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ABSTRACT BOOK

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EHealth Intervention for Social Skills: Psychiatric Live Animation Intervention (PLAI)

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Introduction

Children with Autism Spectrum Disorder (ASD) show atypical patterns of social development, which causes difficulties with social interactions. Findings show that children with ASD are more interested in watching animated characters compared to humans. The eHealth intervention PLAI uses motion capture-technology, which makes it possible to convert human interaction into an animated character. The animated character is then streamed live to the child and a live recording of the child makes it possible to interact in real time. An intervention as PLAI will therefore potentially encourage the children to interact more and learn more social skills. The objective of the study is to create an intervention, that will make it possible for children with ASD to increase their social skills by encouraging them to interact more.

Methods

Approximately 20 children between the ages of 3-6 years with ASD according to the DSM-5 criteria will randomly be assigned to the intervention (PLAI) or Treatment as Usual (TAU). The children will be tested by Vineland Adaptive Behavior Scales (VAPS). All sessions will be coded using the Test Observation Form (TOF) and the Social Responsiveness Scale (SRS) will be filled out by parents. For qualitative data on the children's development in social skills, there will also be conducted interviews with parents and secondary

caretakers. The design of the intervention is based on the child's initiatives, interests, and ideas. The therapist wears an Animation suit, which conforms the therapist's movements into an animated character on the child's screen. The therapist uses a semi-structured system of different play routines to interact with the child as an animated character, inspired by Early Start Denver Model (ESDM).

Results

The PLAI intervention only has preliminary results available. There has not been found a significant effect on ASD symptomatology (SRS). However, the qualitative interviews describe a positive impact on the children and their ability to engage in social interaction, because the parents report improvement in social skills as social greetings gestures.

Discussion

The PLAI intervention have theoretical potential to encourage and support the development of social skills in children with ASD. Some qualitative results from the study already points in the direction of a significant positive development of social skills for children with ASD, but more data is necessary.

Keywords: New Technologies, Preschool, Social

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Design Your Life

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Introduction

Participatory design (PD) methods have been used to facilitate individuals with autism contributing to the design of assistive technologies. PD methods are traditionally applied within the context

of a particular technology development project, and the process is typically driven by designers or technology consultants. Through appropriate structuring of the PD sessions, the likelihood of developing feasible and accessible technologies that are relevant

to users' life worlds is increased. However, several challenges remain. Our previous studies showed, amongst other things, that there is still a gap between the 'participatory design' results in a design project and the (lack of) actual implementation of those results in regular health care practice.

Methods

We see a need for a practice of 'creative participatory innovation', in which the co-design process is not separate from (not preceding) the practice of daily care and support but forms an integral part of it. Our line of thought fits in a recent trend in which the design of a supporting product and its use by the person with a cognitive disability overlap (Brereton et al., 2015). This method is known as 'design in use' or 'design as infrastructure' (Bjogvinsson, Ehn & Hillgren, 2012). It is also in line with trends in the so-called 'maker culture' and the many 'fablabs', which enable creative citizens to conceive, make, use and adjust products themselves, without interference of commercial parties (Nascimento, & Pólvara, 2018). This does mean, however, that participatory design is no longer a process led by professional designers, but instead by healthcare professionals themselves, who in addition to their social compe-

tences must develop creative competences to explore technological possibilities with the client and implement innovations together (Francis et al, 2009).

Results

Based on our explorative studies we envision a new healthcare practice in which persons on the spectrum are supported by professionals using participatory methods to shape their own (technological) supportive environment. The process involves guidance in creating personal content and combining technological elements into a supportive structure that over time develops into an integrated part of the supportive environment in the broader sense. At the same time it reinforces the person-driven development process of the client.

Discussion

In our presentation, we will elaborate this vision into a practical methodology and evaluation approach.

Keywords: Empowerment, New Technologies, Personalised Support

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Enable- ASC: Enabling Collaboration in the Classroom with the Use of Touchscreen Devices with Young Children with Autism

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Introduction

Young children with autism have many talents and special interests among which can be their affinity with digital technologies (Porayska-Pomsta et al. 2012). Despite the increasing use of mobile tablets in schools, and the motivation of the children to use them, there is limited guidance and research on how teachers use touchscreen technologies in the classroom to support children with autism develop specific skills, such as social communication (Kagohara et al. 2013). Specifically, the literature about the impact of teacher training on developing social communication skills in class is scarce (Mangafa et al. 2016). This study explored the effectiveness of iPad teacher training on improving teachers' practice and interactive style and the child's behaviour and engagement in joint interactions.

Methods

An action research methodology was followed at a primary special school in England, UK. Video recordings and semi structured interviews were used to collect data. Video recordings of four children with autism aged 10-11 were conducted as they interacted with

iPads over a period of five weeks. Interviews with teachers were carried out to explore their experiences of teaching autistic children and using new technologies in their teaching. Teachers also participated in a training workshop to share experiences and learn about new ways of using touchscreen technologies in class.

Results

Children were more actively engaged in joint interactions when using iPads with their teachers than without the use of technology. During the training workshop, teachers mentioned that discussions about iPad use and autism strategies grew their confidence and helped them reflect on their practice. Following the workshop, teachers were found to adjust their communicative style (e.g. by allowing time for the child to respond), make changes to the environment (e.g. by minimising distractions) and use resources (e.g. by using symbols/pictures) to engage with young children while using the iPad.

Discussion

Teacher training on iPad use and autism specific teaching strate-