

EMMA Hamshare Microteach Documentation, See Powerpoint doc called 'Playful Soft Systems'

- Introduction and talk about circuits and their applications in textiles
- Textile interfaces definition
- Project examples – Space suit and sound installation with Input & Output
- Objects – sensors investigation
- Individual activity, creating your own soft system from optional key words
- Questions
- Students present ideas to the group for discussion on uses / unintended consequences.
- Extension task information
- Thoughts / feedback & Roundup

I chose to do my workshop 'Playful Soft Systems' which I describe using inputs and outputs. I put the word **playful** in the title deliberately as when I join a session I want to know ... how should I approach this ? Or as my students would say, "What's the vibe?". I have found that framing it as playful removes pressure and enables an open-minded approach.

I have run this several times over the last three years, and each time I adapt it, considering students previous knowledge and the timeframe. **Inputs and outputs** are a simplified way of explaining smart textile electronic systems and over years of working in this field, this is a way of thinking devised from my own learning.

I like to use examples from my own work to help students understand my positionality and perspective, it also builds trust in me as a tutor having practiced this work in the real world. Also expanding the possibilities for where design work can be professionally situated. I challenge the commonly held notion of fashion as an aesthetic and temporary field. Our work can be permanent and functional.

In response to Georgina's feedback in particular, 'Great format for longer session - content heavy for 20 mins'. In future I could explain my space-suit project in a much simpler way. And reduce it to one slide instead of three. The full design process doesn't need to be explained in a microteach, just the reason for the project and input and output.

On reflection and after feedback, I need to edit the slides to include a definition of soft systems, as one instantly thinks of computer systems, which can be intimidating. However in textile design the definition is much broader, including processes, surfaces and objects as well as sensors, actuators and digital tools.

The objects used are sensors, and when I run this session in person I have the physical sensors with me and allow students to pick up, touch feel and discuss between each other the new gizmo's that they can see. I think online I could re-use the time spent on the space suit to show students the actual sensors digitally instead.

Students had interesting ideas that demonstrated they had understood the concept well. There was a wonderful discussion too. This was a taster of working with tactile electronics to empower students to feel that they can design a soft system, and that the components to do so are all available to them should they choose to pursue it further.

After doing this session I often feel that I have over-prescribed the content for students. But on reflection when dealing with a topic that will be brand new to most people, I think it is helpful to have as much direction as possible, as Carys put it, to 'scaffold our thinking'. This is a balance that I will continue to examine and tweak as necessary and I'm grateful to have had such positive feedback on it.

Appendix1: Feedback from the Participants on the Padlet

As a reminder: Emma gave us prompts for inputs and outputs, and asked us to design a 'playful system'. I found your session challenging and thought triggering - inspirational content.

George Goodman - great format for longer session - content heavy for 20 mins Subject and delivery fostered critical thinking - tick... posing important questions in a fun way...thought this was a stimulating concept.

Hi Emma. Congratulations on a great micro-teach. As I mentioned in the session, I thought the question about 'unintended outcomes' was really thought-provoking - you managed to bring in ideas about sustainability and ethics without mentioning these concepts explicitly. Your expectations of us as learners was high - I mentioned Bloom's Taxonomy as a tool for thinking about Learning Outcomes, and your questions took us to the top of that pyramid (evaluation, creation). I agree with your reflection that perhaps some of the early content could have been omitted. At the very start, there were a lot of ideas about 'soft systems', 'inputs and outputs' - how might this be simplified?

Oh and I loved that you gave the slide of key words to scaffold our thinking! Input output was an interesting connection to what you do and something you are obviously very knowledgeable about which came across in your teaching. You perhaps had a little too much content and examples needed which meant I wasn't 100% sure I was doing the task right but the outcome was positive and I understood the principle of what you were teaching with regards to the input output. - Carys

Hi Emma, When I first saw the title of your presentation I was intrigued as to where the session would take us, but when you showed the example of the touch to sound instrument it all made sense. Learning more about your work and what you do at the university was great. I felt I learnt much from the presentation. I really enjoyed the activity and getting to make up an instrument of our own, I agree It would be a great workshop to do in person in pairs, (or even breakout rooms if you had more time online) If you do more sessions in the future I'd love to join! You presented confidently and I felt at ease during the session, It was great to see your passion towards your work.

<https://www.advance-he.ac.uk/knowledge-hub/wow-power-objects-object-based-learning-and-teaching>