Can adaptable sewing tools improve development of sewing skills and foster a sense of inclusion?

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Background

- Specialist Technician - BA Fashion at Central Saint Martins for last 5 years.
- Adaptable Sewing tools kit introduced in Essential Sewing Skills workshop. A 4 day long introductory workshop with 1st year students.
- Teaching 1st Year students during busy Autumn Term. They have their first project, reset show which is a short project with a large outcome, high pressure

Rationale

- The disability unit of Inclusive practice caused me to reflect on how I was already practicing inclusive teaching, and how I could push this further to create a more accessible and inclusive environment.
- The rationale was born from the Summer of 2024 I participated in a knowledge exchange with a colleague who had experienced an accident which caused limb loss and a change in their abilities. They could sew before the accident, so I was working with them to teach them to sew again with their limb differences.
- I researched and created a pack of tools that were more accessible and appropriate. I realised there was an opportunity for this to be put into wider use and distribution.
- I furthered my research and understanding of adaptable tools by attending the Design and Disability exhibition at the V&A.
- Many of the inventors and designers' work on display had created the objects and assistive technology out of necessity, helping them, as disabled people, navigate day-to-day tasks and interactions.
- I saw how inventions and design for disability are often adopted by able bodied people and help wider society.
- This research and experience lead me to create a more comprehensive sewing toolkit.

Fork for Cindy suspended in a silicone cap
© Photo by Michael J. Maloney

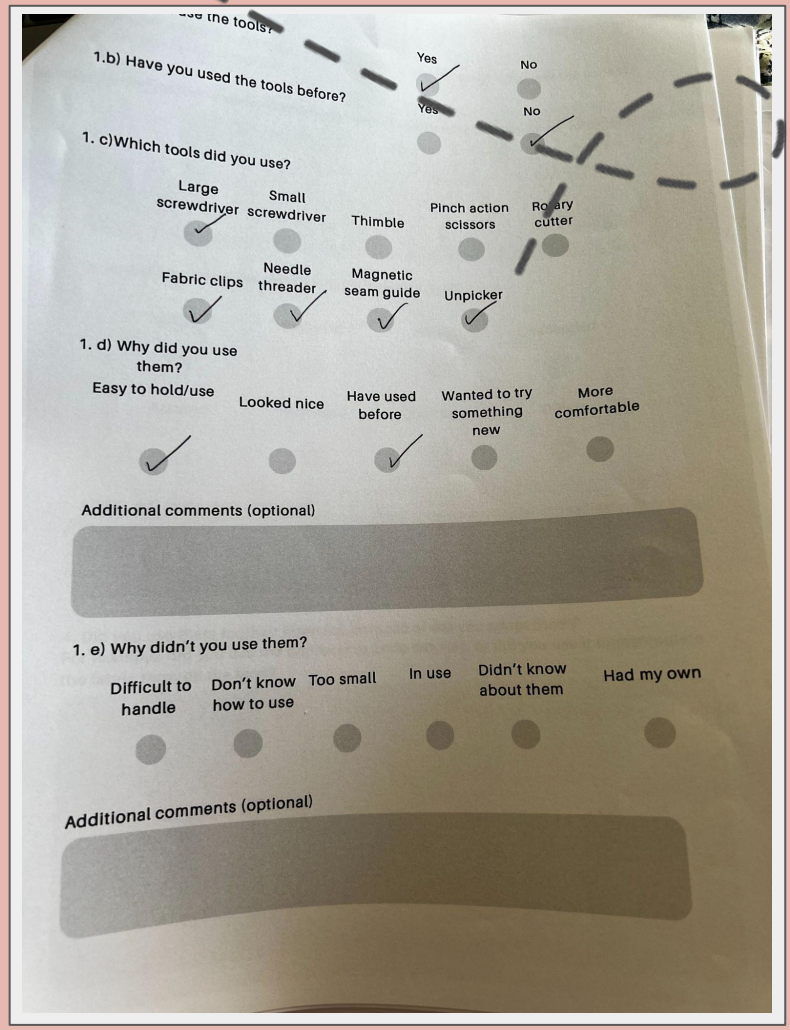
Adaptable Sewing Toolkit

- I secured funding for 5 toolkits
- The toolkit includes:
  - **Small and Large Screwdriver** (Higher Torque, Guide fabric)
  - **Thimble** (Protective, additional grip)
  - **Pinch Action Scissors** (Less strenuous on hands)
  - **Rotary Cutter** (Doesn't require pinching motion)
  - **Fabric Clips** (Less fiddly than pins)
  - **Needle Threader** (Helpful for vision and fine motor skill impairment)
  - **Magnetic Seam Guide** (Guides fabric)
  - **Unpicker** (Accurately unpicks seams)

Adaptable sewing tool kit
© Photo by Charlie Lewis

Methodology

- **I used a mixed methods approach, employing surveys, observation and interviews.**
- I chose a survey as it would provide me with **measurable, quantitative, qualitative and experiential data**. I used a mixture of checkbox and written questions to make it more accessible and increase student participation.
- I printed the surveys rather than completing online as they were easy to distribute and didn't require digital access.
- Surveys were given out on the final day and had time factored in for survey completion.
- The ARP project was set in a very busy first term, which is spent entirely with 1st Year, leading me to incorporate the research into existing workshops.
- This also meant I was **fostering inclusivity** and helping students develop their familiarity with the tools from the start.
- I used **Thematic Analysis** of data and **observational research and reflection**, looking at both student experience and comments, along with personal and colleague observations, acquired through interviews.

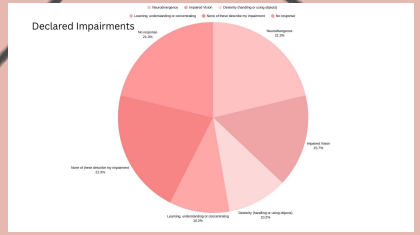


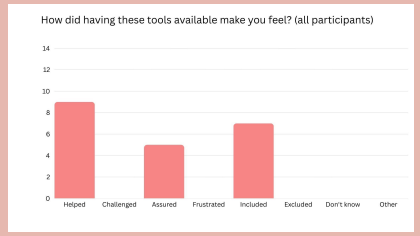
Project Findings: Disability

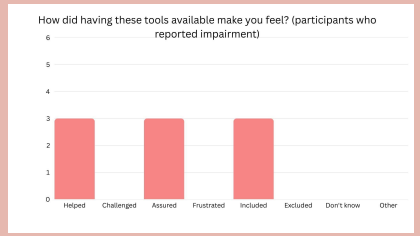
- I have divided my data into two themes, Disability and Gender. I had 15 participants total
- 40% of participants declared impairment
- 30% stated none of these describe my impairment
- 30% left this question blank.
- Of those who reported impairments, 50% reported feeling included, helped and assured by the tools. I was pleased that the tools had fulfilled their aims of creating a more accessible and inclusive workshop.
- I found some interesting themes around vision, from both observational research by colleagues and from the surveys, which was something that was unexpected and a disability I hadn't actually considered in my tools.
- 20% reported impaired vision
- "Poor vision meant I couldn't thread needle well so it (the needle threading tool) was very helpful"
- If I were to continue the research cycle I would look further into resources which help students who are visually impaired, building upon the toolkit.
- I found that some of my questioning skewed the responses around impairment and disability, as I hadn't included the option to select 'no impairment'.

"(Helped) manipulate fabric through feed"

"Poor vision meant I couldn't thread needle well so it (needle threading tool) was very helpful"

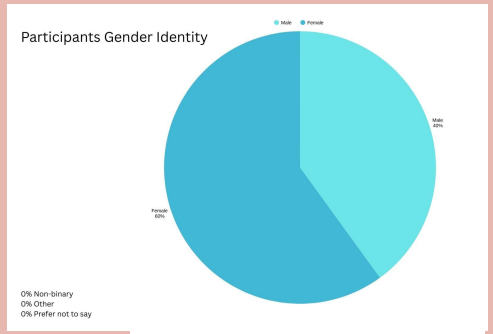


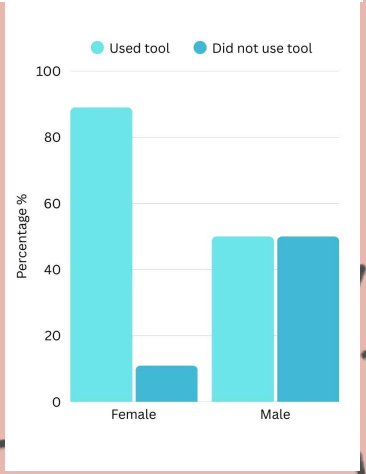




Project Findings: Gender

- I received survey responses from 6 male participants and 9 female participants
- Through observation I noticed that male presenting students were less likely to engage with the tools, seemingly through fear of looking like they need assistance or help.
- 89% female participants used tools compared to 50% of male participants.



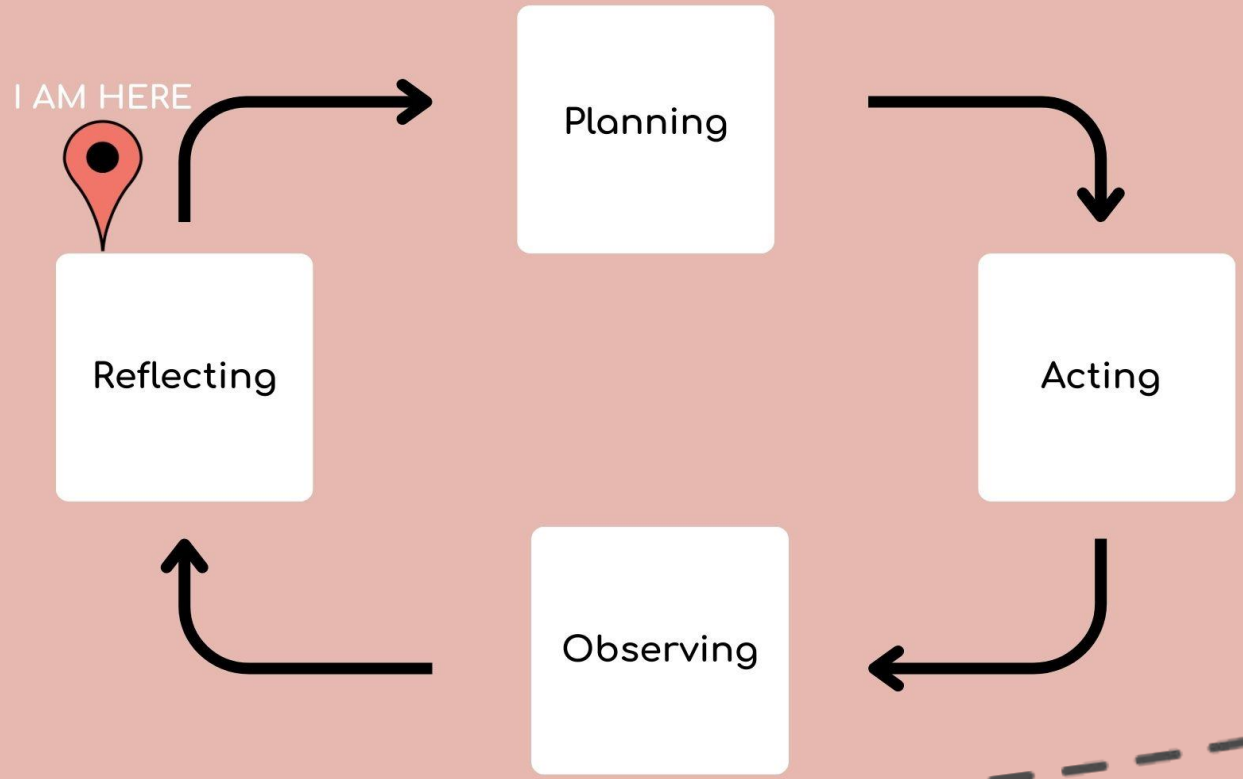


Reflections

- The toolkits did foster a sense of inclusion for the students and I received really positive student and staff feedback that they were helped by the tools, and that they would want more access to the tools. I was able to repeat part of the action research cycle, which helped me reflect upon student engagement and how to broaden my pool of research.
- My expectations of the project and who would find the tools useful changed.
- I had not looked deeply at vision aiding tools, however this was one of the main impairments I received a lot of feedback and insight into.
- I need to review the survey questions. My themes and analysis was limited due to the quantitative data that I collected. In future I would collect findings around the use of the tools and conduct interviews at a different time of year, to garner more in depth, qualitative responses.
- Some barriers were around student participation and attitudes, along with time restrictions.
- I realised I have been doing good teaching practice prior to the PGCert. It has made me see the relevance of that work and I've learnt to think in a broader way and share my ideas- they are valid and have use.

Reset project design by Mons Lohof Photography by Yujin Lim and Sean Oh
Another Magazine online

Action Research Cycle



What Next?

"Descriptive research may not answer all the fundamental questions, but it provides useful data which can serve as a basis for further research"

Verma & Beard 1981

- If I were to continue research I would take on an interview format, designing a workshop around the tools. I'd work with students who I have a more established relationship with and apply for funding to provide incentives for participation within the research project.
- I am really pleased with the conversations this project has sparked with colleagues and management. It has encouraged more thought and consideration of gaps within the studios and fostering a more inclusive space.
- I was thrilled that my manager will be applying for a capital bid to install adapted sewing machines in the fashion studios, sparked by our conversations around disability and adaptive tools and equipment.
- We will be creating posters in the studios to promote the kits to all students. They will be a bookable resource for students to test out.
- Looking at light bulbs on the machines, magnifying glasses, better labelling of needle plates etc to help with vision.
- Sharing the tools with the Outreach programme to encourage disabled students to apply to the course.

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Questions

- Many of the inventors and designers' work on display had created the objects and assistive technology out of necessity, helping them, as disabled people, navigate day-to-day tasks and interactions.
- I saw how inventions and design for disability are often adopted by able bodied people and help wider society. For example it highlighted adapted designs of everyday tools such as this fork shown here, as well as TikTok accounts promoting open source 3D printed tools created by designers who are disabled.