Magic Land: Overcoming Design Challenges in Non-Directive Play Therapy

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\section*{ABSTRACT}
In this paper we describe non-directive play therapy, a psychological intervention to support children’s well-being. The overview of therapeutic process requirements is followed by the discussion of the challenges that designers are faced with when developing systems for non-directive therapies. We present Magic Land, a package of play activities on interactive tabletop interfaces, designed to support non-directive play therapy with children.

\section*{Author Keywords}
Play therapy; interactive tabletops; design; children.

\section*{ACM Classification Keywords}
H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

\section*{INTRODUCTION}
Well-being is often referred to as a state of being ‘in which individual is reasonably satisfying to self...’ [1], ‘a state of emotional or social well-being in which individual can cope with normal stresses of life...’ [8], and ‘the balance between social, physical, spiritual and emotional aspects of life’ [6].

Up to date statistics of the children’s well-being show that one in ten children has clinically significant mental health difficulties (anxiety, depression etc.) and conduct disorders (uncontrollable or destructive behaviour) [10]. Given the importance to the fact that anxiety and depression, if not treated in childhood, result into depression and other emotional disorders in adulthood [4], there is a need for introducing therapeutic interventions that support children’s well-being as early as possible.

While there are counseling services created for adult population, play therapy is a form of psychological intervention used specifically with children.

Digital technology is a familiar media in children’s lives. Video games and virtual reality applications in particular have already been successfully deployed in psychotherapy to treat a range of anxiety and panic disorders and phobias [3]. Yet, digital technologies are largely absent in non-directive therapies with young children.

Interactive tabletops constitute a new generation of digital technology that allows for direct interaction through a horizontal multi-touch surface. They have been used to promote children's fantasy play, storytelling, creativity, and collaborative interaction [7,9]. Although play therapy is based upon these elements, there is little research on the use of interactive tabletops in play therapy.

In this paper we discuss non-directive play therapy theory and challenges when designing systems within this approach. We present Magic Land, a package of play activities, as a way to approach and overcome these design challenges.

\section*{PLAY THERAPY}
Play therapy is defined from an interpersonal process where a child is being helped by a therapist with their emotional and traumatic problems to a form of self-therapy for children through which confusion, anxieties and conflicts are worked through [5]. Since children’s language development lags behind their emotional and abstract abilities to conceptualize the world in which they live [2], toys and other manipulative tangibles are used in play therapy as a way of helping children communicate their ideas and feelings.

\section*{Non-directive Approach to Play Therapy}
A non-directive approach stresses the inner wisdom of the child to heal from within. The focus is on accepting the child as they are and building empowering relationship that enables the child to find their own solution to their problem. Thus, the child is given full freedom to lead and control the therapeutic process.

The essential conditions that have to be followed to facilitate the therapeutic process are: warm and friendly relationship; unconditional acceptance of the child; opportunity for the child to express feelings without fear; reflection of feelings back to the child; returning responsibility to the child; letting the child lead; recognition of the gradual nature of therapeutic process; setting of only necessary limits [2].

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DESIGN CHALLENGES
Non-directive play therapy remains largely embedded in traditional toys and materials. Computers are considered to prevent the child to connect with the therapist or their own self; mechanical toys may lead to frustration if not working properly; any kind of game consoles stop the child leading their own play and exclude the therapist from the relationship [2]. Non-directive play therapy theory, therefore, imposes a number of challenges on the design process. It raises such questions as (i) how can a system be designed to not interfere with the child-therapist relationship, but instead help facilitate interpersonal communication commitment? (ii) How can a system be designed to allow children to freely express themselves without imposing agenda or other demands onto them?

MAGIC LAND
Magic Land is a package of four play activities designed to create opportunities for storytelling, creative and emotional expression, imaginative play and new play opportunities such as manipulation of fire, play in the digital water, and many more. Unlike traditional play games, the application is designed as a non-goal oriented virtual environment where the child has freedom to choose among such activities as drawing; mixing colours; using background pictures and characters; options to create a hero or an avatar; play with fire, water, snowflakes and rain.

We chose interactive tabletops as a platform for Magic Land package due to its collaborative nature. Unlike a traditional computer, interactive tabletops are designed for more than one user, which gives the therapist the necessary access to witness the child’s play. In addition, the child gets access to greater manipulation of images in the virtual environment that can potentially support their emotional and creative expression. Manipulation of the natural forces in Magic Land, that is not available in traditional play therapy room, create opportunities for the development and practice of a sense of mastery.

PRELIMINARY FINDINGS
The initial findings suggest that either interactive tabletop or Magic Land did not negatively influence the development of the child-therapist relationship, which is seen as a core principle of therapeutic change for emotional wellbeing improvement. On the contrary, because Magic Land is not a structured play, the technology brings the therapist and child together in exploratory and creative activities. It serves a motivational and icebreaker function allowing an opportunity for the child to connect with their inner world and share thoughts and emotions with the therapist through a medium that is both familiar and comfortable to them.

CONCLUSION
Despite the widely spread opinion that technology puts the relationship building process in non-directive play therapy at risk, our study suggests that technology can actually support the development of therapeutic alliance. For this to happen, however, the design has to be in line with non-directive play therapy principles. We are currently conducting an extensive real-world, long-term deployment of Magic Land. In this study we are able to collect video and log data recording children’s use of Magic Land, as well as standard mental wellbeing measures to investigate the impact of the deployment. This ongoing study is crucial in enabling us to initiate an evidence base that explicates the potential for digital technologies as toys that support children’s emotional wellbeing and mental health in non-directive play therapy.

REFERENCES
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