Program Design as Authentic Assessment in Social Work Education: Reflecting on a Teaching Collaboration Between Social Work and Design Academics

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ABSTRACT

This article reflects upon the creation of authentic assessment in a core unit in a Bachelor of Social Work (Honours) program at an Australian University. This unit was the outcome of a collaboration between design and social work academics, and was delivered by teaching staff from these two faculties. Students were introduced to human-centred design as an approach to program design in social work. This article reflects upon the first iteration of this redeveloped unit, focusing analysing the authenticity of learning activities and assessment tasks. Authentic assessment incorporates real-world practices and contexts, cognitive challenges, reflexive practice, and promotes students' critical analysis of their own work (Ajjawi et al., 2019, pp. 3–4). I use Ajjawi et al.'s (2019) framework to analyse the redevelopment of this course in relation to authentic assessment, highlighting its strengths and limitations as an authentic learning experience. In addition, I use my reflection upon the collaboration between social work and design academics to make suggestions on how design can be incorporated into social work education.

Keywords: Authentic assessment; Social work education; Service design; Human-centred design; Reflective practice

INTRODUCTION

The shift towards authentic assessments reflecting real-world activities which professionals engage in is gaining considerable momentum. Authentic assessments are claimed to support students to develop the practices, knowledge, skills and behaviours which practitioners will be required to demonstrate in a work setting (Davison, 2011; James & Casidy, 2018). In this light, authentic assessment links students' assessment with tasks that would be completed as part of their professional practice (Boud & Falchikov, 2005; Davison, 2011; James & Casidy, 2018). The value of authentic assessment is framed in terms of its capacity to support the production of employable graduates who are able to meet employers' needs (Villaroel Villaroel, Bloxham, Bruna, & Herreda-Seda, 2018; Pack, 2016). However, beyond producing work-ready graduates, authentic assessment has the potential to engage students through assessment design which is perceived as being meaningful and relevant, providing students with an opportunity to engage in higher-order thinking, and to develop reflexive and critical capabilities (Ashford-Rowe, Herrington, & Brown, 2014; Davison, 2011; Villaroel, Boud, Bloxham, Bruna, & Bruna, 2019). Moreover, authentic assessment engages students in transformational learning, whereby students "become active players in managing their own learning, and necessarily, managing their own learning beyond the end of the course" (Boud & Falchikov, 2005, p. 35). Fundamentally, authentic assessment has the capacity to improve the quality and depth of student learning (Villaroel et al., 2019; Villaroel et al., 2018; Davison, 2011).

Authentic assessment is already prevalent in social work education, through the use of roleplay introducing students to social work practice with individuals, towards group work activities and field education through extended placement opportunities. However, there is also the potential to explore service design as a social work "skill" which students can practise through authentic assessment. I analyse the development of a core service design unit intended to develop students' knowledge, skills and capabilities in service design, through the use of authentic assessment. This unit was delivered intensively in three, fullday, face-to-face workshops on Saturdays, which were spaced evenly across the semester. Students completing this course were predominantly enrolled in their fourth and final years of a Bachelor of Social Work (Honours) degree. Students responded very positively to the redesigned unit, with course experience survey results showing a 115% improvement to the overall satisfaction index score from the previous year.

The course as a social work and design collaboration

A key aim of the course was to introduce students to new methodologies for program design. In particular, human-centred design was considered as a potential methodology which could complement students' learning of critical, structural and strength-based approaches to social work. As such, this course was a collaboration between two academic clusters at an Australian university (Social Work and Human Services with Design Communication), teaching students about human-centred design in a social work and human services context. Students were exposed to new ways of thinking, different approaches to teaching, different materials and ways of representing learning, as would occur in a cross-disciplinary collaboration.

The potential for human-centred design to be used alongside critical and strength-based approaches to social work relates primarily to how each of these ways of thinking and practising perceive people's knowledge and experiences as valuable can be used to share power between service users and practitioners, and can be used to work towards system change (Johnson, Laing, & Williams 2018). Using a human-centred design approach to program design portrays people as being "experts in their own lives" (Sanders & Stappers, 2008; Strokosch & Osborne, 2016, pp. 684–685). This emphasises people's agency, voice and value by designing programs and services with people who engage with these programs and services (Jones, 2016; Lazar, Feuston, Edasis, & Piper, 2018).

In addition, human-centred design enables students to explore the complexity of a social issue and how it affects service users, and to develop solutions which might address wicked problems (Hillgren, Seravalli, & Emilson, 2011; Johnson et al., 2018). Human-centred design encourages collaboration and empathy, recognising and supporting the humanity of people who might experience difficulty in their lives, while also developing the infrastructure which can support people in the longer term (Bjogvinsson, Ehn & Hillgren, 2012, p. 103; Mintrom & Luetjens, 2016, p. 392). Thus, the collaboration between design and social work academics allowed us to each work within a common understanding of how people should be related to and respected in the process of designing programs and services. However, a key outcome explored in this paper is the ways in which the collaboration allowed staff from each discipline to learn from each other.

Reflecting on assessment authenticity

I draw upon Ajjawi et al.'s (2019) framework for analysing authentic assessment, and relate this back to social work education and practice. In examining this re-developed course as a case study, I will then analyse the course structure and rationale, as well as assessments and activities completed by students. Next, I reflect upon my experiences in teaching this course, working with students and observing students' reactions to the content and activities. In doing so, I will highlight the successful aspects of the course and its limitations relative to assessment authenticity. Finally, I reflect on the cross-disciplinary learning which occurred between the social work and design academics in this course.

ASSESSING "AUTHENTICITY"

Ajjawi et al. (2019) highlight how authentic assessment should include four key elements (pp. 3–4). First, authentic assessment should reflect a real-world context, demanding students engage in tasks that they complete in their professional practice (Ajjawi et al., 2019, p. 3). Second, Ajjawi et al. (2019) state that authentic assessment should be cognitively challenging, requiring high-level problem-solving skills (pp. 3–4). Third, authentic assessment should encourage students to be reflexive in their practice (Ajjawi et al., 2019, p. 4). Fourth, authentic assessment should aim to develop students' capacities to critique and improve their own work (Ajjawi et al., 2019, p. 4). This framework highlights the multi-dimensionality of authenticity in academic assessment, reflecting the tasks, actions, thinking, reflecting and evaluation which professionals might be expected to engage in (Ajjawi et al., 2019). I will now expand upon the different aspects of authentic assessment highlighted here by Ajjawi et al. (2019), and relate these to social work pedagogy and practice.

Real-world learning experience

As Ajjawi et al. (2019) highlight, assessment authenticity can be developed through assessment tasks requiring students to show their knowledge and skill "in activities close to the profession", such as analysing case studies and application of problem-solving (p. 3). Through the development of activities and knowledge emulating what students' might engage in following graduation, authentic assessment can be perceived by students as being more meaningful and relevant to their career development than some traditional modes of assessment design (Boud, 2016; Davison, 2011; Egan, Waugh, Giles, & Bowles, 2017; Gulikers, Bastiaens, & Kirschner, 2006). Cumming and Maxwell (1999) highlighted how meaningful assessment is situated in a broader context and seen as having a purpose (pp. 177–178). In turn, meaningful assessment can promote greater student motivation, interest and engagement with the learning objectives (Boud, 2016; Cumming & Maxwell, 1999; Davison, 2011). As Boud (2016) highlights, this connection between practice and assessment is important in contextualising student learning, and the tasks that students are assessed on carry deeper meaning as a result (p. 163).

In a social work context, this could include the use of case studies, presentations and role play, for example (Bowers & Pack, 2017; James & Casidy, 2018; Pack, 2016). However, as I suggest, service and program design is a capability which is integral to social work and the process of working in a group to develop a complex and creative program prototype in response to a challenge, issue or opportunity, should also be considered as a "real-world" activity students can engage in. The question for this paper is whether the activities, knowledge and skills promoted through this course and its assessments reflect what social workers might do in practice.

Cognitive challenge

Ajjawi et al. (2019) argue that authentic assessment should be cognitively challenging. First, this means that assessment should require students to synthesise and apply different types of knowledge to make decisions and solve problems in a single setting (Ajjawi et al., 2019, pp. 3–4). In this sense, authentic assessment requires students to develop and implement higher-order academic and practice skills such as critical thinking, designing, evaluation and analysis, and concluding (Ajjawi et al., 2019; Ashford-Rowe et al., 2014; Bowers & Pack, 2017; James & Casidy, 2018; Villaroel et al., 2019; Villaroel et al., 2018). The synthesis and use of this knowledge can be used to respond to complex, real-world challenges, which further helps students to contextualise their learning and apply it in relation to a real-world setting. As Gulikers et al. (2006) highlight, this helps students to achieve a level of problem solving and analysis which might not be possible in traditional forms of assessment (p. 339).

Second, Ajjawi et al. (2019) state that authentic assessment should encourage students to connect their prior practical, experiential and theoretical knowledge with new ideas, to critically engage with this knowledge and also to analyse and draw conclusions from data. Authentic assessment allows students to connect theory with practice in a real-world context (Bowers & Pack, 2017; Egan et al., 2017; Gulikers et al., 2006; Pack, 2016). This integrates what happens in class with the demands of employment, thus preparing students for their professional lives beyond study (Ashford-Rowe et al., 2014, p.207; Boud & Falchikov, 2005, p. 35; Villaroel et al., 2018). In addition, students can better understand

how their knowledge can be applied in their practice (Boud, 2016; Bowers & Pack, 2017). This is particularly relevant to assessment around program design and service design in social work education where students synthesise theoretical, practical and experiential knowledge and practice skills to develop a program meeting a specific purpose.

Reflexive practice

According to Ajjawi et al. (2019), authentic assessment should encourage student reflexivity (p. 4). As Ajjawi et al. (2019) describe:

Reflexivity requires a student to position themselves in relation to their practices and developing sense of self. During authentic assessment tasks, students oscillate between the role of student and future practitioner as they straddle both the academy and the world of work. (p. 4)

Authentic assessment should then provide students with the opportunity to reflect on their learning, their practice in the course and how they perceive the future development of their professional selves and professional identities (Boud, 2016; Bowers & Pack, 2017; Lay & McGuire, 2010).

As Bowers and Pack (2017) state, critical reflection is used in social work education to "[raise] awareness of the effective 'use of self', supporting the emergence of a coherent professional identity; ultimately promoting the ability to analyse power which leads to knowledge building" (p. 101). Using critical reflection, alongside assessment exposing students to real-world challenges, enables students to reflect upon the practical realities which social workers confront and to also consider their own responses to these realities (Bowers & Pack, 2017; Ferguson, 2018). In this manner, critical reflection can help students to challenge assumptions and taken-for-granted values, deconstructing dominant power relations, ideas and values (Morley & Ablett, 2017). In addition, students can use reflection to identify how their own identity had shifted due to the different experiences of their lives, study and work (Zufferey, 2012).

Critical assessment of own work

Finally, Ajjawi et al. (2019) describe how authentic assessment should promote students' capabilities to assess their own work (p. 4). As Ajjawi et al. (2019) explain, authentic assessment should promote evaluative judgement, which "helps students to identify areas that need improvement, track their progress over time, and develop insights into acceptable standards of quality performance in their future profession" (p. 4). This component is important in helping students to shift from an environment where their work is assessed by teaching staff in relation to criteria and standards, to being able to critically assess their own work to ensure that they can meet professional standards (Ashford-Rowe et al., 2014).

CASE STUDY DESCRIPTION

Course rationale

Students in this course were predominantly undergraduate social work students in the final year of their four-year Bachelor of Social Work (Honours) program. Students were

encouraged to view themselves as social workers using human-centred design to develop a social work program or service. Drawing on Villaroel et al. (2018), Egan et al. (2017) and Boud (2016), group work was positioned as an important element of students' learning in this course, intended to help students to learn from others' experiences and knowledge, to work collaboratively, share ideas, negotiate complexity and difference. This collaboration with peers, and the perception of peers as colleagues as well as classmates, is an important aspect of making assessment authentic (Boud, 2016). Students performed all their group work in class through highly structured activities throughout each workshop. This allowed students to focus their energy on collaboration, rather than upon the logistical challenges of organising to meet outside class hours.

In addition to the presentations and workshop activities which featured across the three days of the course, the course also featured audio interviews with 10 social workers involved in program design, management and evaluation. These interviews provided students with examples of program design in social work practice, to understand different approaches to designing and evaluating programs, and to consider examples of how social workers relate to service users in program design.

DAY 1: EMPATHY/DEFINE

Students developed working groups around specific populations and issues they wanted to support and address in their program prototypes. Students identified the needs, strengths and capabilities of this population, and the structural barriers and obstacles which this population encountered. In doing so, students drew on their research in the area (including previous course work); their experiences and observations when working with this population (including through their student placements); their studies of political and societal factors which influence this population (particularly through sociology, policy and politics units completed throughout their program). Students synthesised these ideas, experiences, observations and research, to develop "personas" reflecting the population that was the focus of their program prototype.

Assessment 1: Population description: Drawing upon the work that they completed in the first class, their independent research, work and placement experiences, students identified the population, their needs, strengths and wants, as well as the structural factors affecting this population. Students were assessed on their capacity to meet these key assessment objectives, by drawing on different sources of research. Students developed their personas to accentuate these points, and consider how each of the key aspects affecting this population might have a bearing on this persona. Students were encouraged to refer to their in-class discussions, their experiences and their research when developing this assessment.

DAY 2: IDEATE/PROTOTYPE

First, the students refined their personas based on the feedback that they received for Assessment 1. Next, the students were guided through a range of structured activities to identify the program purpose, consider the perspectives of the service users, and frame their design challenge. The students then engaged in a rapid ideation exercise, developing a number of potential prototype ideas, then working collaboratively to identify what they perceived to

be the most creative, effective response to their design challenge. The students used a range of mediums, including models, diagrams, flow charts, role play and story boards to develop and communicate their program prototype. In the afternoon session, students identified an idea, then built this idea into a program prototype. This required students to produce an artefact reflecting what they had learnt, which Ajjawi et al. (2019), Boud (2016) and Ashford-Rowe et al. (2014) suggest is a key means of enhancing perceived authenticity of assessments.

Assessment 2: Program Prototype (Group assessment, completed in class): This assessment captures students' explanations of their program prototypes. Students recorded a 10-minute video in class using smartphones where they explained their prototype, the process they engaged in to develop this prototype, and the rationale for their decision making. The students were encouraged to imagine they were explaining their idea to a fellow social worker. As Boud (2016) describes, having the students' assessments for a specific audience gives students a sense of meaningful purpose with their work, while reflecting the challenge of communicating ideas with colleagues, managers or external organisations. The tutors assessing this work assumed the role of the social worker, identifying potential limitations and making suggestions for program revisions. Tutors assessed students' explanation of their program prototype, their explanation of the process that they had used to develop their prototype, the rationale underpinning their decision making and how they proposed to negotiate barriers confronting the prototype. In the feedback, the tutors/social workers posed one or two questions regarding the prototype and its design.

DAY 3: TEST/REVISE

Students reviewed the feedback on their program prototypes and the questions posed by the assessor. As a group, the students then sought to adjust their program prototypes according to the feedback they had received, and developed responses to the questions posed in the feedback. The final day also included an opportunity for students to reflect upon their work, and to consider how their program prototypes reflected their approach to social work.

Assessment 3: Response to Test (Group assessment, completed in class): In this assessment, students met with a member of the teaching staff to explain their response to the feedback, to answer the questions posed by the tutor and to describe how they had adjusted their program prototype based on their "test". This incorporated a 10-minute discussion which the tutors assessed in class. Students were assessed on their program improvements in response to the feedback and questions, and the creativity and innovation evident in the group's remodelling of their prototype.

Assessment 4: Reflection on practice: Finally, students reflected on the ways that their thinking about social work and service design was either challenged, changed or reinforced through their participation in this design process. Students critically reflected on their assumptions, highlighting key moments throughout the course which changed their thinking, causing them to view the issue, population or design process differently. Tutors assessed students' reflections on their course experience, their engagement in the course content, their reflections on their own assumptions and values as a social worker, and how they anticipated applying this learning in their professional practice.

REFLECTION ON CASE STUDY

Real-world learning experience

The course activities and assessments simulated a real-world activity whereby students were encouraged to view themselves as agents within this real world. First, students were asked to imagine themselves as social workers responding to a real-world challenge, drawing on the skills, knowledge and experiences that they had developed throughout their studies. By connecting the students' previous studies and experiences with program design, students' feedback for this course has suggested that students were able to view themselves as social workers in this context, doing social work. In turn, this contributes to the perception of activities and assessments as being meaningful and relevant to students' learning and professional development, which is an important outcome of authentic assessment (Boud, 2016; Cumming & Maxwell, 1999, pp. 177–178; Davison, 2011; Egan et al., 2017; Gulikers et al., 2006). The interviews with social workers describing programs that they had helped design, manage and evaluate reinforced to students the centrality of program design to social work.

The assessments were based upon work that social workers using human-centred design would produce. As Ajjawi et al. (2019) highlight, developing assessment which requires students to develop knowledge, skills and practices "close to the profession" is an integral aspect of authentic assessment (p. 3). This helped students to connect with the process of doing something with the knowledge and experience they had attained throughout their degree, producing an artefact serving a specific, real-world purpose (Boud, 2016; Boud & Falchikov, 2005). It could be argued that social workers do not always engage in human-centred design processes. However, as we found through our social work and design collaboration, the skillsets and knowledge which each discipline draw upon are similar in some cases, whereas the social workers interviewed as part of this course described using aspects of participatory approaches to design in their program development, such as co-design.

Pairing student groups with an actual organisations could enhance the authenticity of the task. The student group could be presented with a challenge by that organisation, and would present their response to this challenge and be assessed – in part – by a representative of that organisation. If this approach were to be adopted, it would need to be carefully considered, and would require close collaboration with a number of different organisations. This would also improve the use of personas in this course. When teaching students about personas, we described how personas are developed *with* a population (Cabrero, Winschiers-Theophilus, & Abdelnour-Nocera, 2016). In addition, we described how the population would provide feedback on the persona, and change the persona if they felt it was not accurate or promoted a narrow view of who they were. However, students in the course were not able to engage populations directly, instead drawing their data from peer-reviewed research, grey literature and their experiences on placement or working with this population. As such, students' personas were created abstractly. Engaging people with lived experience would enhance the authenticity of this aspect of the course, and would certainly enhance students' learning.

Cognitive challenge

Ajjawi et al. (2019) highlight how authentic assessment should require students to respond to a cognitive challenge, particularly through analysis and problem solving. Engaging in the human-centred design process, students connected their prior theoretical learning and experiences with new ideas, using a real-world practice performed in social work and human services organisations, in relation to an actual issue or challenge which exists in the real world (Ajjawi et al., 2019; Ashford-Rowe et al., 2014; Villaroel et al., 2018). This required students to think analytically in relation to different types of data, to determine what theoretical ideas they might draw from and which practical skills to use in this program.

Students used feedback from their assessments in developing their subsequent work. The Response to Feedback assessment required students to engage with their feedback to redevelop their program prototype. This reaffirms that feedback is a constructive mechanism, but also to see feedback as part of an exchange of ideas, and use the perspective of the assessor (in this case, the fellow social worker), to improve their work (Pack, 2016, p. 215). While this is designed to replicate what happens in the workplace, it is also an intellectual challenge which requires students to either support, reconsider (or better communicate) their ideas.

Reflective practice

The students used their Reflections on Practice assessments to critically examine how their ideas and assumptions were either changed or reinforced through their work in this course. Students were encouraged to identify particular moments, discussions and comments which resonated with them, and helped them to view the topic of their work, or their approach to working with people, in a different light. Students reflected on their experience of the course, and their developing professional identities, and how they wanted to practise as a social worker. This reflects Ajjawi et al.'s (2019) description of the student experience in authentic assessment activities, where students "straddle both the academy and the world of work" (p. 4). As Ajjawi et al. (2019) highlight, students used the Reflection on Practice to identify the type of social worker that they saw themselves as, what ideas they would base their practice around, and how their learnings from this course would contribute to their practice. In this sense, the reflection provided students with the capacity to consider the values and personal resources contributing to their professional identity (Shlomo, Levy, & Itzhaky, 2012).

Drawing upon Hackett, Kuronen, Matthies, and Kresal (2003), Moorhead, Boetto, and Bell (2014) state that "[a] professional social work identity is characterized by embodying one's professional sense of self (who am I); encompassing worldviews, knowledge, skill and a commitment that aligns with social work values, ethics and visions" (p. 176). While our framing of the reflection encouraged students to consider their values, resources and worldview in relation to their participation in the course, we did not specifically ask students to relate this back to social work values and ethics, for example. Some students did use the reflective piece to do this; however, many students did not. To provide a stronger, more directed reflection in relation to the students' professional identity and sense of self, adding this to the assessment description would improve its focus.

Critical assessment of own work

As Boud and Falchikov (2005) highlight, authentic assessment can enable students to manage their own learning. In particular, this can be achieved through assessment designed to develop students capacities to critically analyse their own work, rather than relying just upon the assessment of their work by teaching staff (Ajjawi et al., 2019). This course encouraged students to consider how they would change their program prototypes, though these changes were based on feedback provided by tutors. As such, a limitation of the authenticity of the course assessments, according to Ajjawi et al.'s (2019) framework, is the limited focus on students' critically analysing their own work. Potentially, rather than the academic staff identifying areas where the students could improve their program prototype, the students themselves could do this. This could involve the academic staff posing one question, and the students also critically assessing their work to identify one area for improvement. The Response to Test assessment might then incorporate this into the discussion.

WHAT DID WE LEARN FROM THE DESIGN/SOCIAL WORK COLLABORATION?

The social work students and I were introduced to ways of thinking and practising which encouraged innovation. The design academics introduced social work academics and students to the need to embrace uncertainty, to the importance of being able to change your mind, and to the value of opening up possibilities of new ideas. In relation to the latter point, this was very valuable in providing the freedom for students to do something completely different, and to not just reproduce existing, legitimised ways of responding to certain issues and challenges. This focused students on the population's needs, strengths, capabilities and context. Rather than replicating existing models of providing support, students were encouraged to think deeply and creatively about what would support their specific population and persona. In some cases, this led to some novel ideas. This freedom to do something different was exciting to observe, and has also enabled me to try new approaches to my own teaching, such as using different materials and forms of assessment which encourage lateral thinking.

An influence on social work staff and students was the approach taken to personas and also the design tools that we used. As students and staff who have focused on critical and strength-based approaches to social work, we identified how the personas firstly could be seen as promoting deficit-based thinking and stereotyping. This feedback contributed to the remodelling of some design tools used, contributing to activities and ways of thinking about personas which more directly connect students' populations with structural barriers, the resistance of these populations, and promote program design which is aimed at facilitating structural change. As such, through our collaboration we are continuing to work together to adapt human-centred design tools and practices in a way that can complement critical social work more closely.

Key findings and future directions

This article has reflected upon the re-development of a core unit of a Bachelor of Social Work (Honours) Program at an Australian University initiated to create a greater sense of authenticity in course design and assessment. The re-developed course is a collaboration between Social Work and Design academics, and sought to introduce students to human-

centred design as an approach to service design. Drawing upon Ajjawi et al.'s (2019) framework for analysing assessment authenticity, I have examined the authenticity of course design and assessments, and reflected upon my observations of designing and teaching in this course. Furthermore, I have reflected upon this course as a cross-disciplinary exchange.

Some aspects of the course reflect good examples of authentic assessment. The students synthesised different forms of knowledge developed through their previous studies in the program, their placement and work experiences and personal experiences, to develop a response to a specific issue, challenge or opportunity. In addition, students applied their theoretical knowledge to understanding and responding to a real-world issue that people experience. Interviews with practising social workers engaged in program design, management and evaluation further reiterated that these skills and knowledge are integral to social work practice. These aspects of the course situated the students' work within a real-world context and provided students with a formidable cognitive challenge, which Ajjawi et al. (2019) highlight as being essential in authentic assessment.

Greater involvement of social workers, organisations in the human services sector (and potentially service users) would help enhance the real-world nature of these assessments. This could involve organisations setting challenges for students to respond to, with social workers representing these organisations becoming involved in assessing students' work. In this evolving course, this is the next step to take in enhancing the authenticity of students' learning experiences. In addition, a more concrete connection between students' reflections and social work values and ethics would enhance the authenticity of this element of the course, as highlighted by Ajjawi et al. (2019). Finally, students could be required to identify areas of their own program prototype that could be modified or changed, to facilitate the evaluative judgement which Ajjawi et al. (2019) highlight as essential in authentic assessment.

As a cross-disciplinary exchange, this course highlights the value of incorporating different disciplines into social work education. Specifically, social work students and academics were introduced to ways of thinking and designing which promoted creative thinking and encouraged both students and staff to embrace uncertainty as a necessary part of the design process. In my experience, this was exciting and liberating. In addition, social work academics and students were able to work with design academics to modify design tools and activities to better facilitate critical and strength-based approaches to social work in human-centred design. This development can have considerable potential for how social workers and educators apply and teach human-centred design.

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