

PEOPLE IN MY LIFE

**A Conceptual and Technological
Exploration of Felt Closeness
for Social Work Practice**

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Our Promise to Youth

Background

The People in My Life project was an interdisciplinary innovation project inspired by the vision to unlock the potential of 'felt closeness' (i.e., subjective perceptions of closeness to family and community members) for social work practice with children and young people. The central idea of the project was to develop a technology-based means (i.e. a tablet app) to assess and use this construct in social work practice.

We refer to interpersonal closeness as *felt closeness* to capture the *subjective* qualities of relationship closeness (as opposed to more objective indicators of closeness, such as degree of relatedness, physical proximity, or frequency of contact).

Felt closeness has been defined in multiple ways, with most researchers agreeing that it typically involves feelings of intimacy, positive affections, and self-disclosure (Paulson, Hill and Holmbeck, 1991). As we will describe later, it is associated with important developmental outcomes and therefore considered an important construct in research, assessment and intervention in social work practice, with real world benefits for the lives of children and families.

The project aimed to improve on the available means to capture and use this important construct by co-developing a novel app with and for social workers and service users in the UK, capitalizing on technology to extend the possibilities of existing measures in five important ways.

By co-developing a tool that is:

1. light and easy to use in the field.
2. tailored for a wider age range than existing measures, including children from age six¹. The tool was envisaged to allow for the capture of multiple users' perspectives, including the perspectives of children, which are often under-represented.
3. interactive and fun, which is important for motivation and engagement in assessment processes and intervention. The playful approach of the measure might also provide an effective angle for therapeutic interventions, and could potentially even involve therapeutic effects in and of itself.
4. designed to track the temporal dimensions of relationships, such as (in)stability of felt closeness during or across sessions. These dimensions may be valuable for understanding family dynamics, and they could also be used to evaluate the effectiveness of interventions over time.
5. designed to assess and to help integrate quantitative and qualitative data for research and applied use.

1. The minimal age derives from cognitive and motor developmental steps acquired during preschool. Existing diagnostic tools using symbolic play to assess family dynamics are used for a comparable age range (e.g., Gehring, T. M. (1998). Familiensystemtest (FAST), 2. Auflage. Göttingen: Beltz).

We envisaged that these five dimensions of the app would support assessment processes and interventions in social work practice. The project was designed to test selected aspects of this claim empirically.

The app was designed to use a tablet in combination with tangible objects to provide social workers with an easy-to-use and portable tool that captures perspectives on felt closeness, and to enable users, including children, to create scenarios with symbolic figures that represent real relationships.

To use the app, children would be requested to place the figure of a child (the target figure) on the tablet. We envisaged the ability for children to personalise their figurine by choosing a colour and/or emoji that communicated something about the person being represented. Children would then be asked to pick other figures one by one (“which figure is also important for the child?”) and position it on the tablet (“Where does this figure stand in relation to you?”). Additional instructions can be used to tap ideal (wished for) states (“Where would the child like to be”?) or special constellations in times of need (“When a big dog enters the scene, where does the child go?”).

General Relevance of Felt Closeness for Child Development

We focus on improving the assessment of felt closeness because felt closeness is important for human development.

Perceiving one’s social ties as close and reliable during childhood is associated with important developmental outcomes, such as self-esteem (Birkeland, Breivik and Wold, 2014; Harris, 2015), and psychological health (Campos et al, 2014). Felt closeness has also been linked to resilience – that is, the ability to cope with developmental challenges and traumatic experiences. For example, children who feel close to their parents tend to cope better with the parents’ divorce (Palosaari and Aro, 1994; Sobolewski and Amato, 2007). Additionally, there is evidence suggesting that felt closeness to parents during childhood and adolescence predicts long-term outcomes later in mid-adulthood, among them psychological adjustment and satisfaction with life (Flouri, 2004), as well as physical and mental health (Russek and Schwartz, 1997). Furthermore, felt closeness may reflect other important resources. For example, closeness in parent-child relationships is associated with parental warmth (Hill, 1980; Maccoby and Martin, 1983) and it is discussed as a central predictor of social support (Sarason, Shearin, Pierce and Saranson, 1987). These resources may each play unique roles in promoting children’s positive development.

However, assessing a complex network of family characteristics may not always be feasible – either in research or intervention. Felt closeness may provide a parsimonious but valid proxy for a range of relevant resources that are available in a social

system. For example, differences in closeness between family members may indicate who is likely to provide reliable support for a child. In planning interventions, social workers could thus use felt closeness to identify effective allies, or they could focus on supporting crucial relationships that seem to lack closeness.

Specific Importance of Felt Closeness to Social Work Research and Practice

Social workers and service user families were envisioned as the central user groups of our tool/measure.

British and international bodies define social work as the practice of promoting personal and social change, problem-solving in human relationships and empowering individuals and groups, at all points in the lifespan, enabling liveable lives and human flourishing.

The project was developed with and for social workers because relationships, and assessment of those relationships, are at the core of social work practice. Social work research demonstrates links between quality of assessment and outcomes for children in contact with children's social care services (Turney et al, 2011), and a core aspect of social work education and practice is to develop the ability to recognise supportive relationships that can help in building resilience.

Social workers use a range of tools to support the assessment process, including genograms (to map family relationships) and ecograms (to map community relationships). Underlying these tools are key constructs of attachment (Howe 1995) and ecological systems theory (Bronfenbrenner 1994) (cf. Boushel, Whiting and Taylor, 2010).

Attachment theory, informed by research in clinical psychotherapy (Ensink and Mayes, 2010; Fonagy, Target and Phillips, 2005), has been incredibly influential for how social workers think about relationships. The concept is also used to understand important relationships between the primary carer (typically mother or father) and the child. Ecological systems theory is used to help social workers situate a service user (e.g. a child) within a network of relationships within and beyond the family, as it is these relationships that are often called upon in times of crisis. Research on ordinary support that makes life liveable, also suggests that specific instances of help and support are 'nested' within layers of wider relationships and previous experience (Anderson, Brownlie and Milne, 2014).

Mapping children's relationships in social work practice aims to tap into supportive and unsupportive relationships in a person's life as a way of building a relationship with a service user and understanding where a social worker's efforts to support might best be placed.

In summary, felt closeness is considered important for posi-

tive development, with prospective studies suggesting long-term effects across decades. Felt closeness also reflects additional resources that are valuable for research and social work practice but difficult to measure.

Unlocking the Potential of Felt Closeness for Social Work in England

The People in My Life project set out to provide a feasible means to infuse the promising construct of felt closeness into social work practice

Available protocols in social work for describing relationships, resources and problems in families (e.g., genograms) are complex and not used to their full potential. Furthermore, these protocols are typically time-intensive and may be subject to language barriers.

In comparison, past research has established highly economic means of measuring symbolic, graphical representations of closeness (Aron, Aron and Smollan, 1992; Le, Moss and Mashek, 2007) which will inform the development of the People in My Life App. This approach can be used across age groups, educational levels, and language skills (i.e., it may be used in different languages), which facilitates integration of multiple service user perspectives.

Central Assumptions

We expected that the People in My Life App would be suited for children aged 6 or older, as well as adolescents and adults. That is, we assumed that these age groups will have no trouble understanding the procedure, can operate the People in My Life App, and will provide quantitative data (e.g., distance in mm between a given pair of figures) with meaningful between-person variation. We also assumed that social workers would perceive the measure as helpful for supporting their practices of assessment.

These assumptions were tested through a co-design workshop with social workers who fed back on our initial thinking and project design; and through data collected during individual test runs.

1 Conceptual Framework

Our conceptual framework was modified following feedback from the social workers workshop in Sussex. The original focus of developing a new tool for measuring interpersonal closeness (felt closeness) was modified on the basis of social workers' feedback to our thinking. The feedback we received from the social worker group was threefold:

- there is a huge diversity across children, dimensions other than closeness are important;
- closeness is not necessarily a desirable state for some of the children who get referred to social workers (e.g., in the case of child abuse). At least two dimensions should be included for exploring the meaning of closeness in relationships, e.g., close/distant and good/bad;
- collecting relationship information from a child provides information but also helps to build a relationship with the child.

In response to this feedback, we redirected our literature review and re-framed the project. We no longer imply any a priori value judgement regarding closeness perceptions; such information needs to emerge from the child. We also sought to strengthen the potential of the app to support the formation of the child-social worker relationship. This conceptual framework informed the direction of our pilot study, where we compared the app to a paper-pen procedure based on traditional ecomapping (as used in social work to gather information about the child's significant relationships). We anticipated that the app would fare better than the paper-pen activity regarding both the child's engagement and in supporting the formation of the child-social worker relationship.

2 Technical implementation: Design and Development of the Tablet App

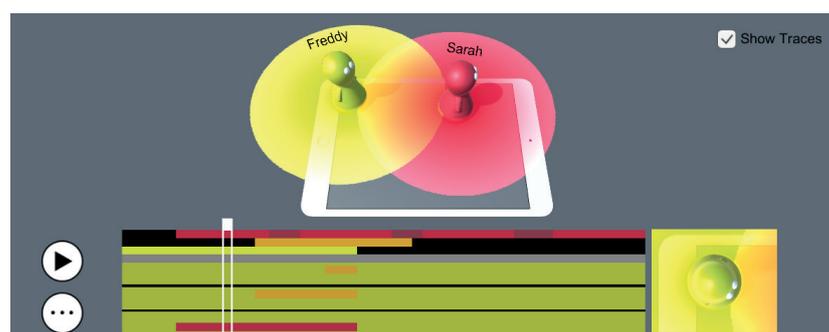
After the initial workshop with social workers the first version of the People in My Life app was developed in Swift for iOS and currently runs on a 12" Apple iPad Pro. The figurines are tracked using capacitive markers. We ran tests with different materials to test their applicability for our figurines and opted for electrically conductive foam. The markers generate a unique geometric pattern of touches that is recognized by the screen. Using these patterns, we can reliably identify up multiple figurines and thus assign them different dedicated roles for a session.

In addition, to follow up the workshop with the social workers, we wrote a mock-up app (v0) and recorded a short video to show the intended interaction and gather additional feedback as another feedback channel after the workshop. Illustrations of the mock-up video of the app prototype can be found in the appendix. The video can be seen here:

<https://www.youtube.com/watch?v=QS2kbKOKR5A>

We iteratively refined the application over the course of the project, including the feedback and materials we received. This allowed all involved parties to understand the current state and functionality of the app, and to add requests. We iterated both over the user interface, making sure it included the elements needed during the sessions with the kids, and the logfiles to make them as generic as possible to allow for a thorough post-hoc analysis. The final version of the People in my Life App was eventually used for the user-test in Brighton.

The figurines used with the app, the app icon, and the individual screens of the app were designed by designer Lisa Jacob in close collaboration with the project team. The goal was to create an overall design that is both aesthetically pleasing and functional and that would particularly appeal to children. We considered the social workers' feedback, technical parameters, and psychological criteria as provided by the team. An overview of the evolution of the design (including mood-boards for the shape and material of the figurines, development of the



app icon, and development of the screens) is attached as complementary material.

In addition, we developed a dedicated desktop application that takes the log-files generated during the sessions on the iPad and extracts the metrics determined to be relevant. The advantage of calculating the metrics offline is that additional measures can be added once the experiment has been run. We calculated average, minimum, and maximum values for the relative distance and angles between two tangibles, the accumulated movement while being on screen, the area covered on screen, and the time a tangible is on screen during a session. These measures were then imported to a statistics program.

To replay a recorded session, we implemented a tool that takes the log-files and renders an animation of the scene in 3D. In contrast to a simple screen-recording on the iPad, this gives more context as one can see the figurines standing on the screen, and not only what was shown on the screen below them. This tool also provides some activity indicators (e.g., placement of a new tangible on screen, high amount of motion) to support activity-based navigation in contrast to time-based navigation.

3 Measures

A battery of measures was used to test usability and user experience. Within the comprehensive data that we collected, the conceptual framework guided our focus of analyses as follows.

Qualities of social relationships as derived from the iPad activity. The app records a wealth of dynamic data derived from the movements of the figurines and the simultaneous audio recordings. Our focus for the first quantitative data analyses pertained to the position and orientation of the three figurines. More specifically, we calculated the *spatial distance* between each pair of figurines, and their *mutual orientation* (i.e., looking towards each other vs. looking away from each other).

Qualities of social relationships as derived from the paper activity. For children assigned to the paper condition, a digital voice recorder was used to audio record the interaction, and we archived the ecomaps created during the activities for qualitative analyses.

Self-report data. Pertained to (a) the child's evaluation of the activity, (b) the child's evaluation of the experimenter, and (c) covariates (of particular interest: health-related variables).

Project Outline

Phase 1 Development (January-April 2016)

Ethical clearance was granted from the University of Sussex C-REC. An early prototype of the app (v0) and the figurines was developed to present to and get feedback from participants of a co-design group in February. A co-design workshop with social work academics and practitioners took place on February 29th and March 1st, 2016 at the University of Sussex. This workshop provided the team with rich feedback that informed the project both conceptually and with respect to practical issues regarding the implementation of the app. The app concept was refined, and we worked with a designer in addition for developing the figurines and screen design. A mock-up video of the modified prototype of the app (v0) was created and the design of the figures was finalized. Following initial consultations, an internet survey was also created to obtain the social workers' continued feedback on various prototypes of the app. This survey was inspired by system usability measures and will be used in lieu of our initial plan to run additional workshops, which were not feasible due to social workers' availability.

Phase 2 Design (May-June 2016)

Work on the app continued based on feedback from the co-design workshop and led to our first version v1. In addition, multiple figurines were produced using 3D print and also hand-crafted out of wood. Literature reviewing continued, including review of additional candidate measures to be assessed along with felt closeness to explore construct validity. The initial prototype app v1 and figurine design were finalised. Design of the iPad icon and screens were finalized. Measure selection was completed, and we created all required forms and testing materials. We applied for and were granted official permission from Brighton and Hove Local Council to set up a tent on Brighton beach.

Phase 3 Data collection (July-August 2016)

Our data collection was carried out on two days during the summer holidays (August 22nd and 23rd, 2016) on Brighton beach, UK.

Phase 4 Data preparation, analyses and publication (September 2016-March 2017)

Data was retrieved from the iPad that was used during the experiment on the beach and the previously defined measures were successfully extracted from the logged data. Log-files were converted to import into SPSS and entered the self-report data. We cleaned and aggregated the data in preparation for the quantitative analyses, completed the statistical analyses, and performed first exploratory analyses of the qualitative data.

Methodology and measures used for assessing the People in my Life app

In the present study, we compared two procedures, both aiming at facilitating conversations between children and social workers about the child's relationships.

We compared these two procedures - one using the *People in my Life* App on the iPad, and one using a conventional ecomap paper procedure - with respect to the children's evaluations of both the procedure and of the social worker they interacted with.

Our hypotheses were:

1. Children using the iPad will rate this activity better than children using the paper procedure.
2. The 'social worker' (experimenter) supporting the activity will be rated more favourably by children in the iPad vs. paper condition.

Towards a first exploration of construct validity, we furthermore examined associations between assumed indicators of closeness as derived from the iPad with (a) self-reported relationship closeness and (b) self-reported indicators of psychological and physical health.

Design

Children were randomly assigned to two testing conditions - iPad activity and paper activity. We approximately stratified both conditions by age and gender. We assessed data before and after the activities and analysed both within- and between-subject effects.

Participants

We set up a testing tent at Brighton Beach (U.K.) during the summer holidays after approval of local authorities and approached children and their guardians in the area. Children were invited for participation if they were aged six to twelve years and possessed sufficient English skills to understand the instructions. In total, 25 children aged 6-12 years ($M = 9.3$, $SD = 1.79$)² participated in the study. For a more detailed sample description see table 1.

Table 1. Age of participants split by conditions and sex

Condition	n	Boys			Girls		
		M (SD)	Range	n	M (SD)	Range	
iPad	5	9.6 (1.89)	6.75-11.3	8	9.2 (1.85)	6.58-11.42	
Paper	6	10.4 (1.55)	8.3-12.42	6	7.8 (1.08)	6.7-9.3	

2. One parent did not complete the parents' questionnaire and $n = 3$ parents did not indicate their children's month of birth. $N = 3$ recordings were missing due to technical problems.

Procedure

The local Co-PI (Dr. Sevasti-Melissa Nolas) took on the role of ‘social worker’/experimenter for all participants and project associate Florian Heller was present for technical support. PhD and MA students from the School of Education and Social Work, University of Sussex, volunteered as assistants to support the field experiment. All volunteers were briefed by the local Co-PI (Nolas) with regards to the aims and objectives of the study, the measures being used and the procedure to follow on the beach. Sampling and testing followed a standardized procedure (see experimenter’s manual, attached).

After providing written informed consent, children and guardians were tested separately. The child first answered a short questionnaire about his or her first impression of the experimenter (viewed at a distance). In the meantime, the guardian answered a questionnaire about the child’s demographics and health. Next, the child was guided by the experimenter to engage in the iPad or paper activity, while recounting to the experimenter about his or her social relationships. The experimenter prompted the activity using the same questions in either condition:

- Asked children to select one figurine to represent themselves
- Asked children to assign the remaining two figurines according to who they considered important people in their lives
- Who would you go with good news (communication)
- Who would you go with bad news (communication)
- Anything else in relation to you and the important people you would like to share
- Asked children to draw themselves in the middle of the page
- Asked children to draw/write roles important people in their lives
- Who would you go with good news (communication)
- Who would you go with bad news (communication)
- Anything else in relation to you and the important people you would like to share

In order to allow children to tell their individual narratives, only the above-mentioned questions and prompts were standardized. After the activity, the child answered another questionnaire on their evaluation of the app, their appraisal of experimenter, their health and life satisfaction, and their perceived closeness to the two protagonists chosen for the activity. For standardization, all questions were read out loud to the children, even in the case of literacy. After participation, children were thanked and given a small toy reward.

Measures

Relationship dimensions as expressed during the activities

- **Qualities of social relationships as derived from the *iPad* activity.** The app records a wealth of dynamic data derived from the movements of the figurines and the simultaneous audio recordings. Our focus for the first quantitative data analyses pertained to the position and orientation of the three figurines. More specifically, we calculated the *spatial distance* in millimeters between each pair of figurines. The mean distance of the child figure to the other two figures was 116.67 mm (SD = 10.46, range: 91.5 – 126.5 mm; low values indicate less spatial distance). Additionally, we calculated the figurine's *mutual orientation* in angles (as an indicator of looking towards each other vs. looking away from each other). The mean angle of the child figure to the other two figures was 44.62 (SD = 15.41, range: 17-61; low values indicate turning towards each other and high values indicate turning away). For each child, we calculated the mean, minimum, and maximum for each pair of figurines during the activity, and a mean, minimum, and maximum score for all three figurines combined. Data for these measures were unavailable for one child due to technical failure to record.
- **Qualities of social relationships as derived from the *paper* activity.** For children assigned to the paper condition, the app was used to audio record the interaction, and we archived the ecomaps created during the activities for qualitative analyses.

Self-report data

An overview of the used self-report measures is provided by Table 3. These measures pertained to (a) the child's evaluation of the activity, (b) the child's evaluation of the experimenter, and (c) covariates. Self-report measures were chosen based on multiple considerations, among them conceptual fit, psychometric qualities (e.g., reliability), suitability for the age range of our sample, and pragmatic aspects (e.g., length). When no suitable published measure was available for a given construct, we created new items that we based on available instruments.

- **Children's evaluation of the activity.** The commonly used system usability scale (Brooke, 1986) for children is not suited for young children (e.g., complex wording; focus on interface adequacy that was no criterion in our case), and we are not aware of any version adapted for children. In adults, aesthetic qualities and fun are crucial factors besides usability when evaluating technological systems (e.g., Thüring & Mahlke, 2007). For children, enjoyment (often termed also "fun") is a very accessible dimension (Read, MacFarlan & Carsey, 2002). Other dimensions may not be accessible to children; however, evidence suggests that most elementary children have the ability to at least distinguish between fun and easiness of use (Read, MacFarlane & Carsey, 2002; Read & MacFarlane, 2006). We therefore assessed easiness of use and enjoyment of the activity as indicators for children's evalua-

Table 3. Documentation of the used self-report measures.

Construct	Measure	Source	Modification	Informant
Evaluation of Activity				
Easiness of use	2 items 5-point Likert scale	Brooke, J. (1986). SUS -A quick and dirty usability scale. (retrieved from http://hell.meiert.org/core/pdf/sus.pdf?//).	Used Items: 3, 7 Changed wording of items and response options	child
Enjoyment	pictorial scale	<u>Smileyometer</u> Read, J., MacFarlane, S., & Casey, C. (2002). Endurability, engagement and expectations: measuring children's fun. <i>Interaction Design and Children 2</i> , 1-23.	-	child
	1 item 5-point Likert scale	<u>Again-Again Table</u> Read, J., MacFarlane, S., & Casey, C. (2002). Endurability, engagement and expectations: measuring children's fun. <i>Interaction Design and Children 2</i> , 1-23.	Changed wording of items and response options	child
General evaluation	3 items with open responses	Newly developed	-	child
Evaluation of Experimenter				
Experimenter liking	6 Items 5-point Likert scale	Newly developed items to capture trust and liking	-	child
Covariates				
Closeness	2 x 1 pictorial item	<u>Inclusion-of-other-in-the-self-scale</u> Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of other in the self scale and the structure of interpersonal closeness. <i>Journal of Personality and Social Psychology</i> , 63(4), 596-612.	Pairs of circles were rearranged so that all fit into one column (instead of presenting them in two rows). Circles were printed in yellow and the text ("self, other") was removed	child

(table continues on next page)

Table 3 (continued). Documentation of the used self-report measures.

Construct	Measure	Source	Modification	Informant
Health-related Quality of Life	52 items 5-point Likert scale	Ravens-Sieberer, U., Gosch, A., Rajmil, L., Erhart, M., Bruil, J., Power, M., & Kilroe, J. (2008). The KIDSCREEN-52 quality of life measure for children and adolescents: Psychometric results from a cross-cultural survey in 13 European countries. <i>Value In Health</i> , 11(4), 645-658.	Individual items were unavailable in English. We used items from a published German version and translated them to English.	guardian
Health	3 items 5-point Likert scale	Ravens-Sieberer, U. et al. (2010). Reliability, construct and criterion validity of the KIDSCREEN-10 score: a short measure for children and adolescents' well-being and health-related quality of life. <i>Quality of Life Research</i> , 19(10), 1487-1500.	Used items: 7, 9, 10	child
Life Satisfaction	2 items 5-point Likert scale	Ravens-Sieberer, U., Gosch, A., Rajmil, L., Erhart, M., Bruil, J., Power, M., & ... Kilroe, J. (2008). The KIDSCREEN-52 quality of life measure for children and adolescents: Psychometric results from a cross-cultural survey in 13 European countries. <i>Value In Health</i> , 11(4), 645-658.	Used items: 6, 8	child
Demographics				
Sex	Dichotomous question	Newly developed	-	guardian
Age	2 open questions	Newly developed	-	guardian
First language	1 item dichotomous question	Newly developed	-	guardian
Guardian's relationship with the child	1 item 3 response options	Newly developed	-	guardian

tion of the activity. These constructs were measured with two items each that were based on available measures (easiness of use: range = 2.50 - 5.00, Mean = 3.520, SD = 0.784, Cronbach's α = .423; enjoyment: range = 3.00 - 5.00, Mean = 4.08, SD = 0.786, Cronbach's α = .472). For qualitative analyses, we included two additional questions regarding the evaluation of the app with the possibility for open responses.

- **Evaluation of the experimenter.** The children's interaction with the experimenter was shorter and more superficial than the relationship building process in social work practice. As a proxy for the app's potential to support the relationship-building process, we assessed the children's evaluation of the experimenter before vs. after the interaction in terms of liking and trust. For lack of suitable available measures, we newly created six items and applied them before (range = 2.17 - 4.83, Mean = 3.36, SD = 0.643, Cronbach's α = .665) and after the interaction (range = 2.67 - 5.00, Mean = 3.806, SD = 0.693, Cronbach's α = .735).
- **Covariates.** We assessed several covariates to investigate their association with the iPad-based indicators of closeness (i.e., spatial distance and mutual orientation). Towards a first exploration of convergent construct validity, we assessed self-reported relationship closeness for the two protagonists using a pictorial measure based on the Inclusion-of-other-in-the-self-scale (Aron, Aron, and Smollan, 1992; range across both persons named during the activity = 3.50 - 7.00, Mean = 5.88, SD = 1.024). In order to explore criterion validity, we assessed the children's health and life satisfaction, as both have been associated with relationship closeness in children. Children answered four questions related to psychosocial health (range = 2.00 - 4.75, Mean = 3.95, SD = 0.759, Cronbach's α = .694) that we used in the analyses. Guardians answered the KIDSCREEN-52 (Ravens-Sieberer et al., 2008) to rate multiple aspects of the children's health and well-being (which will be subject to later analyses) and provided the demographic information for the children.

Qualitative data collection

The qualitative research was designed to 'walk alongside' and document the lived experiences of the experimental design. For this each testing session was audio recorded. The experimenter logged her notes and reflections on each test in both conditions immediately following the testing session. The experimenter also wrote a short overall reflection of the two-day testing process on the beach, including observations and experiences from performing the role of experimenter.

The audio recordings were transcribed verbatim, and were systematically analysed using a combination of conversation and thematic analyses (Braun & Clarke, 2006; Liddicoat, 2007). The experimenter's notes made on the day and reflections on her experiences of carrying out the test will also form part of the qualitative data analysis in line with reflexive practice in qualitative research analysis (Willig, 2000).

Initial quantitative results and qualitative findings

The data from our project are being analysed quantitatively and qualitatively. Both the quantitative top-down approach and the qualitative bottom-up approach search for patterns in the data, in the form of statistical associations between variables that can indicate patterns across individuals (top-down), or as convergent patterns emerging across individual observations (bottom-up), respectively. Below, we present the first results of these complementary approaches. The approaches converged in identifying some reoccurring themes in the data, but each analytic approach also identified unique areas of interest. In working towards the submission of a co-authored manuscript, we are currently integrating these perspectives.

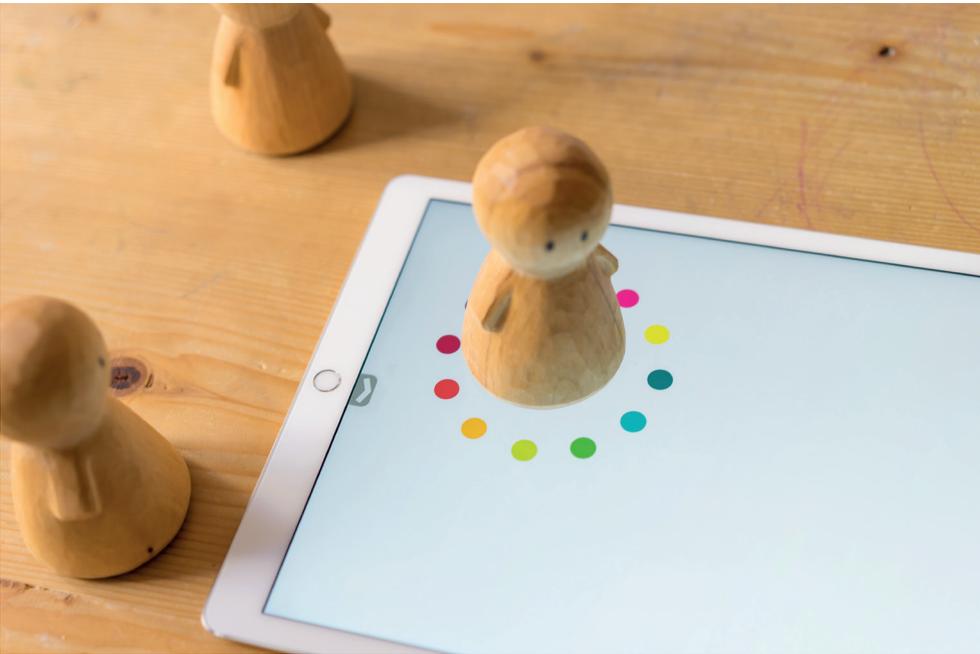
Quantitative results

Sample description

We accomplished to stratify the conditions (iPad / paper) by age and gender (see sample description in the documentation of methods). There were also no differences between children in the two conditions regarding initial appraisal of the experimenter ($t = .52$ ($df = 23$), $p > .05$) and in the children's self-reported health experimenter ($t = .73$ ($df = 22$), $p > .05$).

Potential of the app to support children's engagement with the activity

- **Enjoyment of activity and ease of use.** Children's enjoyment of the activity was high in general ($M = 4.08$, $SD = .78$) and comparable for children in the iPad vs. paper condition ($t = .27$ ($df = 23$), $p > .05$). Children of both groups rated the activities as relatively easy to perform ($M = 3.52$, $SD = .78$, range = 2.5-5.0), with no significant differences between the groups ($t = -.12$ ($df = 23$), $p > .05$).
- **Duration of activity.** There was a marginally significant effect of children in the iPad condition to take longer than children in the paper condition (iPad: $M = 341$ seconds, $SD = 79.09$; paper: $M = 433.08$ seconds, $SD = 139.47$; $t = -1.907$, ($df = 20$), $p = .07$). This marginally significant effect is likely caused by higher standard deviations among iPad kids than paper kids. These differences may be interpreted as an indicator of engagement; however, time differences may alternatively be due to multiple other factors (such as technical requirements for running the app) that need to be explored in future research.





In essence, we expected that the iPad activity would support the children's engagement to a greater extent than the paper activity. This hypothesis was not supported; both activities – iPad and paper activity – were equally suited to engage the children in the activity, and both activities were rated as rather easy to perform. This positive appraisal is also reflected in the initial qualitative results.

Potential of the app for supporting relationship building

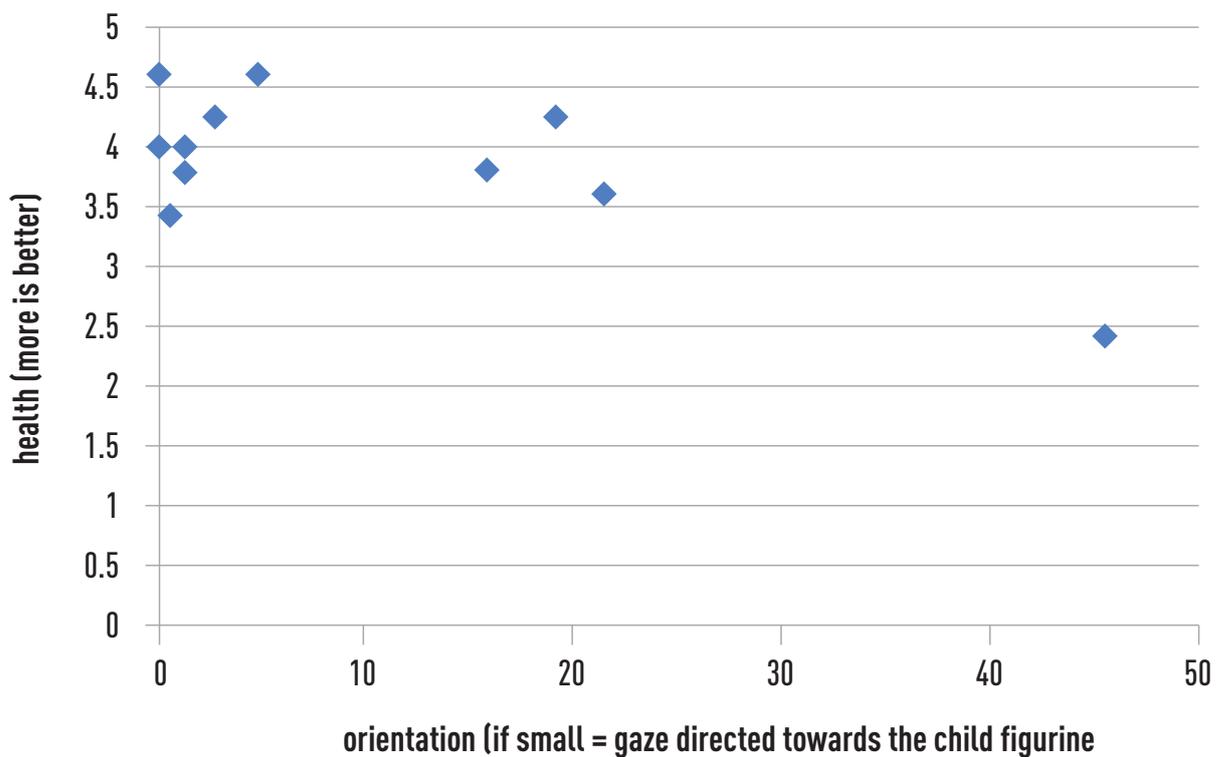
We expected that the iPad activity would be associated with better liking of the experimenter afterwards (i.e., with a greater increase in liking from pre- to post assessment). This hypothesis was not confirmed: The groups were comparable in experimenter liking after the activity ($t = 1.19$ ($df = 22$), $p > .05$). For both groups, initial liking predicted post-activity liking ($b = .86$ ($SE = .12$), $p > .001$). The direction of this association was an increase in liking from pre to post, suggesting that both activities were supportive in building the initial relationship with the experimenter. This increase was invariant between the two groups ($b = -.20$, ($SE = .16$), $p > .05$).

Explorations of construct validity

- **Closeness in iPad-Interface-Data and in Children's Self Report (Questionnaires) Interrelations of assessed closeness facets.** There were no associations between self-reported closeness (as assessed with a questionnaire) with closeness-related measures in the interface data (i.e., with spatial distance of child figure to the other figures, $r = .25$, $p > .05$; or with mutual orientation /"gaze" to the other figurines, $r = -.34$, $p > .05$). This could indicate that the app captures dimensions of social relationships that are unrelated to the dimensions accessible in self-report. This interpretation may, however, be constrained to the specific pictorial measure that we used in the self-report assessment. Future research will be needed to validate this observation.
- **Association between self-reported closeness and health** Children reporting more closeness also reported better health ($r = .52$, $p > .01$). It is noteworthy that this result is in line with the developmental notion that closeness may promote healthy development and reflect important resources that are conducive in this regard. According to the social worker's feedback to us during the initial workshop in 2016, this may, however, not generalize to the situation of the children who work with them. This may imply that there's a mismatch in our chosen combination of concept (closeness) with users (social workers and children using social work). However, using this concept as an indicator of successful development in psychological research and diagnostics might be promising.
- **Association between closeness indicators captured by the app and health.** There were no associations of spatial distance between the figurines on the iPad with the children's self-reported health ($r = .29$, $p > .05$). However, we did observe an association between the mutual orientation of the figurines (their "gaze") with self-reported health: As illustrated by figure 1, children with smaller minimum

scores in the orientation of the child figure towards the two other figures reported better health (figure 1: $r = .51$, $p = .09$; figure 2: $r = .72$, $p < .01$). This result may be interpreted as indicating that children reported better health if their relationship figures were oriented towards their avatar *at least once* during the activity. In contrast, there was no relationship between the children's self-reported health with the mutual orientation among the other two figures (i.e., excluding the dyadic relationship with the child avatar; $r = -.25$, $p = .42$). It should be noted that this result should be regarded as an interesting initial observation rather than a statistically reliable result. In the small available sample, the apparent association was due to one child with low health and limited mutual orientation. Nevertheless, we will follow up on this observation in our future work, as the possible implications of this observation are intriguing: should we be able to replicate this result, mutual orientation may in fact be a meaningful dimension in children's free play that is important to consider. In this case, technology-based assessment by means of the People in My Life App could offer a unique opportunity to capture this dimension.

Figure 1. Children reported better health if their relationship figures were oriented towards their avatar *at least once* during the activity



Qualitative findings

From a qualitative research perspective, the interactions being analysed are emblematic of relationship formation, which our quantitative data suggests was particularly successful during testing in both testing conditions (e.g. children reported liking the experimenter more in their post-test questionnaire). The systematic analysis will look at the strategies used by the experimenter and the children to create these relationships that were judged by children as being successful. The data will be analysed comparatively looking for similarities and difference between interactions in the two testing conditions: iPad and pen and paper. Finally, the context in which the data collection took place, the seaside, also needs to be considered in thinking about these successful relationship formations.

Below we present some of the emergent findings from the qualitative data. At this stage, these are largely descriptive and provide an indication of how we anticipate the analysis to unfold.

The quantitative findings showed that children enjoyed the activity in both testing conditions. The qualitative research provides us some examples of what children's enjoyment looked like in practice. There are three themes that have emerged from an initial exploratory analysis of the qualitative data. These are rapport, storytelling and disclosure.

Rapport

The following two examples show children and experimenter striking a *rapport*. The first extract comes towards the end of the testing session with Ari, a boy in the 6-8 age group, who was taking part in the activity testing the iPad condition. When asked the standard final interview question 'is there anything you want to ask me?', Ari turns the tables around on the experimenter and becomes the interviewer.

Melissa: Oh okay, lovely. Good, well I don't have any other questions to ask you, is there anything you want to ask me?

Ari: Who's your best friend?

Melissa: Who is my best friend? Erm, a woman called Rebecca who lives in Glasgow.

Ari: Erm..

Melissa: But actually I have many best friends, a bit like you. I find it quite hard to choose.

Ari: Erm, err... what's your favourite thing to do?

Melissa: Swim. And today I can't. I have to wait until the end of the day.

Ari: What's your favourite... food?

Melissa: My favourite food? Sushi.

Ari: Mine's sausages!

Melissa: Okay, alright Ari...

Ari: What's your favourite movie?! [very excited]

Melissa: My favourite movie, err... Oh too many, too many!

Ari: Okay, I'm going to put them back then...

Melissa: Okay, okay. Alright Ari, I think Lucy wants to ask you a few more questions, and then you're done. Thank you so much.

A further example comes from John, a boy in the 6-8 age group, who is in the pen and paper condition. Here rapport is initiated by John at the beginning and at the end of the interview in response to the experimenter's perceived (initially) and then experienced 'personality'.

Beginning of interaction

Melissa: Lovely, so I'm going to put this here. I'm actually going to kneel a bit because this is a bit high. Okay, so, do you know what we are doing here today?

John: Erm, no actually I do not know, I have no idea.

Melissa: That's okay. So, I'm a researcher...

John: Ohhh [sounds impressed]

Melissa: ...and I'm interested... *laughs* um, that's a nice response. Um, and I'm interested in children's lives and as part of my job I ask children a lot questions. I've only got...

John: Yay I like, I like questions.

End of interaction

Melissa: ...I don't have any other questions for you John, do you have anything you want to ask me?

John: Erm, nah.

Melissa: Nah? Okay, well do you then want to then go back... Yeah go on.

John: I don't have a question but though, but I have something to say, that for your personality...

Melissa: Yeah

John: ...you are very, very, very, like every time, very nice.

Melissa: Oh! Thank you, thank you very nice that's a really lovely thing to hear.

John: I'll go...

Melissa: Thank you. Well do you want to go back to Mary [volunteer] and she'll ask you a few more questions. Thanks John!

It isn't unusual in research encounters with children from children to turn the tables around on researchers and take on the role of the interviewer and such rapport is particularly important in relationship formation. Further systematic analysis will explore the competencies, strategies, and tactics employed by the speakers in building 'rapport', as well as the themes emerging from their conversations.

Storytelling

During the testing the experimenter noted similarities and differences in the ways in which children approached the task at hand in both testing conditions. Regarding the app, it was the

experimenter's experience that children did not find the activity entirely intuitive and had to be prompted in order to move the figurines around. However, when figurines were moved around the data that emerged from these interactions were rich and evocative of children's everyday lives and experiences as scenes were recreated on the iPad surface.

For example, Tina, a girl in the 9-11 age group, who was using the iPad moved the figurines around a good deal whilst telling her 'good news' story. Tina's 'good news' story was about a boy giving Tina his email address at the end of term. Using the figurines, she enacts the domestic scene in which communication took place, and also describes her decision-making about which parent to confide in first and why.

Melissa: Can you, um, tell me what, if you have good news, can you show me what happens to these people?

Tina: Err, like what do you mean?

Melissa: So say you have a bit of good news you want to share, what, who would you go to?

Tina: Erm it depends what kind of good news it is.

Melissa: Well tell me, give me an example of what makes sense to you.

Tina: Erm, well, at the end of the year this boy gave me his email so there was that good news, and I first shared it with my dad because I was worried I, um, my mum might, like, make fun of me a bit.

Melissa: Okay, alright.

Tina: I guess for a bit of fun and a bit of...

Melissa: Okay, so what did that look like? Do you want to show me on the iPad? Because we can move these around.

Tina: Okay, so like, we were having dinner, so, there was a table between us.

Melissa: Yeah.

Tina: Just like chatting about random stuff and I was just looking up...I didn't, I can't remember what I was talking about but somehow it came up and, yeah. So I shared the good news.

Melissa: Yeah but sometimes the connection... Okay, so this is you two chatting across the dinner table?

Tina: Yeah.

Melissa: Okay, lovely. And then what about when you, did you eventually tell your mum?

Tina: Umm, then when um, I, um, got back to her I told her I had a bit of good news and told her, and she was like nicer than...

[Child screaming in paddling pool]

Melissa: Okay and where was, um, what was...

Tina: Um, we were in our kitchen at home...

Melissa: Okay.

Tina: Just, like, chatting and having a cup of tea.

Such stories provide a glimpse in children and families everyday lives in ways that we feel could be powerful for both research and social work practice with children. They provide opportunities for information exchange as well as opportunities for social workers to intervene with more therapeutic exploration of the situation (next section).

Disclosure

One of the surprising findings to emerge from the testing on the beach was how some children chose to disclose quite personal experiences to the experimenter. Tina, from the previous example, when asked if there is anything else she would like to share with the experimenter, took the opportunity to tell the experimenter a bit more about her family. She started telling the experimenter about her parents' separation in quite a bit of detail, including how she felt, how things were, how they are now, and how she would like them to be (the latter in response to the experimenter's question).

Melissa: Oh, okay, good. Right, is there anything else in terms of these, your kind of important relationships that is important to talk about? Or to share with me? Because I mean I don't know you, I've just met you.

Tina: Well, um, at the end of, I think, yeah year four, at the end of year four, in the summer holidays, my parents moved apart. [M: mmmmm]. So that was quite difficult because like, my, um, I felt like I had to be on both sides when they were talking about each other [inaudible 06:27] so that was, that meant that things with going to people when you're sad. [M: Okay, okay.] Because it was, in some ways, sometimes going to them when they're sad and that was a bit weird and difficult, yeah.

Melissa: Okay, and what was, so what did the configuration look like then? So what did it look like before year four? And what did it look like after?

Tina: So, um, like before year four, um, I was just like sitting out of it confused while they argued a bit. [M: Yeah] And then after year four, it was like, um, when my parents were stressed, I would either go "oh I'm totally on your side" or "yeah I completely understand you" [phone starts vibrating] which was weird because I agreed with both of them in some ways but then it was weird because, yeah. [M: Yeah, okay.] And then, then, I felt like a bit of a messenger because they didn't want to talk sometimes and I was left going "bring this up to your dad" or "...your mum" and it was like, ahh I don't want to get all caught up in this, it's between you.

Melissa: Okay, and what would, so what does it look like now?

Tina: Um, now its, um, pretty good, they keep their distance but they're friendly, most of the time. I, um, my parents don't talk to me so much about it anymore and its pretty good.

Melissa: Okay, and how would you like it to be? And that's my final question.

Tina: Um, I think I'd like it to be how it is now, but with maybe the odd, um, when, because sometimes they go out for coffee just to chat about things with me, I'd like to come with them sometimes, that would be ideal.

We are unsure at this point what aspect of the conversation prior to Tina confiding in the experimenter might have led to the disclosure and further analysis will look the discussion in more depth. Nevertheless, the intimacy of the information that some children communicated was initially surprising given the circumstances: a tent on the beach; a stranger in a tent on the beach; the brevity of the interaction. This is something we will need to consider further.

Analysing the context: the beach

One of the innovations in our approach to sampling was 'sampling in the wild'. We chose to sample on Brighton beach in the summer for convenience following experience from another project (ERC Connectors Study, led by Nolas) where access to schools had been time consuming and without results. The beach context is something that needs to be considered as we try to make sense of some of our testing experiences (e.g. rapport, storytelling, disclosure). There is a long tradition on Brighton beach of people coming to visit palm readers and fortune tellers who sit in huts along the beach with an assortment of props such as tarot cards and crystal balls. It is worth considering how our tent on the beach, with our technological and pen and paper props, may well have contributed to the landscape of longstanding installations of entertainment, and given rise to some of the conversations between some of the children and the experimenter.

The children who are supported by social workers

Finally, by 'sampling in the wild' the team were able to engage with one girl in whose life social services were involved. While this was not planned, indeed we had set out to test the app on a 'typical' population, one of the benefits and challenges of 'sampling in the wild' is not knowing who the 'testing' population might end up being. Towards the end of the first day of testing we encountered Beth, an 11-year-old girl who came to test the app in the tent.

Beth's experiences are closer to those encountered in social work practice. Beth was on the beach with an older woman she describes as her 'befriender'. The woman explained to us that Beth was in-between foster carers. Beth really wanted to take part in the testing.

The interaction was the most challenging of the 26 interactions over the two days. It was the longest exchange taking about 10-12 minutes. It was both hard to engage Beth in the iPad activity and to end the interaction with her, she didn't want to do the activity but wanted to keep talking and telling her story:

Beth: You've got to be careful no one takes it [referring to the iPad]... Yeah I did tell [befriender] that there could be some thieves around here. Disguised. ...No, because when you go on that big wheel [Eye 360], basically there's a lot more than you think, they have scanners, to, to detect if you have guns or anything dangerous.... And then you get a ticket so it means you can go in...However, if you live in Brighton it's free, totally free, if, and its half percent off if you have a, a very special pass.

Melissa: Oh okay, okay. And is that a pass that you have?

Beth: Mmm, no, not quite exactly. I haven't got a pass but I do live in Brighton...However, everyone keeps saying that I live in London...Because there's a Brighton, there's a New Street in London and Brighton.

Melissa: Oh is there? Okay...

Beth: And that's where I live now but I'm going to be moving soon... 'Cos Mary and Jill are my foster parents.

In the experimenter notes, Melissa has written that ‘I would have rather spent the time chatting to her, I would have got better information I think, limitations of structured methods’. During the interaction, Beth said a lot of ‘I don’t know’ and ‘you choose’ and ‘my life is a mess’ and ‘you’re probably not going to like that’. At the time, the experimenter didn’t feel she had been able to engage Beth or to get her interested in the iPad. Later, the experimenter reflected that had she not been working under experimental conditions she would have allowed Beth to tell her story without interruptions; something which Beth attempted to do throughout the interaction. Looking at the transcript, on page 5 of 8, the experimenter is still trying to engage Beth to pick a colour for her figurine, something all the other children had done within the first minute of starting to use the app. In the meanwhile, Beth sidetracks the experimenter with stories about her experiences at school and her various family placements.

Beth is probably an example of where no tool or technology, apart from her own, the Nintendo DS that she is clutching tightly in her hands, will be able to engage her. We would hypothesize that the appropriate ‘technology’ for engaging Beth would be spending time just ‘hanging out’ with her (Nolas, 2014).

Having a child with Beth’s experiences test the app is insightful for future planning and app development with children who social workers are most likely to encounter. The app provides a non-threatening form of interaction, an activity for a child and a social worker to do together through which conversations of mutual benefit may occur. At the same time, it is important to recognize that for some children such activities may be both too much and/or not enough.

Concluding reflections

The project aim of developing a prototype for a new research tool that may in the future grant **new insights** into factors and processes contributing to positive development of children in their family contexts, was accomplished.

Our continued literature review supports the view that closeness is important for development. However, current measurement tools and practices hardly consider children’s own perspectives. Use of our app can foster inclusion of those perspectives that are typically underrepresented (i.e., the perspectives of service users, especially young children).

The app allows for the integration of new dimensions of relationships that were previously not in the focus of analysis when using conventional paper-based procedures. One insight from our pilot data is that the mutual orientation of the used figurines, which is captured by the app, might be a more important indicator of the child’s perceived relationship closeness than the spatial distance between the figures. If this first observation can be replicated in the future, this may spark new research on how this variable can be used both in psychological diagnostics and social work practice.

Our qualitative analysis suggests that like the paper version of ecomaps, the app supports the development of rapport between child and ‘social

worker'/experimenter, and can lead to storytelling and disclosures both of which are important elements in building supportive relationships in social work practice.

Outputs

Journal article

Nolas, Sevasti-Melissa, Pratt-Boyden, Keira, Heller, Florian, Schöning, Johannes and Rauers, Antje (under review) 'From analogue to digital eco-maps for child social work practice? A qualitative analysis of an interdisciplinary innovation project'.

Workshop

An interdisciplinary workshop, "Interdisciplinary dialogues for social work research and practice", was held in Brighton on March 24th, 2017, where our project was presented and discussed. The workshop, which involved another three presentations of interdisciplinary projects with and for children and young people, was very well attended by over 50 delegates, the majority of whom were social worker practitioners. Others in attendance were from the local voluntary sector and the police force who work with young people, as well as a few academics and research students.

Conference Paper

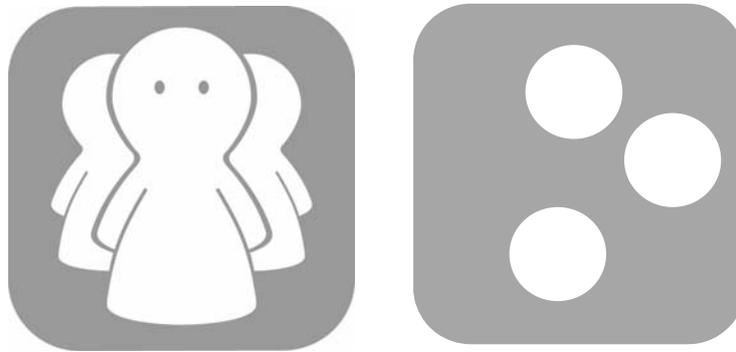
Florian Heller, Johannes Schöning, Lel F. Meleyal, Sevasti-Melissa Nolas, Lena Zeisner, and Antje Rauers. 2016. Who are the people in my life? towards tangible eco-maps. In *Proceedings of the 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing: Adjunct (UbiComp '16)*. ACM, 81-84. DOI: <https://doi.org/10.1145/2968219.2971456> Poster presented at the conference.

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Manual for Testing People in My Life



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1. General information

1.1. Testing site and recruitment

- Testing will take place at Brighton beach.
- Testing will take about 20-25 minutes in total: 5-10 minutes for the iPad, 10 minutes for questionnaires, 5 minutes for formalities.
- Only one child will be tested with one iPad device at a time. If staff allows for parallel testing with two devices is possible.
- Recruitment: Children and their parents will be approached at Brighton beach.
- Testing: Children will be tested in the tent. In the meanwhile parents will answer a parents' questionnaire.

Staff needed for testing

In order to minimize effects of social desirability, iPad and paper activity will be done by one person (= **experimenter**), whereas all questionnaires (questionnaires I, questionnaires II and parents questionnaires) will be assessed by **assistants**. In more detail, this means:

The **experimenter** does the activity on the iPad-/ on paper and pencil (and documentation).

Assistants: In total we will have 3 assistants: 2 assistants will be involved in the recruitment and testing at a time. The third assistant will be on the beach doing outreach. Assistants can rotate roles throughout the day.

- Assistants 1 and 2 are responsible for:
 - Recruitment of participants
 - Welcome
 - Information and consent forms
 - Assignment of IDs
 - Questionnaire I and II (for children) and documentation (assistant 1)
 - Parent's questionnaire and documentation (assistant 2)
- Assistant 3 will be on the beach doing outreach.

1.2. Staff's behaviour during testing

Experimenter effects are especially pronounced in children. Please try to treat all children equally nice, irrespective of how much you like them personally.

FAQs: Know and act according to the FAQs.

Comments and complaints should always be received in a friendly and appreciative way. Try to write down comments and complaints in the documentation form.

Time management

Experimenters and assistants need to keep an eye on the time. The iPad-assessment shouldn't exceed 5-10 minutes. The formalities and questionnaires should not take longer than 10 minutes in total.

If parents want to engage you in a longer conversation: Be appreciative of their interest and remain professional and polite at all times. But do keep our ambitious testing schedule in mind (to which you can refer if you need to excuse yourself to the parents).

2. Sample

Inclusion criteria for participation are: aged 6-11 + sufficient English skills for understanding the instructions.

We aim for a sample size of $n = 40$ children to be tested (20 tested with the iPad and 20 tested on paper/pencil. If we can get more, even better! The sample plan below aims for 48 participants overall.

Sample plan

There are two experimental conditions (iPad and paper-pencil). It is essential that both conditions are tested equally often. Likewise, it is essential that each experimenter performs both iPad and paper runs (to avoid a likely confound of experimenter and condition effects).

If possible, also try to balance the number of children tested by gender and by age, e.g. 10 children 6-8 years and 10 children 9-11 years in the iPad condition and 10 children 6-8 years and 10 children 9-11 years in the paper condition.

Ideal sample plan ($n = 40$ children)

iPad group		
Younger (6-8)	boys	6
	girls	6
Older (9-11)	boys	6
	girls	6
Total with iPad		24

Paper group		
Younger (6-8)	boys	6
	girls	6
Older (9-11)	boys	6
	girls	6
Total on paper		24

To secure this plan, the assistant (who greets the children) will assign children to conditions and will keep track of how many children are assigned to each condition. This involves two steps that are described in more detail below:

- 1. assign an activity to the child (iPad/ paper condition) and
- 2. enter the ID of this child in the corresponding cell in the Sample Plan.

It is very important that in the end, we end up with as many IDs in the iPad group as in the Paper group (and less important that each cell by age and gender contains the same amount of IDs).

3. Procedure step by step

3.1. Procedure: Overview

White cells show tasks of assistant 1 and 2
Green cells show tasks of assistant 1
Yellow cells show tasks of assistant 2
Blue cells show experimenter's tasks

Recruitment (inclusion criteria: aged 6-11 years? Understands English?)	
Welcome	
General instruction + consent form + assignment of testing condition	
children	adults
Questionnaire I <i>initial liking</i>	Parent Questionnaire <i>demographics</i> <i>kidscreen-52</i>
iPad/paper activity	
Questionnaire II <i>evaluation of the app</i> <i>experimenter liking/rapport</i> <i>health & life satisfaction</i> <i>closeness</i>	
Give out reward	
Thank you and good bye	
Experimenter and assistant fill out their documentation sheets	

3.2. To prepare and pack *before* the testing day

GENERAL TO DO'S:

- Reserve furniture & gather other required material
- Order & pack beverages and snacks for participants
- Pack individual packages with pre-entered IDs on all materials for each child. Put the packages in ascending order
- Charge iPads and power sockets

See below for details.

Prepare and pack the following materials for testing		
1.	Material for participants with pre-entered IDs	<p>50 individual packages, one for each child (40 packages plus 10 extra copies for backup...we don't want to send any children away) including the following:</p> <ul style="list-style-type: none"> – Information and consent form for the <u>child</u> – Information and consent form for the <u>parent</u> – Questionnaire I – Questionnaire II – Parent Questionnaire – Assistant's documentation sheet – ID-flashcard <p>All packages already have IDs (1-50).</p>
2.	Material for experimenters	<p><u>Material needed for both conditions:</u></p> <ul style="list-style-type: none"> – manual for testing: (1 copy for each experimenter + 1 for each assistant + 1 backup copy) – experimenter's documentation sheet (1 copy for each experimenter + 1 backup copy) – T-Shirt (one for each experimenter) – pens/pencils (2 for each experimenter) <p><u>Additional material for iPad activity</u></p> <ul style="list-style-type: none"> – iPad – Figurines: (3 figurines for each iPad; if only one iPad will be used, bring at least one extra figurine for backup)

		<ul style="list-style-type: none"> – Power sockets + cables <p><u>Additional material for paper activity:</u></p> <ul style="list-style-type: none"> – 40 sheets of white paper <p>(we need up to 24 white sheet of A4 paper – one for each child. Bring some extra sheets for backup.)</p>
3.	Material for assistants	<ul style="list-style-type: none"> – manual for testing: (1 copy for each experimenter + 1 for each assistant + 1 backup copy) – Sample Plan: (1 copy only. If there are multiple assistants, they will refer to the same list. Bring 1 extra copy for backup) – E-Mail list for final report: (1 copy only. If there are multiple assistants, they will refer to the same list. Bring 1 extra copy for backup) – T-Shirt (one for each assistant) – pens/pencils (2 for each assistant)
4.	Reward for children	Bring at least 50 rewards so even the last child can have a pick
5.	Other	<ul style="list-style-type: none"> - 4 chairs - 2 tables - 1 box for filled-out questionnaires - 1 folder to store consent sheets
6.	Snacks and beverages	

3.3. To do on site before the first test run

	To do	comments
1.	Put on the “People in my Life”-T-shirt	<i>Wearing this “uniform” supports professional appearance and may also reduce experimenter effects that are especially pronounced in children.</i>
2.	Arrange table and two chairs for testing	<i>Child and experimenter should sit next to each other.</i>
3.	Turn your mobile phone off /on mute	
4.	Turn on iPad	
5.	Lay out materials for use during test runs for easy access	<i>For experimenters: manual for testing, documentation form, pens, For assistants: pre-packed packages for participants, sample plan, pens</i>
6.	Set up a box/folder to store filled-in questionnaires	
7.	Set up a separate box/ folder to store the filled-in consent forms	

3.4. Course of the assessment

Important facts:

⇒ Please keep in mind during the whole assessment: **Experimenter effects** are especially pronounced in children. Therefore, if at all possible, try to treat all children as equally as possible.

⇒ Three different persons are involved: assistant 1 will do all the questionnaires with the child, assistant 2 will do the questionnaire with parents. The experimenter will be responsible for the iPad-/paper-testing.

⇒ Questionnaires for children: All questions and answer formats need to be read aloud to the child (irrespective of their reading skills). Parents will fill out their questionnaire on their own.

⇒ iPad: Only the first questions and some prompts are standardized. Try to keep to the exact wording of the questions and instructions that are printed in bold type.

Recruitment (by assistant 1 and 2):

What you say	What you do
<p><i>Hello. My name is _____ and this is my colleague _____. We are working for a research project at Sussex University called “People in My Life”. We are developing an activity intended to help people who work with children.</i></p> <p><i>Today, we are looking for primary school aged children (6-11 years) to help us test the activity and answer a few questions. Our testing site is right here at the beach. It will take about 20 minutes in total for you and your child. Each child gets a little toy reward. Do you think your child would like to participate?</i></p> <p><i>If yes:</i></p> <p><i>Great! Would you be willing to accompany your child to the testing site (the tent)? We’d be grateful if you could also answer a short questionnaire about your child.</i></p>	<p>The first approach should be directed at adults that are in company of the children.</p> <p>Probably, adults will ask more questions concerning the project that should all be answered to your best knowledge (see FAQs!).</p>
	<p>Only if adults show a positive first reaction you should address children.</p> <p><u>Note:</u> When the child is not in company of his/her parent or legal guardian but another adult (e.g. adult friend or neighbour), participation in the study is still possible. We will then seek consent in loco parentis.</p>
<p><i>(directed at the child): Hello. My name is _____. What is your name? How old are you?</i></p>	<p>If children don’t fit our age range (6-11 years) after all, apologize for the inconvenience and wish them a nice day at the beach. Otherwise continue.</p>
<p><i>Would you like to help us test a new activity and answer a few questions? This will take about 20 minutes. You’ll get a small toy reward for helping us out.</i></p>	<p>If both child and adult agree to participate, take them to the testing site.</p>

Welcome (by assistant 1 and 2):

- consent and information form
- assignment of testing condition
- parent’s questionnaire

What you say	What you do
<p><i>Welcome, and thank you again for helping us with our project today. Before we get started, I would like to give you and your mum/dad some general information about our project and what we will do today. Please read this information sheet. It explains what we are doing and also confirms that everything we are talking about today will be treated strictly confidentially.</i></p> <p><i>If you have any questions or need further explanations feel free to ask.</i></p> <p><i>If you have read and understood everything, please sign here.</i></p>	<p>Obtain informed consent</p> <ul style="list-style-type: none"> • Take a new package from the top of the stack. The package assigns the ID to the child. • Take out the consent and information sheets for parents and children from the participant’s folder. • Make sure that children understand the consent sheet. Offer to read out loud and explain the consent sheet to children. • Put the signed consent sheet in the box/folder provided. The information sheet is for the participants to keep.
	<p>Assign the child to one of two activities</p> <p>1) Ask for the child’s age and check the sample plan. Assign the child to the activity (iPad or paper) with the least IDs so far (i.e., to a cell that still needs boys/girls of that age).</p> <p>2) Enter the child’s ID in the corresponding cell in the sample plan.</p> <p>3) Circle the assigned activity on the child’s flashcard and give it to the child.</p> <p>Participants may <u>not</u> chose their preferred condition! They can only participate <u>once</u>.</p>
<p><i>(assistant 2 addressing the adult):</i></p> <p><i>The activity is developed for two people only. Therefore, we would like to ask you, Mr. /Mrs. _____, to go have a seat over there and fill out this questionnaire as you are waiting for your child.</i></p> <p><i>Would you like anything to drink?</i></p>	<p>Parent’s questionnaire</p> <p>Hand out parents’ questionnaire, check on parents occasionally and demonstrate general availability to be addressed.</p>

Questionnaire I (by assistant 1):

What you say	What you do
<p><i>This is _____ who will show you the activity in a little bit.</i></p> <p><i>To start with, I would like to ask you a few questions.</i></p>	<p>Shortly introduce the child to iPad experimenter (they should have said hi to each other so the child knows who Questionnaire I is about).</p> <p>Take Questionnaire I and read out the instructions, questions, and response options to him/ her word by word. Check the answers chosen by the child.</p>
	<p>Bring the child to the experimenter.</p> <p>Make sure he/she carries his/her ID-flashcard.</p>

iPad-activity (by experimenter): Overview

The following questions are suggestions about how the iPad activity could unfold. The general steps (3 figures) as well as prompts (highlighted in bold type) should be maintained if possible. Most importantly, however, questions and the use of the iPad should support the natural flow of the conversation.

Material: iPad, 3 figurines

Overview of the **iPad procedure**:

1. iPad should be on (turn it on).
2. Start the app
3. Enter ID from the child's ID-flashcard (check for accuracy!!!)
4. Press record (audio recording should be co-activated automatically)
5. Perform iPad activity
6. After the app activity, press stop and confirm that you want to abort (the data will be saved automatically).
7. Leave the iPad on for the next participant.
8. Write down a cue for the identity of figures 2 + 3 during the activity on the child's flashcard. Try to write down roles and (if necessary) initials for the names (e.g., mum, uncle D.) Do not write down full names for data protection!
9. Take the child back to the assistant.

IPAD-activity: Procedure and prompts

Introduction

Hello again! Thank you again for helping us with our project today. I would like to do an iPad activity with you to find out more about your life and the people in your life.

Can you tell me a bit about who is important to you? (...)

How about we use the iPad and these figures and you can show me who you are and who you spend time with and talk to? (...)

Step 1: About you (the child)

- **Let's say one of these figures is you.** Which one would you like to be? (...) Ok, so this is you...
- **Why don't you put yourself somewhere on the iPad? (...)** OK! So let's tell the app that this figure is you... (*enter "you"*)
- **What colour do you feel like being today? (...)** OK, then let's press the area around the figure when this colour shows up. (*pick colour*)
- **What does that colour feel like? (...)**

Step 2: About person 2 (pick figure 2)

- **Who else is important in your life? (...)** And which figure could be ____? Ok.
- **Why don't you put ____ somewhere on the iPad? (...)** So this is _____. (*enter name/role*).
- **What colour does ____ feel like being today?** OK, then let's press the area around the figure when this colour shows up. (*pick colour*)
- **What does ____ (colour) feel like?**
- **So if you are here and ____ is here, what happens next?**

If the child is uncertain what to do, you can propose:

- So if this is you and this is _____, what happens if you meet?
- So if this is you and this is _____, what happens if you have good news?
- Who do you go to if you have a secret to tell?
- Who do you turn to if you are sad and looking for comfort?

(Continued on next page)

IPAD-activity: Procedure and prompts *(continued from last page)*

Step 3: About person 3 (pick figure 3)

- **Is there someone else who is important in your life?** (...) OK, then let's say this is ____ (*point to last figurine*).
- **Where on the iPad do you want to put ____?** (...) So this is _____. (*enter name/role*).
- **What colour does ____ feel like being today?** OK, then let's press the area around the figure when this colour shows up. (*pick colour*)
- **What does ____ (colour) feel like?**
- **What happens next?**

If the child is uncertain what to do, you can propose:

- What happens if you meet?
- What happens if you have good news?
- Who do you go to if you have a secret to tell?
- Who do you turn to if you are sad and looking for comfort?

Thank you and good bye

Thank you for telling me a little bit about you! I am sure there's more people in your life that are important. Today, I wanted to talk to you about some of them and try out this activity with you. This is why we'll stop here. But I've really enjoyed listening to your stories!

_____ (name of questionnaire-experimenter) would now like to ask you some more questions. Is that okay for you? (...) Let's go to see him/her then.

PAPER activity (by experimenter): Overview

The following questions are suggestions about how the paper activity could unfold. The general steps (3 persons) as well as prompts (highlighted in bold type) should be maintained if possible. Most importantly, however, questions and the use of the app / paper activity should support the natural flow of the conversation.

Material: 1 sheet of white paper (A4), two pens (one for the child and one for you)

Overview of the **paper procedure**:

1. iPad should be on (turn it on).
2. Enter ID from the child's ID-flashcard (check for accuracy!!!)
3. Press record (in the paper condition the iPad will serve as a audio recorder only.)
4. Take a fresh sheet of paper
5. Write the ID on the backside of the paper
6. Perform paper activity
7. After the paper activity, stop the audio recording. The data will be saved automatically.
8. Leave the iPad on for the next participant.
9. Write down a cue for the identity of persons 2 + 3 during the activity on the child's flashcard. Try to write down roles and (if necessary) initials for the names (e.g., mum, uncle D.) Do not write down full names for data protection!
10. Take the child back to the assistant.
11. Store the paper sheet securely at some convenient location (i.e., close to you for now. At the end of the testing day, all of these sheets will be sorted into the respective participants' packages).

PAPER activity: Procedure and prompts

Introduction

Hello again! Thank you again for helping us with our project today. I would like to do an activity with you to find out more about your life and the people in your life.

Can you tell me a bit about who is important to you? (...)

How about we put some of the people that are important to you down on this sheet of paper and then you can show me who you are and who you spend time with and talk to? (...)

Step 1: About you (the child)

- **Can you start by drawing a circle that is you? Just draw this circle somewhere on this paper.**

Step 2: about Person 2

- **Who else is important in your life? (...)** Ok.
- **Why don't you draw another circle for ... somewhere on the paper? (...)** So this is _____. *(enter name/role).*
- **So if you are here and _____ is here, what happens next?**

If the child is uncertain what to do, you can propose:

- So if this is you and this is _____, what happens if you meet?
- So if this is you and this is _____, what happens if you have good news?
- Who do you go to if you have a secret to tell?
- Who do you turn to if you are sad and looking for comfort?

Step 3: about Person 3

- **Who else is important in your life? (...)** Ok.
- **Why don't you draw another circle for ... somewhere on the paper? (...)** So this is _____. *(enter name/role).*
- **So if you are here and _____ is here, what happens next?**

If the child is uncertain what to do, you can propose:

- So if this is you and this is _____, what happens if you meet?
- So if this is you and this is _____, what happens if you have good news?
- Who do you go to if you have a secret to tell?
- Who do you turn to if you are sad and looking for comfort?

Thank you and good bye

Thank you for telling me a little bit about you! I am sure there's more people in your life that are important. Today, I wanted to talk to you about some of them and try out this activity with you. This is why we'll stop here. But I've really enjoyed listening to your stories!

_____ (name of questionnaire-experimenter) would now like to ask you some more questions. Is that okay for you? (...) Let's go to see him/her then.

Questionnaire II (by assistant 1):

Take Questionnaire II and read out the instructions, questions, and response options to him/her word by word. Check the answers chosen by the child.

As you get to the circles in the end, fill in the blanks for persons 1 & 2: Copy the initials/ roles from the child's ID flashcard (e.g., mum, uncle D.) and ask the child which name the initials refer to. Do NOT enter the full names of the persons on the questionnaire!

Give out reward (by assistant 1):

- *Thank you___ very much for helping us today! You did a great job!*
- *Let's go back to your mum/dad.*

Also thank parents for their participation.

3.5. To do after the assessment

Assistants 1 and 2:

What?	Consider!
Complete documentation sheet	<p>Indicate participants' proficiency in English (child and parent) and note down anything out of the ordinary concerning child and parent, e.g.</p> <ul style="list-style-type: none"> • Problems during the assessment (interruptions of the session, technical problems) • Comments by the child/parent not captured by our questionnaires • the child's behaviour (e.g., not motivated, distracted...) • any other comment you feel could be relevant <p>Indicate if parents were present during the Ipad/paper activity or not.</p>
Final check of all questionnaires	<ul style="list-style-type: none"> • Are all questionnaires completed? • Is the same ID written on every questionnaire? • Put all materials back in the participant's package: Questionnaire I+II, parent Questionnaire, assistant's documentation sheet (do <u>not</u> put consent forms in here!) • Put the entire package in the box provided

After the testing day: Experimenters:

Retrieve the paper sheets from the paper activity from the experimenter. Sort them in the correct packages accfor the children who performed the paper activity.

What?	Consider!
iPad	<p><i>How is this working? What needs to be paid attention to?</i></p> <ul style="list-style-type: none"> • Make sure the data has been saved (e.g., go to files and check if there is a file with the ID you just tested) • Check if iPad is low on power (if yes, connect to power socket) • Return to main menu on tablet
Complete documentation sheet	<p>Find the ID that you just tested on your documentation sheet. Note down anything out of the ordinary, such as...</p> <ul style="list-style-type: none"> • Problems during the assessment (interruptions of the session, technical problems) • the child's behaviour (e.g. not motivated, distracted, ...) • any other comment you feel could be relevant

4. Manuals

4.1. How to use the tablet for the assessment

Technical aspects that need to be paid attention to

1. *Make sure BEFORE the assessment*
2. *During the assessment:*
3. *After the assessment:*

4.2. FAQs

Questions you might have during the study:

What should I do if the child doesn't want the parent to leave for the assessment?

If the child doesn't want the parent to leave try to comfort the child by telling that the parent won't be far and that it won't be long. Nevertheless, if it is impossible to comfort the child the assessment can be done in presence of the adult.

In any case it is very important to write these incidents into the documentation sheet of the assistant. Even if the assessment will not be done with this child we need to keep record about drop-outs!

What should I do if children want to read the questions by themselves?

Tell them how great it is that they already know how to read. Tell them that it is very important for our project that we do the exact same procedure with every child. Some younger children don't know how to read yet, so we need to read the questions out loud for everybody.

What should I do if the child wants to quit?

If the child wants to quit participating: Tell him/her that this is no problem. If the situation allows, and without being pushy, try to ask why (this is important feedback for us). If the child has made any effort at all before leaving (i.e., if he/she not just sat down and got up again right away), the reward should be given. Please document if a child has quit in the documentation sheet. If available, also note down the reason the child gave for quitting. If the child wants to take a short break to drink something and then continue, that's fine.

What should I do if a parent wants his/her child to quit?

Tell him/her that this is no problem. If the situation allows, and without being pushy, try to ask why (this is important feedback for us). The child should get a reward nevertheless!

What should I do if a parent wants to leave while the child is being tested?

The parent cannot leave during the assessment because we cannot take full responsibility for the children at the beach. Kindly ask parents to stay at the camp.

Can the child check/ write down his/her answers on his/her own?

No, this should be done by the assistant, not the child. Tell the child that some younger children don't know how to read yet and that it is very important that we do the exact same procedure with all children.

Do I still have to read out all questions to the child even if it knows how to read?

In order to maximize standardization it is very important to read out loud ALL questions to ALL children.

What information do I have to write in the documentation sheet?

Incidents during recruitment and testing, e.g. interruptions of the activity; technical problems, things you find relevant regarding the child's or the guardian's behaviour. Generally any observation you've made that could help us make sense of the data.

What do I do if the iPad crashed after starting the activity and we need to start over?

Restart the app, enter the child's ID with appendix _2 so that the first trial is not overwritten. For example, if the child's ID is 11, enter ID 11_2 for the second trial.

Technical aspects, e.g. what should I do when the tablet crashed? Or: What should I do when the tablet is running out of battery? etc.

How to respond to participants' questions:

Why are you doing this study?/ What is the aim of the study?

The aim of the study is to test the general feasibility of a new iPad-app that we are developing as a tool for people who work with children.

Why do some children do an activity on paper, without the iPad?

We want to compare these two activities and find out which one works better to create a new relationship.

Who pays for this research?

The Jacobs Foundation who is dedicated to improving the lives of children and young people.

Who is responsible for this study?

An international team associated with the University of Sussex, namely Johannes Schoening, Melissa Nolas and Antje Rauers.

What will happen to my data?

It will be stored on password protected servers at the university to which only our research team will have access. We will use the data to think about the app and our project in order to draw some conclusions about this new approach that we are trying to develop.

Will you let us know about the results of the study?

A copy of the final report will be available online in due course. If you would like a copy please leave us your email address. (Assistants have a separate email list where the addresses should be noted.)

Who will have access to my and my child's data?

All information assessed today will be treated absolutely confidential. The information you give us today will never be linked to you or your child's name. Only researchers working in the "People in my Life"-project will have access to the data. For scientific publications, the data of all participants will be aggregated, for example to calculate mean scores. Therefore, no conclusion can be drawn for any single participant.

Can you identify what my child did in the assessment later on?

No. Each child gets a random ID number. This number and all the information you give us today will never be linked to your name or your child's name.

What do you do in order to protect our data?

All data will be stored on secure, password protected University of Sussex servers. Any hard copies (e.g. transcripts) will be under lock and key. We are obliged to keep the consent forms with your signatures under lock and key, and stored separately from all questionnaires and additional data.

Why will the assessment be recorded?

The assessment will be recorded in order to help us improve the app further and to gain a better understanding of how children talk about the people in their lives.

My child would rather do the iPad activity/paper activity. Can he/she swap?

No, unfortunately not. It is important in order for all things to be equal as much as that is possible that the activity is assigned randomly.

Can my child try the other testing condition, too?

No, unfortunately this is not possible. The aim of the project is to compare how children experience the iPad activity and the paper activity. Knowing one activity may alter how one experiences the other activity. Therefore, each child can only do one activity today.

To be continued ...

Sample Plan for assistants

Please assign children to **either iPad**  **or paper**  activity **by entering their IDs** in the corresponding cell.

In the end, the **iPad** box needs to have as many IDs as the **Paper** box.
(Ideally, the individual cells within the two boxes are populated equally.)

iPad 		Please enter IDs here	Goal
Younger (6-8)	boys		$n = 6$
	girls		$n = 6$
Older (9-11)	boys		$n = 6$
	girls		$n = 6$
			Total = 24

Paper 		Please enter IDs here	Goal
Younger (6-8)	boys		$n = 6$
	girls		$n = 6$
Older (9-11)	boys		$n = 6$
	girls		$n = 6$
			Total = 24

ID: 01



role / initials person 1

role / initials person 2

CHILD INFORMATION SHEET

Who are you?

"We are researchers from the University of Sussex."

Why would you like me to take part in your study?

"We would like you to try out an activity we've designed for children to find out about the important people in their lives."

Why am I being asked?

"Because you are a child aged 6-11."

What will I have to do?

"We will ask you some questions about the important people in your life and how you feel about them and what you do with them. We will ask you to place toy figures on a screen or place pebbles on a sheet of paper to show us these people and your connection to them. Don't worry, we will help you throughout! At the end we will ask you what you thought of the activity and a few general questions about yourself."

How long does it take?

"Most children take about 20 minutes to complete the whole activity. You can take more time if you need to. There's no rush."

Do I have to talk to you?

"No. You do not have to talk to us if you don't want to. If you start the activity, you can also quit any time you want. This will be no problem at all. You can also tell us until the end of this year (2016) that you want everything you have said and done here deleted from the study record."

Will others be able to tell it was me who said something?

"No. The tablet computer will record what people say as the activity takes place. These recordings will be safely locked away and kept a secret. The only time we would need to tell others what you have said is if you tell us or show us that you are in danger. Then we will need to speak to another adult so that they can make sure you are safe."

What will happen to what I tell you?

"The recordings will be stored safely on a computer at the University of Sussex. Only the researchers working on the PEOPLE IN MY LIFE Study will be able to see or hear what you tell us. We will use this information to find out about how children like you think about their lives and family and friends."

What do I get out of it and are there any risks?

"This study cannot make your life better but we hope that you will have fun. We like you to try out this activity so that it can be made even better and can later be used by adults that work with children to make children's lives better. This is a safe and fun computer activity and there are no risks. The research has been approved by the University of Sussex's Social Sciences & Arts Cross-School Research Ethics Committee (C-REC)."

Contact details

If you would like any further information, please contact the local lead for the study Dr. Sevasti-Melissa Nolas. Phone: +44 (0)1273 678569. Email: s.nolas@sussex.ac.uk. Find out more about Dr Nolas's work here: www.sussex.ac.uk/profiles/20805
The study is being funded by the Jacobs Foundation.



PARENT/GUARDIAN INFORMATION SHEET

Hello. We are researchers from the University of Sussex and we would like to tell you about the People in My Life Project we are conducting. The project was funded to develop a simple application that may help children and social workers form supportive relationships. The activity is a tablet application that was designed to help children aged 6-11 talk about important relationships in their lives.

What will my child be asked to do?

- Your child will be asked to do one of the following: either to use figurines on a tablet screen to play out the important relationships in their life or to use pen and paper to make line drawings of the important relationships in their life. In both situations, your child will be asked to talk a bit about the people and relationships in their life, how they make them feel and what they do together. Your child will be assigned at random to either situation.
- Your child will also be asked to answer a short questionnaire about their experience of the activity and about themselves and their relationships.

What will I be asked to do?

- You will be asked to complete a short questionnaire about your child.

How long will this take?

- Participation takes about 20 minutes.

Can my child leave the study at any time?

- Yes. You and/or your child can change your minds any time and withdraw your participation. You or your child can also contact us until the end of 2016 to tell us to delete the data you've provided.

What will happen to the information my child gives you?

- Conversations during the activity will be audio recorded and later analysed by the study team to learn about children's thoughts and feelings during the activity. These recordings will be stored safely on servers at the University of Sussex which are password protected. Only the researchers working on the People in My Life Study will be able to access them. Anonymous examples from the recordings may be used in journal articles, books, or presentations. After the activity, we will ask your son/daughter to anonymously answer a few short questions about his/her relationships and everyday life. The answers to these questions will be processed statistically (e.g., by calculating an average for all participants).



Who will have access to my child's information and will others be able to tell it is my child?

- Your child's participation in the study is anonymous. This means that your child's name will never be connected to his/her answers or recordings. Only the research team will have access to this information. What your child tells us during the study is confidential.
- The only time we would need to break this confidentiality is if your child tells us that they are in danger. We would then need to approach an adult (yourself or someone else in authority) who would be able to help them, but we would try to do this with their permission.

What does my child get out of it and are there any risks?

- There are no risks involved in the activity. Your child will not benefit individually by taking part in the activity but we hope that your child will have fun trying out this activity and talking about the people and relationships in their life that matter to them.
- Your child's participation may help other children and their families who use social work to improve their lives by helping us to better understand whether new technologies can help the formation of new relationships in social work practice.

Who are the researchers?

- The People in My Life Project is based at the Centre for Innovation and Research in Childhood and Youth (CIRCY) at the University of Sussex. Our research team has a lot of experience in working with children in many different situations to find out about their lives, what makes their lives better and especially how children can be more involved in the decisions that affect them. To find out more about our work go to our website: www.sussex.ac.uk/esw/circy
- If you would like any further information, please contact the local lead for the study Dr Sevasti-Melissa Nolas: (phone: +44 (0)1273 678569; email: s.nolas@sussex.ac.uk). Find out more about Dr Nolas's work here: www.sussex.ac.uk/profiles/20805
- Dr. Nolas is collaborating with computer scientist Prof. Johannes Schöning from Belgium and developmental psychologist Dr. Antje Rauters from Germany in developing the People in my Life app.

Who funds us?

- The project is being funded by the Jacobs Foundation (www.jacobsfoundation.org/).



CHILD and PARENT consent form

“PEOPLE IN MY LIFE PROJECT” – APPROVAL REFERENCE:

We have had the study explained to us, and we have read and understood the Information Sheets which we may keep for our records, and we have asked questions which have been answered to our satisfaction.

1) We understand that agreeing to take part means that we are willing to...(please tick):

- ...allow the conversation during the activity to be recorded.
- ...allow information about important relationships to be saved either electronically or on paper.
- ...answer a short questionnaire before and after the activity.

2) We understand that our names will never be connected to anything that is recorded and that only researchers of this study can hear the recordings.

3) We understand that anything we tell the researcher is confidential unless it is revealed by either one of us that either one of us is in danger in which case the researcher will need to give our information to someone who might be able to help us.

4) We understand that our participation is voluntary and we can choose to leave the study at any time without being disadvantaged in any way.

5) We consent to the processing of our personal information for the purposes of this study. We understand that such information will be treated as strictly confidential and handled in accordance with the UK Data Protection Act 1998 and relevant EU legislation.

CHILD	PARENT
I have agreed to take part in the above University of Sussex study.	I have agreed for my child to take part in the above University of Sussex study.
Name	Name
Signature	Signature
Date	Date





Questionnaire for Parents

ID: 01

People in My Life Project
Dr. Sevasti-Melissa Nolas
University of Sussex

Dear parents,

Thank you very much for taking the time to support our project!

The information you provide in this questionnaire will be treated confidentially. It will never be linked to your child's name.

Please provide some general Information about your child:

1. What is your relationship to the child?	<input type="radio"/> mother <input type="radio"/> father <input type="radio"/> other, namely: _____
2. Gender	<input type="radio"/> boy <input type="radio"/> girl
3. How old did your child turn on his/her last birthday?	_____ years
4. Which month was his/her birthday?	_____
5. Is English your child's first language?	<input type="radio"/> English <input type="radio"/> other



Dear parents,

How is your child? How does she/he feel? This is what we would like to know from you.

Please answer the following questions to the best of your knowledge, ensuring that the answers you give reflect the perspective of your child. Please try to remember your child's experiences **over the last week** ...

About Your Child's Health					
1. In general, how would you say your child rates his / her health?	excellent <input type="radio"/>	very good <input type="radio"/>	good <input type="radio"/>	fair <input type="radio"/>	poor <input type="radio"/>
Thinking about the last week...					
2. Has your child felt fit and well?	not at all <input type="radio"/>	slightly <input type="radio"/>	moderately <input type="radio"/>	very <input type="radio"/>	extremely <input type="radio"/>
3. Has your child been physically active (e.g., running, climbing, biking)?	not at all <input type="radio"/>	slightly <input type="radio"/>	moderately <input type="radio"/>	very <input type="radio"/>	extremely <input type="radio"/>
4. Has your child been able to run well?	not at all <input type="radio"/>	slightly <input type="radio"/>	moderately <input type="radio"/>	very <input type="radio"/>	extremely <input type="radio"/>
5. Has your child felt full of energy?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>



About Your Child's Mood and Feelings

Thinking about the last week...

6. Has your child felt that life was enjoyable?	not at all <input type="radio"/>	slightly <input type="radio"/>	moderately <input type="radio"/>	very <input type="radio"/>	extremely <input type="radio"/>
7. Has your child felt pleased that that he/she is alive?	not at all <input type="radio"/>	slightly <input type="radio"/>	moderately <input type="radio"/>	very <input type="radio"/>	extremely <input type="radio"/>
8. Has your child felt satisfied with his/her life?	not at all <input type="radio"/>	slightly <input type="radio"/>	moderately <input type="radio"/>	very <input type="radio"/>	extremely <input type="radio"/>
9. Has your child been in a good mood?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
10. Has your child felt cheerful?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
11. Has your child had fun?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
12. Has your child felt that he/she does everything badly?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
13. Has your child felt sad?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
14. Has your child felt so bad that he/she didn't want to do anything?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
15. Has your child felt that everything in his/her life goes wrong?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
16. Has your child felt fed up?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
17. Has your child felt lonely?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
18. Has your child felt under pressure?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>



About Your Child's Friends

Thinking about the last week...

19. Has your child spent time with his/her friends?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
20. Has your child done things with other girls and boys?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
21. Has your child had fun with his/her friends?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
22. Has your child and his/her friends helped each other?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
23. Has your child been able to talk about everything with his/her friends?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
24. Has your child been able to rely on his/her friends?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>



About Your Child's Family and Home					
Thinking about the last week...					
25. Has your child felt understood by his/her parent(s)?	not at all <input type="radio"/>	slightly <input type="radio"/>	moderately <input type="radio"/>	very <input type="radio"/>	extremely <input type="radio"/>
26. Has your child felt loved by his/her parent(s)?	not at all <input type="radio"/>	slightly <input type="radio"/>	moderately <input type="radio"/>	very <input type="radio"/>	extremely <input type="radio"/>
27. Has your child been happy at home?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
28. Has your child felt that his/her parent(s) had enough time for him/her?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
29. Has your child felt that his/her parent(s) treated him/her fairly?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
30. Has your child been able to talk to his/her parent(s) when he/she wanted to?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>

About How Your Child Sees Himself/Herself					
Thinking about the last week...					
31. Has your child been happy with the way he/she is?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
32. Has your child been happy with his/her clothes?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
33. Has your child been worried about the way he/she looks?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
34. Has your child felt jealous of the way other girls and boys look?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
35. Has your child wanted to change something about his/her body?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>



About Your Child's Free Time					
Thinking about the last week...					
36. Has your child had enough time for his/herself?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
37. Has your child been able to do the things that he/she wants to do in his/her free time?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
38. Has your child had enough opportunity to be outside?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
39. Has your child had enough time to meet friends?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
40. Has your child been able to choose what to do in his/her free time?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>

About Your Child and Others					
Thinking about the last week...					
41. Has your child been afraid of other girls and boys?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
42. Have other girls and boys made fun of your child?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
43. Have other girls and boys bullied your child?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>



About Your Child and Money					
Thinking about the last week...					
44. Has your child had enough money to do the same things as his/her friends?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
45. Has your child had enough money for his/her expenses?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
46. Has your child had enough money to do things with his/her friends?	not at all <input type="radio"/>	slightly <input type="radio"/>	moderately <input type="radio"/>	very <input type="radio"/>	extremely <input type="radio"/>

For the following questions, please try to remember your child's experiences **over the last year...**

About Your Child's School and Learning					
Thinking about last year...					
47. Has your child been happy at school?	not at all <input type="radio"/>	slightly <input type="radio"/>	moderately <input type="radio"/>	very <input type="radio"/>	extremely <input type="radio"/>
48. Has your child got on well at school?	not at all <input type="radio"/>	slightly <input type="radio"/>	moderately <input type="radio"/>	very <input type="radio"/>	extremely <input type="radio"/>
49. Has your child been satisfied with his/her teachers?	not at all <input type="radio"/>	slightly <input type="radio"/>	moderately <input type="radio"/>	very <input type="radio"/>	extremely <input type="radio"/>
50. Has your child been able to pay attention?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
51. Has your child enjoyed going to school?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>
52. Has your child got along well with his/her teachers?	never <input type="radio"/>	seldom <input type="radio"/>	quite often <input type="radio"/>	very often <input type="radio"/>	always <input type="radio"/>

Thank you very much indeed for helping us with our project!





QUESTIONNAIRE I

ID: 01

People in My Life Project
Dr. Sevasti-Melissa Nolas
University of Sussex

As you know, all of your answers will be kept a secret. I am not allowed to tell ____ (*experimenter's name*) or anybody else what you said. I'll write down your answers on this sheet that does not have your name on it.

To start with, you're about to meet ____ (*insert experimenter's name; point to experimenter*). I'm really interested in what you think about her.

Is it OK if I ask you a few questions about that? Looking at her:

1. How kind do you think she is?				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
not at all	slightly	moderately	very	extremely
2. Would it be fun to spend some time with her?				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
not at all	slightly	moderately	very	extremely
3. Would you share your favourite sweet with her?				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
no, never	rather not	maybe	probably yes	definitely yes
4. Would you share a secret with her?				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
no, never	rather not	maybe	probably yes	definitely yes
5. Would you approach her if you needed help?				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
no, never	rather not	maybe	probably yes	definitely yes
6. Would you tell her about a problem you have?				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
no, never	rather not	maybe	probably yes	definitely yes





QUESTIONNAIRE II

ID: 01

People in My Life Project
Dr. Sevasti-Melissa Nolas
University of Sussex

How was the activity?

I am really interested in what you think of the activity you just did.

How much fun was that?	 Awful Not very good Good Really good Brilliant				
Would you like to do this again some time?	0 No	0 Probably not	0 Maybe	0 Probably	0 Yes

How easy was the activity for you?	0 Very difficult	0 Rather difficult	0 Moderate	0 Rather easy	0 Very easy
Could your friends learn how to do this very quickly?	0 No	0 Probably not	0 Maybe	0 Probably	0 Yes



1. What was the best thing about the activity you just took part in?

2. What didn't you like about the activity you just took part in?

3. What would you change about the activity you just took part in?



I'd also like to ask you again what you think about ____ (*insert experimenter's name*) now that you have met her.

Maybe you think about her just like you did before doing the activity with her. Or maybe some things have changed. I am really interested to find out what you think.

Again, what you think will be kept a secret.

1. How kind do you think she is?				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
not at all	slightly	moderately	very	extremely
2. Would it be fun to spend some time with her?				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
not at all	slightly	moderately	very	extremely
3. Would you share your favourite sweet with her?				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
no, never	rather not	maybe	probably yes	definitely yes
4. Would you share a secret with her?				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
no, never	rather not	maybe	probably yes	definitely yes
5. Would you approach her if you needed help?				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
no, never	rather not	maybe	probably yes	definitely yes
6. Would you tell her about a problem you have?				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
no, never	rather not	maybe	probably yes	definitely yes



About yourself

I would now like to ask you a few questions about yourself and about your life in general. Would that be OK?

Thinking about the last week...

1. Have your parent(s) treated you fairly?

not at all slightly moderately very extremely

2. Have you been able to pay attention?

not at all slightly moderately very extremely

3. Has your life been enjoyable?

not at all slightly moderately very extremely

4. Have you felt satisfied with your life?

not at all slightly moderately very extremely

If you now think about the last YEAR:

5. Have you got on well at school?

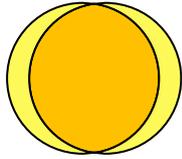
not at all slightly moderately very extremely



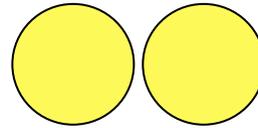
About people in your life

These circles describe how close people are.

Some people are very close to each other.



Others are less close.



In the activity you just did, you talked about two people in your life, _____ and _____.

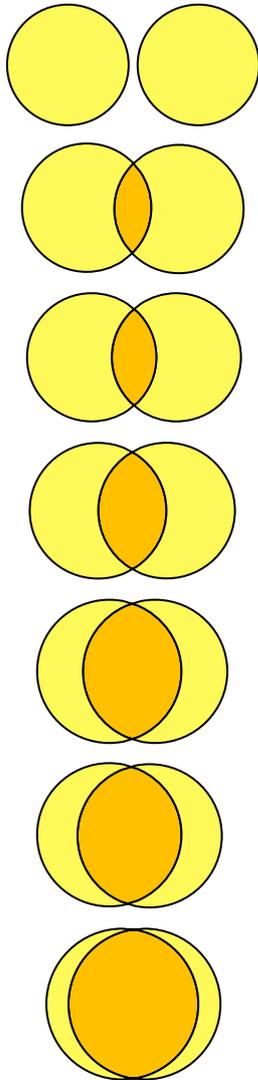
I would like to show you a few circles such as these ones and ask you which picture describes you and these people best. Let me show you (please turn page).



Person 1: _____

(insert role/name for the **first** character used in the app, e.g., "dad").

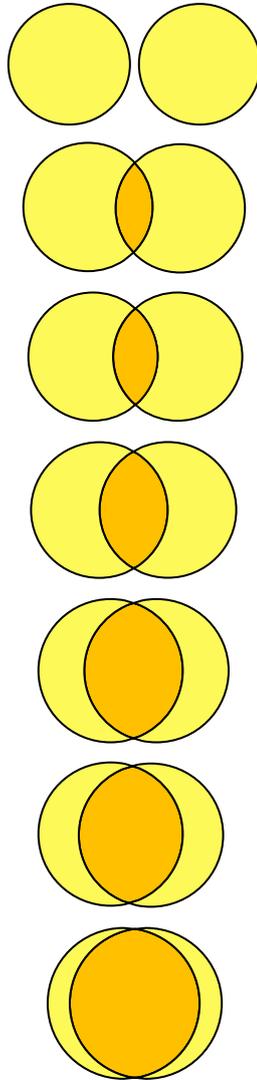
What do you think: Which of these pictures fits best to you and _____ ? (insert role/initials)



Person II: _____

(insert role/name for the **second** character used in the app, e.g., "dad").

Which of these pictures fits best to you and _____ ? (insert role/initials)



Documentation sheet for assistant

Please complete one documentation sheet per child.

Name of assistant: _____	ID: 01
--------------------------	---------------

Proficiency in English

Please indicate the child's proficiency in English:	<input type="radio"/> major difficulties	<input type="radio"/> minor difficulties	<input type="radio"/> fluent
---	---	---	---------------------------------

Please indicate the parent's/ guardian's proficiency in English:	<input type="radio"/> major difficulties	<input type="radio"/> minor difficulties	<input type="radio"/> fluent
--	---	---	---------------------------------

Notes and remarks concerning the child

Notes and remarks concerning the parent/guardian

Documentation sheet for experimenter

Name of experimenter: _____

Please complete right after testing each child.

Please document anything that could be relevant for understanding the data (e.g., distractions, fatigue, lack of motivation, language constraints, technical problems, etc.).

ID : _____	
Activity:	Did the parent join you at the table during the activity?
<input type="checkbox"/> iPad	<input type="checkbox"/> yes
<input type="checkbox"/> paper	<input type="checkbox"/> no
Remarks:	

ID : _____	
Activity:	Did the parent join you at the table during the activity?
<input type="checkbox"/> iPad	<input type="checkbox"/> yes
<input type="checkbox"/> paper	<input type="checkbox"/> no
Remarks:	

