you think it's possible to relate to the dog?

P2: Relates to the dog?

Researcher: Or maybe that the dog helps you relate to the app?

P2: I didn't actually consciously think about it like before this but maybe yeah I I think it's I don't know the word but I think it's because the the the path with the stars and stuff and it will be a bit weird if it was just stars so like the dog was guiding, yeah. I, I guess I can OK.

Researcher: And did the app feel personalize to you?

P2: Personalized in what way?

Researcher: Just in general I feel like you know sometimes there are apps that are very personalized others are less personalized. Do you feel like yeah if you feel like it's personalized to you and your own needs and who you are?

P2: I mean, I'm not really able to change anything so in that sense no but it's not like I would actually want to change anything as well as.

Researcher: So you're saying that you're satisfied with the level of personalization?

P2: Yeah, yeah.

Researcher: Do you still have any suggestions for improvement when it comes to personalization?

P2: No.

Researcher: And do you feel like the app offered a good balance between offering you theoretical background knowledge but also requiring you to be active?

P2: I I don't actually think that because the theory isn't really explained as to why it would work so I mean that's...I'm not sure how anyone else would look at this but for me it's you know...pretty big part to know the logic behind the process and why it would work.

Researcher: So if I understand you correctly, you would want more background knowledge?

P2: Yes.

Researcher: Alright, thank you. Then we can move on to the next part of the interview. Some questions again might be a bit repetitive and this is mainly like scale questions so I will read a statement to you and then you can tell me how much you agree with this statement or not on a scale from one to five. So five is I agree a lot and then one is I don't agree at all and yeah then I might ask some followup questions based on your answer.

P2: So one is I don't agree 5 is I agree.

Researcher: Exactly. So the first statement is I think that I would like to use this system more frequently

P2: I think 3.

Researcher: OK, why?

P2: Well, it's well I...I'm sorry I actually had two because I don't I don't know why hearing behind it is still less clear to me so I don't know why it would do it so yeah

Researcher: Alright so your answer might change if you had more theoretical knowledge?

P2: Yes, yes.

Researcher: Then the second statement is I found the system unnecessarily complex

Researcher: why?

P2: It wasn't complex

Researcher: And in general if you look back at all different sorts of apps you've used in the past are there different factors you feel like that make apps complex or unnecessarily complex?

P2: Like too many menus and links and OK so you want to do this then you have for example I don't know I want to find an address then I first have to go to settings then order the menu and then the I know some other thing and then being and then then I can find a link that leads to the address so that's something that makes it a more complex. Too much text, too much imagery, too much well pretty much just things that are too much of anything.

Researcher: Yeah, alright then the next statement is I thought this system was easy to use.

P2: 5

Researcher: Alright. Are there specific features of the app or specific things about it that made it easy to use?

P2: Let's see. I mean the bottles are clear there are no options options telling me it is now what to do and they explain themselves shrink yeah I'd simply left it's just my sleeping paper

Researcher: And is there anything you could think of that could be done to make it easy even easier to use this app?

P2: No.

Researcher: Alright then we can move on to the next statement which is I think that I would need the support of a technical person to be able to use this system.

P2:

Researcher: What makes you feel like you don't need support in using this app?

P2: Because I figured it out myself. No technical person. So I'd say no.

Researcher: OK, alright yeah. The next statement is I found the various functions in the system were well integrated.

P2: What does that mean?

Researcher: if all of the functions the app offers like all of the pages are well connected to each other.

P2: Kind of I'd say. So, yeah.

Researcher: Like are there any specific functions you found well integrated or less well integrated?

P2: Maybe I just said that, I mean yeah I don't know. No no no everything is not.

Researcher: OK, so in general. How much do you agree with the statement that the functions are well integrated?

P2: I must go from one place

Researcher: Right and then the next statement is I thought there was too much inconsistency in this system.

P2:

Researcher: And in general, which factors do you think determine whether an app is inconsistent or not?

P2:

Researcher: Then I think we can just move on to the next statement which is I would imagine that most people would learn to use this system very quickly.

P2: Yeah, 5.

Researcher: What makes you think so?

P2: Because I did and it's pretty it's just not a lot of things going on so it's it's easy to to get the hang of it.

Researcher: Can you maybe think of a specific group of people who would struggle while using this app?

P2: Maybe people who don't even know the Internet but I also don't know how, yeah. Some people really don't even know how to Google anything so those people, yeah.

Researcher: Can you think of any solutions for those people? Things that will make it easier?

P2: Lead them through it, maybe. That's the only thing I can think of.

Researcher: OK then the next statement is I found this system very cumbersome to use.

P2:

Researcher: OK and in general in your experience what makes apps cumbersome to use?

P2: Too many login and verification pages and close it and you have to log in again and that's that's the big one, actually and things that don't load properly or take so long to load.

Researcher: And then the next statement is I felt very confident while using this system.

P2:

Researcher: OK, what made you feel confident?

P2: on the ease of it

Researcher: And in general, what do you need in order to feel confident about using an app?

P2: It's being easy to use. Yeah, it being easy to use.

Researcher: And did you have any specific experiences or did you find any elements within this app that make you feel confident about using it?

P2: Not consciously.

Researcher: OK, so it's more like a process and not really like you had one experience that stood out to you where you were like OK I get how this works now?

P2: Not that I can recall, no. I don't, I don't, I can't .

Researcher: And then the last statement is I need to learn a lot of things before I could get going with this system.

P2: One.

Researcher: OK, why?

P2: Because it wasn't necessary it's just you know just opened up and it's self-explanatory.

Researcher: And are there any things you would like to have learned before or while using this app?

P2: Why it works. Like the theory why it would work. The theory behind it that would be nice, yeah. Maybe it will be nice before like one of those menu things. Just links or the

websites or some sorts and just like...or purely research and theoretical stuff just so that some people can really read it.

Researcher: So you mean if you don't just want superficial information but actual articles or more scientific background?

P2: Yes.

Researcher: Alright, thank you.

Participant 3

Session 1

Researcher: So the 1st scenario is: During the next couple of days you're going to use this app and you're going to have to complete some challenges. Now imagine you don't know how many challenges there will be and you are trying to figure that out within the app. So search for information about how many challenges there are going to be within the app.

P3: So what I'm thinking about... I just already read that there will be a new task everyday and then the app will ask me at the end of the day how I was feeling with the task and I am thinking that there are tasks like open the door with the left hand instead of of the right hand or maybe cooking or brushing teeth with the left hand instead of the right hand.

Researcher: OK, great. And when you use the app, can you maybe try to search for information within the app that tells you how many challenges there will be?

P3: I need to look...14 yeah!

Researcher: What are you thinking so far?

P3: Yeah, for me it's good so far. I think that it will be interesting to use.

Researcher: Okay, now the next scenario is: just imagine you randomly found this app on the Play Store and you don't know what it's about. You just downloaded it and now you want to use the app to figure out what this app does at all. So that's your task. Figure out what this app does.

P3: OK, so now I'm in a situation that I don't know that it helps me with ADHD? I just randomly downloaded it. And I just found it, ok. First of all, I would read the introduction. That was the 1st thing I did before I could use the app. That was about yeah, yeah, to um...have more self control and that the app helps me to have more self control in daily life and this is possible, like I said, with using the non dominant hands in daily life and that the app is like a challenge with a new task each day and this task will help me to have more self control. That was very well described at the beginning and there was really a nice introduction because I directly get what the app is about. It was illustrated very nice. I thought the dog was really creative and yeah. It was really nice.

Researcher: And maybe now if you have the app, maybe you can also again look for information about what this app does?

P3: There is a picture that I see of the hills. The illustration of the hills and the moon and there are steps. OK, the 1st step is to open the door with the non-dominant hand. So I am clicking okay. OK, and the 2nd step is eating with the non-dominant hand. That's nice. The 1st the 2nd one is easy, I think. The third one will be more challenging. I need to keep it in mind that I stay focused all day and I really pay attention to them so I am not forgetting about them. OK, pouring water with the non-dominant hand. Eating with the non-dominant hand. OK, I cannot click on the last one, is that normal?.

Researcher: That's OK for now we can see if you can do it once you're there after doing the tasks, but for now maybe you just imagine you want to have some more general information about what the app does and you want to look for it within the app.

P3: It's OK. So 1st of all it's really clear what I need to do. But the app also shows what the function of that is and maybe how my process is going on and maybe the homework that I need to do. And just one question: Is every step for one day or? So the 1st one for the first day? Or when I arrive at the third day I also still need to do the first and the second one?

Researcher: No it's always the task for the day.

P3: Ah, okay. So if I didn't finish the 1st or the 2nd, I don't need to do them any more but just always the new one.

Researcher: And if you want to you can open the menu for now. It should be like those 3 little... P3: Yes.

Researcher: So maybe you can figure out what this app does. Maybe in this menu you're seeing...

P3: Ah, OK that's explaining why... Sometimes I just need to translate a little bit. Okay, it read it.

Researcher: Do you have any thoughts about it so far?

P3: The thing is I'm excited to try that because I need more self control. Sometimes for learning especially with ADHD it's really sometimes challenging and hard to have self-control. The thing is sometimes I really want to do something for example in elementary school it was really hard for me always the teacher said that I really want to do it and I'm really trying hard but sometimes self controls is missing. I did train it already, in my ADHD therapies but sometimes I need more help and I think the daily exercise it's really a good thing for that because the ADHD therapy was maybe every 2 or 3 months and they don't have an access to exercises like this one. I think it's really a good thing to train it and it's really necessary to train it, especially for me with ADHD. I really need to train it and I think I should do that really.

Researcher: Nice to hear that you're motivated to use this app. OK and then we can just go to the last scenario. So just imagine you're done familiarizing yourself with this app. So you want to return to the home screen and afterwards close this App.

P3: So I should close the app? OK. So if I close the app I'm going back to the google store.

Researcher: That's fine. That's all right. And I just have a few follow up questions about the app and your 1st experience with this app. Just very basic... what's your 1st impression about it?

P3: Yeah, overall positive. The idea behind this is really good. The thing is the idea's really good, additionally the illustrations are also really good. Both was really successful. I think I have a really good impression. The illustrations are nice, especially for people with ADHD, sometimes things are getting boring very fast for us and this app looks interesting and funny with the dog. I would have the motivation to look at it daily and additional that's only just a few a details for example with the hills and of the moon that's really nice illustrations. An important thing other people would really notice as well. And I think that this is a really good idea, I think that it can help people challenge the day better. I think this can really help people. And I think this can help me. I'm really excited which results it will bring me in the next few days and I'm also excited to begin with the first day and try.

Researcher: Thank you for your answer. Also, can you just maybe Name just a few very specific aspects of the design that you liked but also disliked.

P3: Yeah, first of all a nice interesting thing with the dog. The dog is cute, I associate positive feelings with it it's ehm nice and most of all the nice thing is the road with the hills to the moon, it's really nice. And with the steps and the...I see a lot in this illustration, cause the hill, the long roads we are going through and steps and we get higher and higher at the hill and in the ends we are arriving at the moon. that's really nice. And I think it's really good aa I have nothing bad to say about it.

Researcher: Okay, so you can't think of anything you disliked?

P3: No.

Researcher: Thank you. And how was your experience registering for this app?

P3: It was easy, it was kind of easy. The introduction was so nice I did read it, sometimes it was necessary to translate but no problem and then I really did it fastly. That was really easy.

Researcher: Okay, thank you. Ehm, and do you think it'll be easy to learn how to navigate this app?

P3: Yeah, I think I've got it already.

Researcher: Do you think there's anything in specific that makes it easy to navigate it? Why do you think it's easy to navigate?

P3: There are because of the- also because of the illustrations. I just need to click on a day and there's written what I need to d. Also, another illustration with, for example the 1st day: opened the the door with the non-dominant hand and there's also a picture of a man who's opening the door and I think that it's really a nice.

Researcher: Okay, yeah, do you think there's anything that could be done to make the navigation of this app easier?

P3: Not so far, maybe I can say that in the next days. But so far it seems easy to me.

Researcher: Ok, great. Thank you. Also we already talked about this a bit, but maybe we can go into a bit more detail. Do you feel motivated to use this app for the next few days?

P3: Yes, yes for sure. I feel really motivated. The 1st reason for that for the motivation is the nice atmosphere that's created. It's really creative and structured. And there are the illustrations like I said before. And the second motivation is that I really hope this will have a

positive effect. I already read some scientific facts in the past that using your non-dominant hand is good for the brain but I never tried it and I'm really happy to try it now.

Researcher: Alright, so it's also about the theory behind it that makes you feel motivated?

P3: Yeah.

Researcher: And is there anything that could be changed to make you feel even more motivated?

P3: I cannot say it so far. So far it seems really perfect for me. It's like a utopian app for me and yeah. But maybe I can say it in the next days. I will make a note if something came up to my mind.

Researcher: Yeah, that would be great. And then if you just look back at all the apps you used in the past, do you feel like there's a pattern of like specific things that make you feel motivated to use apps in general?

P3: The thing is, in the past I only used games as apps. I did use a health app for eating and that was all. But I never tried an app before for ADHD.

Researcher: But if you think about those apps you used before, like the health apps or the game apps, what about them makes you want to use them again?

P3: Overall, it was just for fun. Ehm, especially the game app was just for fun and, yeah. Except the health app that was just to gain more weight. So it was more about the goal.

Session 2

Researcher: Alright, so the first szenario is: YYou have been using this app for quite a while now. You now want to reflect on the challenges you completed. Search within the app for the challenges you completed.

P3: Yeah, so should I just say something about my experience with it?

R: No, maybe just use the app and search within the app for your completed challenges.

P3: The thing is, I have now 8 starts. So I finished it on 8 days. Like, I day I forgot to click on the app. That was on the 7th day. But I did the task but sometimes it was not possible to open the app. But I wrote everything on a paper. So I never missed it. But I sometimes missed to click on the app. Because sometimes when I was using it my Macbook did completely go off. Sometimes it needs some time until the android system is opened.

R: Alright, so you kind of faced a barrier because of the systems.

P3: Yeah, but I wrote everything on the paper.

R: Are you having the app available at this moment?

P3: Yes, I have it opened.

R: Alright, then I just tell you about the second scenario. Imagine while setting this app up you accidentally indicated the wrong hand as your dominant hand. You now want to change this. So find a way to change the dominant hand setting within the app.

P3: Okay, so I need to set in right now the right hand as nondominant hand instead of the left hand.

R: You just change it from the way you had it before.

P3: I will look. Because in the past it was directly asked when I started the app. Maybe I need to look if I can change it in the settings. Okay, here not...I think it's not possible right?

R: Just keep on searching...

P3: Ah, I think there it was. No, I cannot find it. I am just finding the text I wrote at the beginning, about my goals. But I can not find a setting to switch the hands.

R: Just let me see the screen of your app...Just keep on searching. Maybe you can try to figure out where you would search for the function.

P3: I did search ere everywhere. And here also, that was the text. And here...Ah, it's. Ah, okay. Okay.

R: So what are your thoughts about this setting?

P3: It's nice that you can set this one. Because maybe someone sets it wrong at the beginning and then he or she can change it afterwards.

R: And you had some difficulties finding this function. Is there something that could be changed to make it easier?

P3: No, I think it's the..I don't know why I did not find it before. Normally, it's quite easy to find. That was my thought there. It's quite easy to find.

R: Then we can move on to the next scenario. So just imagine after using this app for some time, you want to look back at why you started using this app at all. So you want to find out what your initial motivation was to train your selfcontrol.

P3: Yeah, I did see it already before....one moment...yeah, that was the third setting.

R: And what are your thoughts?

P3: Yeah, it became a reality that the app. Day after day, I don't know if this is a placebo or not. But I did get the feeling like I'm organized more and I am doing my tasks. In the past I was thinking...I will do it later. But this gave me a feeling of organizing and that I'm doing my tasks carefully. Like, tasks from University but also my tasks at home. It gave me the feeling that I can organize myself better. And that's what I wanted before using the app. And that's crazy that I achieved it in such a short time.

R: Great, nice. And how was it for you to access this function. To look at your initial goal. What it easy to find this function?

P3: Yes, I did find it already before.

R: Great, then I just have some general questions for you. Some of them might be a bit repetitive so don't be irritated if some of them might sound a bit similar. So the first question is: What's your overall impression of this app?

P3: It's really nice. The thing is, I did some research in the internet. I did read that when you're using your nondominant hand that new braincells are creating. And the thing is I did recognize that also. Like, like I did say before. I don't know if it's a placebo or not. But it did have a good effect on me. I noticed that I did organize more easier and better than before and the thing was, like, I did had the whole day in my head, like, okay I need to do that with the left hand, like, it was like a brain exercise, like you know? Like keeping your brain fit and being aware and I did have several last days...I was more aware in my daily life. I was more awake then normally.

R: Nice that you liked it. And did you enjoy using this app?

P3: Yes, it was kind of funny. There was just one day that was really hard. The challenge. The day with the phone, like, smartphone with the left hand. But I did end it but that was the most challenging one. But the other ones were really easy for me. Yeah, it was kind of funny.

R: And do you feel like you learned something from using this app?

P3: Yes, yes. More discipline I think. It was like doing this the whole day was really, yeah. Discipline. Organizing more. And exactly that is necessary for someone with ADHD.

R: Okay, yeah that kind of ties into the next question I wanted to ask which is if you think this app is fitting for people with ADHD.

P3: Yes. Absolutely, absolutely. People with ADHD have less...are less organized. Normally, we want to do something...I want to do something, for example my experience in elementary school. I sometimes I really wanted to do but my brain was not able to do that. For example, I was only able to do something which was really interesting for me. For example, when I was reading something about acting or psychology I was really reading for several hours but if it was boring I did not even have the motivation. And it was similar with my daily tasks. I did not have the motivation to do this...do that. But with the app, it did create more discipline, it did create more motivation for daily life, for organization and because of that it was easier for me to organize my day and this had really a big impact on the life of someone with ADHD. And I think that's a really nice thing. It's better than things like taking medicine. Sometimes that's also necessary but it's really nice that there are things that we can treat ADHD without medication. That's really nice. I appreciate that, really.

R: So the next question is in of similar. Do you feel like the tasks in this app have relevance for people with ADHD?

P3: Absolutely. Especially because these are daily tasks and it's really necessary to do something daily.

R: And did you encounter any difficulties using this app during the last few days?

P3: No, the only difficulty was that sometimes the android system was not able to open but that has nothing to do with the app. But with the app, everything was okay. I never had a problem with that.

R: And did you ever have difficulties navigating the app?

P3: No, no. It was really kind of easy. It was, everything easy.

R: Can you maybe think of other people who might run into difficulties with the navigation of the app?

P3: If somebody else would use it, maybe they would have some difficulties? I think not, because the app is really easy to use.

R: Okay and what do you think about the design of the app?

P3: Yeah, I did also say that last time, it's really nice and it's still nice. It's not getting boring. Like I did state, it's a really cute idea and with the hills it's a nice illustration and yeah all in all it's really nice. I've enjoyed to use this app and it is additionally a motivation to see that you are getting higher and higher at the mountain and you want to get one star after the other star and that is a motivation additionally.

R: Okay, and do you still have any suggestions for improvement regarding the design?

P3: No, it's like perfect.

R: And how was your experience accessing the daily challenges?

P3: Like, that was also kind of easy. It was like at the beginning of the day I did see the task. At the end of the day there was like the question how difficult or easy was it for you? And it was very easy to click and write.

R: And how was your experience regarding the daily reminders?

P3: Yeah, that was nice that you see... everytime I opened the app I saw there at the first page: task for the day. And that's good because it helps you remember which is good for people with ADHD, because we sometimes forget things easily. It's really a perfect app. It's really perfect.

R: And what's your opinion of the mascot?

P3: It's really cute and nice and it's creative.

R: Do you think it's easy to relate to the dog?

P3: What do you mean?

R: That it helps you relate or feel attached to the app.

P3: Yes, because I associate positive feelings with dogs. It's like something cool, cute and nice and everybody loves dogs I think. And now I also associate with the app. And not also the dog but also the nature illustrations. They also create positive feelings that I also associate with the app.

R: Thank you. And did the app feel personalized to you?

P3: Ehm, I think it was not possible to change so much from the illustrations. But that was not a problem, because they already chose some nice colors. For example green and purple. That's nice and awaking interest, so I think it is not necessary to change something.

R: So if I understand you correctly you think that there are not many options to personalize the app but you also think that that more personalization is not necessary.

P3: Yeah, I think it's not necessary. I'm already satisfied with the illustration.

R: Do you have any suggestions on how the app can be better personalized?

P3: I need to think. Ehm, no. No. But maybe like asking for how it's going on but that's already in the app, like end of the day. But maybe like the app is asking for some kind of feedback like how it's going on but that's also in there. Maybe like at the end of the week a more general feedback but I think that's also not necessary. Nothing came to my mind. Oh, maybe personalizing things like data about the age or something like that which you can type in.

R: And do you think the app offered a good balance between giving you background knowledge but also requiring you to be active?

P3: Background knowledge a little bit like with giving the tasks and daily tasks that I have gained knowledge like which exercises I can do. And, yeah. Because the tasks which I did learn in the app I will also use in the future. Because it is a good way to train. And I did gain knowledge because of the tasks.

R: Alright, thank you. Then I will now read some statements to you and you are supposed to tell me how much you agree with those statements on a scale from 1-5 and then I might ask you some follow-up questions. Alright. The first statement is: It think that I would like to use this system more frequently.

P3: 5. I do agree absolutely but I need to. It would be really a blessing if the app were also available for apple products. That would be really good. Because sometimes I did have trouble on my computer but I would really like to use it.

R: Why would you like to use it frequently?

P3: Because it's effective.

R: And what does frequently mean to you?

P3: Maybe it's not possible to do this everyday. Now it was possible because it was an experiment and it only takes two weeks but I think in real life every day sometimes it will be not possible for example when I need to go to work or something like that but on the free days when it's possible I would use it.

R: Alright. And the next statement is: I found the system unnecessarily complex.

P3: No. Zero or one.

R: Alright. And in general if you look back at all the different apps you used throughout your life. Is there like a pattern of things that make apps more complex. Or too complex maybe.

P3: I did use a health app in the past. For eating. That was complex to write in the proteins and fats and everything like that in it but during using this app I didn't have any complications.

R: And then the next statement is: I thought the system was easy to use.

P3: Yes, absolutely. 5.

R: Why do you think it was easy to use?

P3: First of all, because of the nice illustrations. Like I said before. Because the settings are pretty easy. It's not too much, it's easy to find everything and the illustrations, it's really easy to understand what it is about. For example, you see the road until the top of the hills. It's really easy, I think a child can also use it.

R: So how much do you agree with the statement that the system is easy to use?

P3: Completely. 100%.

R: Alright, so 5?

P3: Yeah.

R: Okay, then the next statement is: I think that I would need the support of a technical person in order to use this system.

P3: No. Never ever. 0...or1.

R: Okay, alright. The next statement is: I found the various functions in this system were well integrated.

P3: Like, the settings or...

R: Just all of the different functions. All of the different pages you can access.

P3: Yeah, of course.

R: What makes you think so?

P3: It's easy to find everything. It's not too much. If you open the app there are two boxes and it's really easy to find everything and I think it's not possible to find something not and you have a nice look at it and everything is quite easy.

R: So how much would you agree with this statement on a scale from 1-5?

P3: I think 5. I think it was great.

R: Then the next statement is I thought there was too much inconsistency in this system.

P3: That's not the case.

R: Then the next statement is: I can imagine that most people would learn to use this system quickly.

P3: Yes, absolutely because the nice thing was when I installed the app and when I opened it it was very well explained and there was all the necessary information which I needed to know right at the beginning. And because of that I would also never need technical support. Because it was already very well explained at the beginning.

R: Alright so how would you rate your agreement?

P3: 5.

R: Okay, then the next statement is: I found the system very cumbersome to use.

P3: It was not cumbersome to me. It was definitely not cumbersome to me. It was also very well structured and you could find everything you need. There was all the information right at the beginning.

R: And if you look back at all the apps you used throughout your life. Can you think of different factors that make other apps cumbersome to use?

P3: Ehm, yes. For example, I did talk about the health app where I need to find out how much proteins are in that or this one. And sometimes when I wanted to write that I ate a banana for breakfast, there was not an option for wheather I ate a large or a small one. And then I did dealete the app in the past. But in this app it's not the case.

R: So how much do you agree with the statement: I found this system very cumbersome to use.

P3: 1.

R: Alright and the next statement is: I felt confident using this system.

P3: Yes, absolutely. 5.

R: What made you feel confident?

P3: Because I did understand it directly in the beginning and it gave me a good feeling. I understood everything and I looked at the illustrations and directly got what it's about. And the thing is, because the app illustrates so creatively and so easy and so good structured that gave me a confident feeling.

R: And now the last statement is: I need to learn a lot of things before I could get going with this system.

P3: No, I could continue directly. So it's easy.

R: So if I understand it correctly, you rated the last sentence a 1 right?

P3: Yeah.

Participant 4

Session 1

Researcher: Alright, the 1st scenario is: during the next few days you will complete certain challenges and now you're wondering how many challenges there will be. Try to find that out within the app and while you're searching, just let me know whatever you think, just so I can have feedback about the app. Positive or negative things - just any thoughts you have while looking through it will help.

P4: All right, so I went through today's challenges but it's stated that I have to wait until tomorrow until it will start.

Researcher: And maybe you can still find information somewhere else about how many challenges there will be.

P4: Wait, I do see a picture of a mountain with 14... all right I think those are the challenges.

Researcher: Yeah, perfect. Any thoughts so far?

P4: So I presume that every day has a challenge for 14 days and I would just do one challenge every day until you finish the whole mountain.

Researcher: Alright, so the next scenario is: just imagine you randomly found this app on the playstore without knowing what exactly it is about and now you've downloaded the app and now you want to find out what this app does using the app.

P4: So like how I'm going to navigate through the app?

Researcher: And try to find information within the app that tells you what this app is about. What it does.

P4: So yeah, I will go to the menu and then ... yeah...what it says here is that it will train your self control with daily challenges and will remind you to do those challenges every day. And then I'm going to "why train self control". So, yeah. What I get from the app is mostly that you will also want to train your self control because it can help you achieve a better lifestyle overall. Great, yeah, I mean you know that it is actually like the same mechanism as a muscle that you're training.

Researcher: So the last scenario is just that imagine you're done familiarizing yourself with the app and then you want to return to the home screen and afterwards just close the app. So you can do that.

P4: Yeah, I did that.

Researcher: Perfect, and now I just have some random follow up questions. So the 1st one is just what's your 1st impression of the app?

P4: It looks very clean. Yeah it's just ... it guides you pretty well. It says very big on the front: all right, tomorrow we start and if you want to know more information you can really easily just open the menu and there's all the information. But, yeah, not too much irrelevant information. It's straight to the point. Yeah, it just looks very clean overall.

Researcher: And what's your opinion of the design in general?

P4: Yeah, the design is a bit playful. I think it's pretty...pretty fitting for the app because it's just daily challenges which I think is quite playful so I think the style also reflects that a bit. Yeah, not too much irrelevant stuff going on. It's quite straightforward. So just helping you through those challenges and that's it.

Researcher: So are there also aspects of the design you disliked?

P4: Yeah it's...you really have to think about, like the mountain with all the numbers on it. You do have to think about those challenges being days, like if I went to this app without any prior knowledge I would think it would be something like candy crush that you could just do the levels all at once and then you would be done with the app.

Researcher: And in general how was your experience registering for the app?

P4: Yeah, well apart from the whole boundary thing it was pretty smooth. It just asked you a few questions and that's it. So it wasn't too hard.

Researcher: And do you think it will be easy to learn how to navigate this app?

P4: Yes, because I don't think there's a lot to navigate. If you want a bit of information you do need to find your way to the menu but I don't think that's hard to do. Yeah the home screen

has just 2 points and that's it. It's also really guiding you to the main points of the app that's why I don't think it's hard to get at all.

Researcher: And like just after your 1st impression, do you feel motivated to use this app during the next few days?

P4: Yeah, it looks quite simple, like you could finish it easily.

Researcher: So and in general, if you look back at your experience with different apps like all sorts of apps, can you maybe figure out a pattern of what aspects make you motivated use apps?

P4: Yeah, mostly the the apps that I use are really easy to use like I have another app, forest, that also helps you concentrate and it has quite similar aspects to this in that it's really playful, you get a tree and you plant a forest every time you concentrate, right and it is in a playful manner. You work with yourself and I think it's the same here and also because it's straightforward and because it's easy to use, you don't see it as a hefty task.

Session 2:

P4: Yeah, yeah. So, for starters my app continuously just shuts off. But I think that is because of my phone quality and that I need new codes now and then but those are the only two things that I had difficulties with.

R: And did you have difficulties navigating the app?

P4: No, not at all.

R: And do you think that other people might run into difficulties with this app?

P4: No, I don't think so either. Because it like guides you through the beginning. It is like a really easy setup and you just have two simple options and then if you want to know more you just go through the menu and choose the other things but for other people too I don't think the main points of the app are too difficult to access. I think it's pretty easy to access.

R: And what's your opinion regarding the design of the app?

P4: Yes, I...cartooney, fun design and I think it's appropriate for what the app wants to do. It just wants to do the small fun tasks of the day so...

R: Do you maybe have any suggestions on how the app can be improved?

P4: Yeah, the slide bar. That's the only thing.

R: And how was your experience accessing the daily challenges?

P4: Well, accessing it wasn't really that hard because you also get push notifications that the challenge is ready so that wasn't so hard.

R: And how was your experience with the notifications? How did you like them?

P4: EHm, they're a bit much because you get a notification when the challenge is ready and you get another notification that you need to do a challenge. Then you get another notification

that in a few hours the challenges end and then you get another notification about something else and then I have a lot of notifications in the day. I think two would be sufficient just to start your challenge for the day and end your challenge for the day.

R: And what's your opinion of the mascot?

P4: Yeah, it was just a silly cartoon. I don't think too much of him. I think it's fun to have.

R: And do you think it's possible to kind of relate to the mascot?

P4: Ehm, I don't know in what specific way but...yeah well it's a dog, maybe but, like. I don't relate to it in any way.

R: Maybe, I don't know. Maybe some people might feel like it makes it easier to connect to the app or something.

P4: No, I don't know. To me it's more like decoration of the app than an integral part of it.

R: And did the app feel personalized to you?

P4: No, it just felt general.

R: And do you feel like the level of personalization is good or would you change it?

P4: NO, I think the level of personalization is good. It doesn't really need to be personalized because it's just small challenges that you need to do. I don't think anything has to happen there about personalization because the tasks themselves aren't personalized it's just small things you can do.

R: And do you feel like the app offers a good balance between giving you theoretical background knowledge but also requiring you to be active?

P4: Yeah, I do. The focus was mostly around the challenges because I didn't want there to be more background knowledge because for me it was mostly about focusing on the tasks, so I didn't want to be flooded with information. Because it doesn't really fit the style of the app because the app is really playful and simple and I think a lot of information wouldn't really fit that.

R: Alright. Then now I have some statements and I would like to know how much you agree or disagree with them on a scale from 1 to 10. Like 1 is I don't agree at all and 5 is I completely agree. And I might ask some follow up questions. And the first statement is: I think that I would like to use this system frequently.

P4: No, because I did it for 14 days and I think...I don't think it really adds something to my normal life. It was a one time thing that you become aware of doing some things differently and that it trains your selfcontrol but I would not like it to do it like over a time span over months or a year or something because it would get quite annoying. Because I don't always want to feel like: Oh, I need to do a challenge today. It would just be too much.

R: Is there anything that could be changed in order for you to want to use this system frequently?

P4: Ehm, maybe make it competitive or something? Or maybe insert your own challenges. Because then you could maybe share challenges with your friends or something. I have a

challenge for you, try this one! Then it gets more interactive, because now it's like you're doing these challenges on your own.

R: So if you would rate your agreement with this statement on a scale from 1-5. How much do you agree?

P4: I think 2.

R: Alright. And then the next statement is: I found this system unnecessarily complex.

P4: One.

R: In general, like, what do you think, which factors determine whether an app is too complex or not?

P4: Ehm, yeah the amount of headers you have and the amount of menu options makes it really complex. The amount of text you have to read. The lack of visual cues makes it quite complex. But this app had all of that right. Like, it had a lot of visual cues. I had a mountain so you're getting somewhere. That makes it pretty easy to use.

R: And then the next statement is: I thought the system was easy to use.

P4: Ehm, yeah, I would give it a 3. Because a lot of times the app would stop. But if it wasn't I would give it a 5.

R: So if I understand it correctly the issues you had were mainly with you getting logged out again and..

P4: Yeah, the rest was fine.

R: And then the next statement is: I think that I would need the support of a technical person to be able to use this system.

P4: No, if the app would have worked on my phone then I wouldn't need any support.

R: So what would you rate this statement from 1-5?

P4: Ehm, that you would need someone with technical experience?

R: Yes.

P4: 2

R: Alright. The next statement is: I found the various functions in this system were well integrated.

P4: 5.

R: And what does it mean to you that functions are well integrated? How can you tell?

P4: Ehm, well, it's mainly that all of the things you need to do are present and they are...the main focus of the app also has a central stage in the app itself. Like if you want to do the challenges it's big on the homescreen and the side information is tucked away in the menu so...ehm...yeah, I think that it also shows the importance of something. That's really well integrated in the app.

R: The next statement is: I thought there was too much inconsistency in this system.

P4: 1

R: Okay, Again, in general, which factors do you think determine whether or not an app is consistent or not?

P4: Again, mostly the design. Yeah, what the app asks of you, it needs to be consistent in terms of difficulty and amount of time spent on it. And, yeah, the amount of information it gives you. That also needs to be consistent. I don't want there to be somewhere on the app where you just get two lines of information and somewhere else there are two pages of information. It needs to be consistent.

R: And if you apply that to this app you think that it is pretty consistent?

P4: Yeah, I think it is.

R: And then the next statement is: I would imagine that most people would learn to use this system very quickly.

P4: Yeah, I would give it a 4.

R: Why do you think so?

P4: Like I said, it guides you through the app visually mostly. And there isn't much to learn from it. It's just what it wants you to do is easily to recognize and access so..

R: Okay, great. And could anything be done to make it a 5?

P4: Yeah, maybe to. On, when you finished a challenge. Maybe it could say something like: Today you learned to do this because it had impact on your brain. Or something like this. Then you're really aware of what you're training and I think you really learn the app better that way.

R: And can you maybe think of a specific group of people that would struggle to learn how to use it?

P4: Yeah, well, mostly the elderly. Because they, they lack the base knowledge of technology so maybe that's quite hard but I don't think the problem would be that severe because of the visual cues. But, yeah, no. I think it's mostly the elderly because it's quite similar to other apps young people use. So it will not be difficult for them to navigate it.

R: Then the next statement is: I found the system very cumbersome to use.

P4: No, not at all.

R: So how would you rate it on a scale from 1-5?

P4: A two.

R: And in general, what do you think determines whether an app is cumbersome to use or not?

P4: Well it doesn't need to ask a lot of you. It needs to feel, ehm, it needs to feel like something you can easily do because you don't download the app because you need a fulltime job. You just want it to be a light exercise you do for self improvement and so I think the, ehm, what mostly determines if something is cumbersome or not is just the difficulty and

amount of energy a task asks of you. And I don't think the tasks asked of me were too cumbersome because they were mostly small tasks.

R: Okay, thank you. And the next statement is: I felt confident while using this system.

P4: Oh, yes, 5.

R: What made you feel that way?

P4: I just felt like I was making progress and there weren't many, many problems and I had a feeling that I understood the app and that I could easily navigate it.

R: And then the last statement is: I needed to learn a lot of things before I could get going with this system.

P4: 1

R: Okay, thank you.

Participant 5

Session 1

Researcher: So the 1st scenario is during the next few days you are going to use the App a lot and you're going to have to complete different challenges and now imagine you don't know how many challenges there will be and now you're looking for that in the app. For information about the amount of challenges there will be.

P5: Okay, that is something that I want to look for now. OK, so I have a thing called overview here which is to me... overview yeah. There's 14 days. It goes off a mountain to a moon.

Researcher: Any thoughts so far?

P5: Why is the moon so illustrated when the rest is not? That's it. Oh, it says info. Can I click on that? I want to click on it. I'll read...that's nice. There's more info...yeah you have 14 days of challenges. I really like the dog. I like dogs, this is nice. You walk up a mountain and it feels like I'm accomplishing something. I like that.

Researcher: Alright, thank you. Then we can start with the 2nd scenario. So now just imagine you randomly found this app on the play store, you don't even know what it's about and now you want to look for information within the app that tells you what this app does.

P5: So I remember that I started to click through the menu with all the info and it said that I could look at it again, sometime so it should be possible. I'm gonna click on the left top... um ... oh, there's multiple questions, so *why would you do this?* oh, *what a what does this app do?*. What does this app do, there we go, and then we have the info screen again. There are the illustrations with the dogs and the thumbs up and the thumbs down so that is what this is app does and then why would you do this is also there.

Researcher: OK, perfect.

P5: Why are they in different menus though? Like, yeah, one menu that's like what does this app do and in the other 1 like why would you want to train self-control. Oh, wait, there's a question...why would you want to train self-control and ...oh ... and then there's another one. Oh, wait, that's my goal, right?

Researcher: So would you prefer it to be like 1 option instead of 2?

P5: Yeah, you have an option why would you want to train self-control is like the info thingy and then there's a question that's very similar but it's your personal goal which makes sense but it wasn't the 1st thing that I thought of when I saw it.

Researcher: Yeah, so maybe do you think it would be easier if you would not phrase it as a question but more like the menu point...call it your personal goal or...

P5: Yeah like your goal, yeah. I think that's better, yeah.

Researcher: Perfect, thank you. And the very last and very quick scenario is imagine you're done familiarizing yourself with the app and then you want to return to the home screen and afterwards close the app.

P5: So I want to go back to the home screen. Well there's an arrow in the left top and then I'm back on the home screen, right.

Researcher: Alright then I still have some very quick follow up questions for you. Just about your very 1st impression. Obviously you're going to use the App for the next few days so the 2nd session is going to go a bit more in depth because by then you've known the app longer but for now it's just about your very 1st impression. Okay, so maybe you can just tell me what your 1st impression is.

P5: Yeah, yeah well I've already said I really liked the illustration of the dog and it's nice, he's cute he looks happy that makes me happy. Yeah, I know I like the color scheme of the homescreen. But, yeah, like I said, if you click on like the pull out menu I think some things are very similar that might be a little bit confusing but yeah, it's fine, it's a pretty nice app I guess. It seems clear to me like it's not very complicated. There aren't 6000 menus to confuse you, there's just one which is good 'cause sometimes you have apps where you clicked on 6 different menus before you get to what you want, that's not the case so I really like that.

Researcher: OK and what's your 1st impression specifically about the design?

P5: Yeah, I'm, I like it actually. It's not too cluttered, but the colors are nice. I mean the dog color doesn't really match with the background color you know what I mean like they're like greenish vibes and I got a lot of red vibes and then the dog is very purple. He doesn't match so much. I don't know if that's intentional.

Researcher: All right, good. Thank you for your feedback. Um, how was your experience registering?

P5: Oh, it was very easy. Yeah, it's very easy. It's just filling the code and then you're in there.

Researcher: All right, and then just considering the next few days. Do you think it'll be easy to learn how to navigate this app?

P5: Yeah, I think so yeah the only problem is that I might forget to do it but yeah that's because I'm not very good at this kind of thing like doing something every day um.

Researcher: Why do you think it'll be easy to navigate it? Like, what about the app makes you think so?

P5: I mean I don't...As long as I don't really want to know anything else than my challenges I only have to be on the home screen and it's just set like my goal on this for the day like right there so I don't have to really do anything. If I open the app I already know what I have to do.

Researcher: So if I'm understanding correctly, it doesn't have too many functions so it's easy to have an overview?

P5: Yeah, it's, it's hard to get lost in this app.

Researcher: And do you think there would be something that could be done to make it even easier to navigate it?

P5: Not right now. I don't know right now. Maybe later.

Researcher: And just based on your 1st experience now with this app do you feel motivated to use it during the next couple of days?

P5: Yeah, I'm curious. I'm very curious, it says I'm going to start tomorrow so I'm looking forward to that. I think it's funny. I like these kinds of challenges, I think they're fun, so yeah I'm excited.

Researcher: What about the app makes you excited?

P5: Yeah, the challenges. And I don't know I'm gonna say it again, I like the dog. Dude, he's cool! And I need to see if I'm able to do it well because usually I'm like very useless with my left hand. It's just kind of there, just vibing, not really doing anything. So I'm curious to see how I'll be able to do it and I think it's hard to think about it to do things with my left hand because it's not my 1st instinct.

Researcher: Yeah, alright. I just have to see what questions we have left. Yeah, is there anything that could be changed to make you feel even more motivated to use the app?

P5: I don't know. I mean, we have the calendar, that's nice. You are already 0 days, yeah. Maybe if it said how many days you have left, that's always motivating to me, to know like how far along I am. Not just how far I have come but also how far is still have to go, because if you're going for a year and you've done 3 days like...all right, I've done 3 days but I still have 349 left go. That would be nice I think. I don't know does it say the challenge, like, on the home screen as well? Like, for me doesn't do that right now because I haven't started yet but if it, like, shows the challenge of the day on the home screen so every time you open the app you would be reminded of that, I think that would also help me.

Researcher: Yeah, I think about those things we can also talk in the 2nd session then because by then you will have experienced it. So yeah and then the last question is: just in general about the app. If you look back on the apps you ever used, can you see like a certain pattern of things that motivate you to use apps.

P5: I don't know... I always like to know where I'm going, that is also what I like in apps. Yeah that always does...that is something I like personally. I know some people don't but I really like that. It's the only thing I can think of right now, yeah.

Session 2

R: The first scenario is: You have been using this app for quite a while now. You now want to reflect on all the challenges you completed. Search within the app for your completed challenges.

P5: My completed challenges...so I go to overview, then you have like the mountain thingy and then you have all the challenges you completed. Then you click on them and then you can see what you did and what you didn't do and if you click on like the stars you get info what the challenge was.

R: Any thoughts about this or about searching it?

P5: No, not about searching it but I did write something down. Ah, right. When you click on the challenges you can only see, like what the challenge was but if you completed the challenge and you say how you think you did, then you're not able to see that anymore. And I was not expecting that. I was expecting to be able to see how I did the different days. Ehm, cause, I don't know. I like reflecting of myself. So it would have been nice to see how you did on different days.

R: Thank you for your feedback. SO the second scenario is: Imagine while setting up the app you accidentally indicated the wrong hand as your dominant hand. You now want to change this. Find a way to change the dominant hand within the app.

P5: I accidentally almost did that the other day, so haha. Ehm, I'm going back to like the start thingy and then you click on the menu on the left and then you click on settings. And then it says: You said that you are right handed, do you want to change this? And then I say yes. And then you can change this.

R: Any thoughts about this?

P5: Ehm, I thought that in the settings you can change the language of the app or something but that's not possible. Can you change anything else? No. It's only possible to change your right or left hand. I don't know if I would look for that...yeah I guess I would look for that on the settings but it's not the first thing that I thought of when I saw the settings. I thought it would be like: In what language do you want it? Or do you want to have a dark mode if that's an option but it's not. Well, I thought I could change if I get push notifications and stuff like that. I guess it makes sense to put it on the settings but when I saw the settings menu it was not the first thing that I thought would be under it.

R: And do you think there should be more settings then?

P5: Yeah, I don't know. I don't know if it's necessary to have more settings cause I don't know what kind of settings you would have. But I don't know where else you would put it because it makes sense to put it under the settings. Cause if I wouldn't have done this accidentally I wouldn't have known exactly where it would be.

R: Then we can move on to the last scenario. Which is: After using this app for quite some time you now want to know why you started using it in the first place. Try to use this app to find out what your initial motivation for training selfcontrol was.

P5: Alright, I'm back at the start menu and then I click on menu on the left and eh, there's a button like why do you want to train selfcontrol.

R: Any thoughts about it?

P5: As it's like your personal goal, I would make it more clear that it's something that you wrote. So I would maybe call it a personal goal. Like, something like that. Because now there's three things of information. It's like why do you want to train selfcontrol?, what does this app do? And underneath that it's like why do you want to train selfcontrol. And they're very similar menus in my opinion. They all give info and only...two of them give info and one of them you wrote yourself. So I would either make the two information menus one menu. One Button. So if you click on one of the buttons you get all of the info. Or I would make it more clear that the third one, like the personal goal that you wrote, is something that you wrote. That it's your own. Cause that's not really clear to me now.

R: Then we can move on. I have some questions for you. Some more general questions. Some of them might sound repetitive, so don't be confused by that. We just want to get as much information as possible. So the first one is what's your impression of the app now that you used it for 14 days?

P5 I think it's good. I like it. Like, the overall usage of the app is easy. It's very clear. I like the colors and all of that. It's easy to use. It's not that hard. So, like, overall, I like...it's nice. I would use this. I really hate push notifications. That's a me thing. I just really hate them. You always get so many of them and then from this one you get two or three a day, so yeah. I don't like push notifications.

R: Do you think there could be a change done to make this better?

P5: I don't know. So now I have the push notification that was like 7am. It says there is a new challenge for you. If I click on that I'm brought to the challenge and like the overview thingy. I could just click on that. And then I would immediately see, like, today your challenge is to, whatever. But if I click on the push notification, which I'm not very likely to do but if I do I'm not even automatically brought to the thing I want to see.

R: Then the next question would be: Did you enjoy using this app?

P5: I did, actually. I find these kind of challenges very fun. It was harder than I expected, I don't know why. I can't open doors with my left hand for a day.

R: In what way was it hard?

P5: Ehm, I forgot about it a lot of the times. So I would see the challenge in the morning and then I didn't always think of it. I kind of forgot like, maybe like after breakfast already. And then you get a push notification and then you're like: Oh, no! I didn't do that! So I don't know. I would change the app to encourage me to keep doing that but it is something that I ran into. I'm not very good at doing things for a long amount of time because I forget it.

R: Ehm, so the next question is: Do you feel like you learned something from using this app?

P5: Yeah, that I'm not good at doing things with my left hand. Ehm, what did I learn from this app? I don't know. I'm not sure if my selfcontrol is better now. But I did enjoy using it, as I said, before I thought I would be really good at this. I don't know why. I was very confident at the start but now I'm not so confident anymore. So that's something that I learned, maybe.

R: And do you think this app is appropriate and fitting for people with ADHD?

P5: I'm not sure how really different it is from other apps that I would use. I don't really see the thing that is like ADHD specific other than that it's very simple. It doesn't make noises which is great. It would be very distracting. Like when I'm trying to read and there are like things flashing and noises. That would be very distracting but that doesn't happen so that is something that I really appreciate. So yeah, I think it would be appropriate, yeah.

R: And do you think the tasks are relevant for people with ADHD?

P5: Ehm, I don't really know. Because I don't really know the background theory enough. But the tasks are simple enough, I think anyone can do it. So in that case, yes, I would say they are appropriate. I am not really sure what else to say about that.

R: So maybe if there was more information about it do you think it would be easier to see how it is appropriate for people with ADHD?

P5: Yeah I would love to know why it works. I would love to know the theory behind it. Maybe it's also because I'm a psychology student so maybe I'm also biased in that but I find it really interesting I'm really interested. No, I think anyone would like to know why.

R: Then the next question is just did you encounter any difficulties while using this app?

P5: Ehm, I mean, I did forget it a couple of times which is not the best, I guess. Oh, also, when you, okay, say it is now Thursday and I am now thinking: Oh no, I forgot about the app but I did do my challenge on Tuesday but it is now Thursday. On Thursday you can still fill it in for Wednesday but you're not able to do it for Tuesday anymore because that's locked. And I understand why you would lock it. So people don't go back and change all of their things. But as someone who tends to forget to do their things, it can be very disappointing. Alright, also if you are on this menu, you have like the task of the day and the overview it says that you already completed a certain amount of days and that you're doing good but it doesn't say how many more you still have to go. I mean, I don't know how it's going to be used. If it's going to be used for short or for long term projects but if it's going to be used for short term projects like this 14 days it would be nice if it would say things like only four to go. I mean if this is like for long term things where it's like you've worked on this for two days only 363 to go down might not be so great but for short term projects I would like that at least. Because if you don't know how much time is still left the info of saying you're already doing well for 10 days, it doesn't have that much meaning.

R: Yeah, that makes sense. Did you come across any problems while navigating the app?

P5: Ehm, if you click on your challenge of the day and you click on viewing...nevermind it's not that interesting. I don't know. Not really actually. No, it's very clear. You know where to go. Like if you don't want to change anything in the settings or you don't need any info it's especially easy because you don't even have to click on the drop out menu on the left. Which is really, you don't really need that to use the app from day to day. It might be nice to have like an option on the whole screen to be able to review your challenge from the previous day or make it the first thing you see when you open your app the next morning. Just so you don't forget to rate your previous day.

R: And do you feel like some people might run into barriers while setting up the app?

P5: I don't...I mean if I look at my mom who is really bad at these kind of things I would say yes, there is always an option that someone runs into problems but that's not really. That's not always the fault of the app. No, I wouldn't see how there would be problems. There is not a lot of room for errors because you don't have a lot of options.

R: And what's your opinion regarding the design of the app?

P5: I'm still happy. I like the animations on the front page of like the challenge of the day I think are really good. Because once you know what the challenge is then you see the picture of the person. I like those things because you're very quickly reminded of what the challenge was. If you've seen it once, the picture of it will make it clearer. And I still like the dog dude, he's cute. He's nice. I like him. I think the design is good.

R: And do you have any suggestions on how to improve the design?

P5: I don't know. If you click on the overview you have the picture of the mountain going up to the moon and everything is in this undetailed drawing style and then you have the moon which almost looks like a picture, so it really sticks out and it is almost annoying.

R: Alright, how was your experience accessing the daily challenges?

P5: If I remembered I usually did it by opening the app. I didn't use the notifications that much because I don't like notifications. So then you would open the app and see the challenge. I don't know, I had a positive experience. I don't know what else to change about that.

R: And how was your experience receiving the daily reminders?

P5: I don't like notifications so they weren't that great. Especially the ones in the morning because in the mornings you get so many of them. The ones in the afternoon were cool because they were like, okay I need to be doing something so I thought they were good because they reminded me of what I was doing. But I didn't like the ones in the morning.

R: What's your opinion regarding the mascot?

P5: I like him. He's nice. Does he have a name? He should have a name. I would love if he, like, gave encouraging quotes, that would be cool.

R: And do you think it's possible to relate to him?

P5: He doesn't really have that much of a personality now so not so much. I mean other than he looks cute there is not much to know about him. Maybe if he said something like: Hey, I'm Max and I also struggle with ADHD and I tried this and this! Maybe it would be easier to relate to him then because right now he doesn't really have a personality or a story to him and I don't really relate to a picture of a purple dog.

R: And did the app feel personalized to you?

P5: Not really because there is not a lot to change other than whether you're left or right handed and your personal goal. It's very generic. It doesn't feel very personalized. No.

R: And are you still satisfied with the level of personalization?

P5: Yeah, I'm fine with it. I don't really need apps to constantly say my name. I find that quite annoying, actually. No, if you have like a two week thing it would be nice to be

reminded of your goal halfway through. Because now I don't even remember what I wrote down. So you write it down once in the beginning but there is no reminder or feedback on that. I would make the goal a more central part of it.

R: And overall, do you feel like the app offered you a good balance between offering you theoretical background knowledge but also requiring you to be active?

P5: The theoretical background knowledge is only at the start but later it's not a big part of it anymore. Like you're able to look at it again but it's not a big part. I would love to have more background knowledge but I don't know how other people feel about that. But as it is right now, it's fine I guess because there is some background knowledge and some people might get annoyed if it's too much. But I would enjoy a tad more background info.

R: I will now read out some statements to you. And then you can tell me on a scale from 1-5 how much you agree with them. The first one is: I think that I would like to use this system frequently.

P5: 4. I really enjoyed using it. It was like a fun little thing. Also because it's very personal so you're like alright, today I'm gonna open doors with my left hand and then everytime you open a door with like my left hand I thought of it and it felt very good it was like a boost in confidence. Which is really nice, I really enjoyed that.

R: And what would have to happen to make it a 5?

P5: I don't know. I'm just not very good at giving high scores.

R: So the next one is: I found the system unnecessarily complex.

P5: No, not at all.

R: And in general, which factors make apps too complex?

P5: Like lots of different menus and setting options and when it's very confusing and you have a menu on the left and one on the right. And you have to klick through 100 steps to get somewhere. Like Canvas. Canvas is very confusing. But this is very easy to use.

R: How much do you agree with the statement the system was easy to use?

P5: A 5 actually, I thought the system was very easy to use.

R: Alright, and then the next statement is I think that I would need the support of a technical person in order to use this system.

P5: No, I'm not a very technical person and this was fine for me. So 1 or 2. Like 1.5 if that's an option.

R: Next one: I found the various functions in this system were well integrated.

P5: Yeah, I would say a 4.

R: And what exactly does it mean to you that functions are well integrated?

P5: Mostly when it makes sense I suppose. Like when it makes sense that you have different menus for the challenge and then the overview. Yeah.

R: And you feel like that was the case with this app?

P5: Yes.

R: And then the next statement is: I thought there was too much inconsistency in this system.

P5: Was there inconsistency? No. 1.

R: Okay and usually if you think of apps in general. How can you tell there is inconsistency?

P5: It would be weird if you needed to click somewhere else every day to get to the same menu. Like Canvas, again.

R: The next statement is: I would imagine that most people would learn to use this system very quickly.

P5: I would imagine that so yeah 5. Because it's so little options with little room for error.

R: And can you think of a group of people that would struggle to learn how to use it?

P5: The only thing I can imagine is that you would struggle to rate your day. Because even now I can't really remember how I did it again. SO I think that might be a confusing thing for people. And maybe if you click on the start menu on the left, the first 3 questions are all very similar so that might be confusing to people.

R: Then the next statement is: I found the system very cumbersome to use.

P5: No, not really. 2 I would say.

R: And then the next statement is: I felt very confident using this system.

P5: Yeah, I do actually. I think I know how to work it now so a 4.5

R: And then the last one is: I needed to learn a lot of things before I could get going with this system.

P5: No. Like a 1. The challenges are very easy. It's very straightforward. It's just like: Open the door or stuff like that. So it's not necessary to have a lot of knowledge to do the exercises. Setting up the app was really easy as well.