ADAPTING AN EXISTING SUBJECT/UNIT

Case Study: Design

As a further resource that other Educators may wish to refer to, Cathy Lockhart (a Design team member in the project at UTS) explains her current work in planning ways to apply the learning model to existing consecutive subjects. This includes how the digital capabilities could be incorporated explicitly as students move from first, to second, to third year in their degree. It also builds on the project team's learning from the Design teaching intervention in 2017.

The planning underway focuses on what parts of the objectives and assessments could be changed to reflect the learning model, as explained below. If the proposed changes are approved, the next step would be designing appropriate learning activities.

Context

We have a suite of four Interdisciplinary design subjects, shared between six design degrees: two in first year, with one in each of second and third years. The subjects have been in existence for several years and use collaboration and the application of theory into practice at their core. This project has provided an opportunity to refresh the subject outlines, mapping with greater clarity the progression of digital capabilities over the subjects.

The existing subject learning objectives are provided below, followed by the proposed learning objectives. Diagrams also illustrate the intended progression in the Design practice 'families' or domains (Persuasion, Collaboration, Systems & Complexity, Tools & Making).

While digital capability development would be encouraged through integrating Functional, Perceptual and Adaptive thinking, the diagrams show the different emphasis on Functional, Perceptual and Adaptive in each year level and the direction of the learning trajectory. Adaptive capability requires some Functional knowledge/skills and Perceptual experience.

First Year

The two first year subjects work very much at a functional level of all skills including the digital. Currently digital capabilities are not explicit and are only incorporated primarily through the submission requirements of the assessment task. The rewording of the subject learning objectives would address this.

EXISTING - Subject learning objectives (SLOs)

On successful completion of this subject, students should be able to:

1. **Communicate verbally and visually with technical and conceptual competence.**
2. **Understand the complexity of key historical events important to design.**
3. **Describe and analyse perceptual experience, including an awareness of the relationship between form, style, material and idea.**
4. **Develop group work capabilities.**
5. **Develop professional research practice to an introductory level**

REVISED - Subject Learning Objectives (SLOs)

On successful completion of this subject, students should be able to:

1. **Discuss the significance of key historical events important to design (Persuasion)**
2. **Describe and analyse the relationship between form, style, material and idea, in diverse contexts (Persuasion)**
3. **Collaborate in digital group work activities (Collaboration)**
4. **Access and analyse data from a range of sources (analogue and digital) (Complexity & Systems)**
5. **Communicate verbally and visually according to specifications in the creation and size management of digital files of original work (Tools & Making)**

Figure 7 illustrates the mapping across the capabilities and the expectation of engagement in the Design Digital Capabilities Descriptor domains of practice 'families' (Persuasion, Collaboration, Complexity & Systems, Tools & Making), which would be used when briefing the teaching staff. The integration of Functional, Perceptual and Adaptive thinking would be encouraged, but emphasised differently according to the stage of learning.
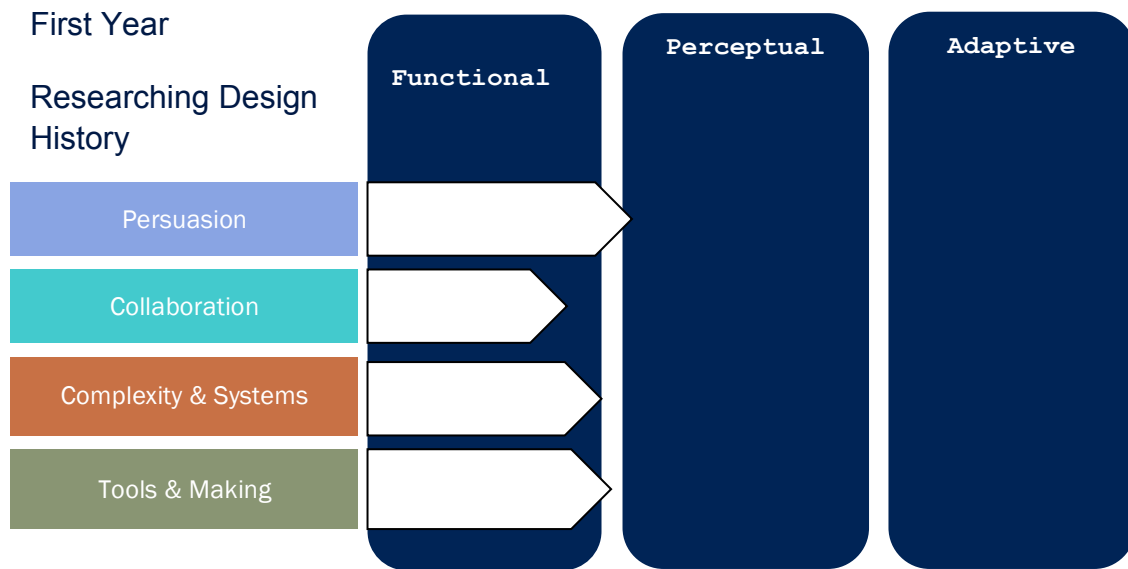
First Year

Researching Design History

	Functional	Perceptual	Adaptive
Persuasion			
Collaboration			
Complexity & Systems			
Tools & Making			

Figure 7: Mapping of capabilities across first year

Assessment criteria samples:

- Evidence of an analytical approach to historical and contemporary issues related to design and the designed (Persuasion)

- Evidence of a collaborative approach to digital group-work, resulting in a well organised, effective and engaging verbal presentation (Collaboration)

- Evidence of connection between existing research and the student's own analysis (Complexity & Systems)

- Careful presentation and editing, with the correct treatment of reference material, paragraph structure, formatting, spelling and grammar (Tools & Making)

Assessment task samples:

Task 1: Briefing the boss, week to week summaries – weeks 1-3 (20%)

You will submit an edited document that encapsulates what you have taken away from the learning focus of the first three weeks. Each entry ought to include evidence that you are attempting to understand material taken from the readings and lectures for that week, and reflections on visual sources. Each entry will be between 300-500 words in length. You may include images and drawings of your own choosing where appropriate. Submitted digitally through UTSonline (Blackboard)

Task 2: Group presentation, design artefact analysis and presentation (30%)

To research, prepare and present a group presentation

In class presentation

Task 3: Two 'deep dives' (50%)

Research and write two 'deep dive' essays

Select TWO modules and take TWO 'deep dives'. Each 'deep dive' should focus on a design artefact of your choosing. Your task is to situate and analyse each artefact within the context of your chosen study modules.

Your TWO 'deep dives' should demonstrate breadth and depth with regard to course content. Each should include explicit references to readings, draw on your artefact analysis skills, and demonstrate that your thinking has developed in relation to lectures, tutorials and independent further research. Each 'deep dive' essay will be 1000-1200 words in length and must include at least ONE correctly referenced image of your chosen design artefact that you need to discuss explicitly in your writing.

Submission saved as single PDF to be uploaded to Turnitin.

Second Year

The second-year subject relies on students bringing core discipline skills to a collaborative and speculative space. The subject layers new digital functional skills with perceptual expectations and increasing awareness of adaptive capabilities. The new subject learning objectives make digital capabilities more explicit within the design capability themes.

EXISTING - Subject learning objectives (SLOs)

On successful completion of this subject students will have achieved the following:

1. **To be able to communicate an introductory understanding of the fields of philosophy of technology, sociology of technology and critical and speculative design.**

2. **To be able to collaborate on the visualisation of future-orientated scenarios that will further an understanding of interdisciplinary design contexts.**

3. **To be able to communicate an understanding of the relationship between theory and the design of objects, communications and environments.**

4. **To be able to research, write and present an online research portfolio that includes developed arguments and rationales for design practice.**

5. **To be able to use design research methods such as interviewing, collaborative scenario design and prototyping.**

REVISED - Subject Learning Objectives (SLOs)

On successful completion of this subject, students should be able to:

1. **Use appropriate media to communicate developed arguments about the fields of philosophy of technology, sociology of technology and critical and speculative design (Persuasion)**

2. **Design and communicate digital stories to an identified audience, synthesising data gathered through interviewing, collaborative scenario design and rapid prototyping (Persuasion)**

3. **Compare and contrast the visual, text and atmospheric dimensions of design from the audience perspective (Persuasion)**

4. **Collaborate on the visualisation of future-orientated scenarios and justify using a variety of project management and communication tools (Collaboration)**

5. **Explain the relationships between theory and the design of digital objects, communication and environments (Complexity & Systems)**

6. **Select and use desk top analogue/paper rapid prototyping methods to communicate future technologies (Tools & Making)**
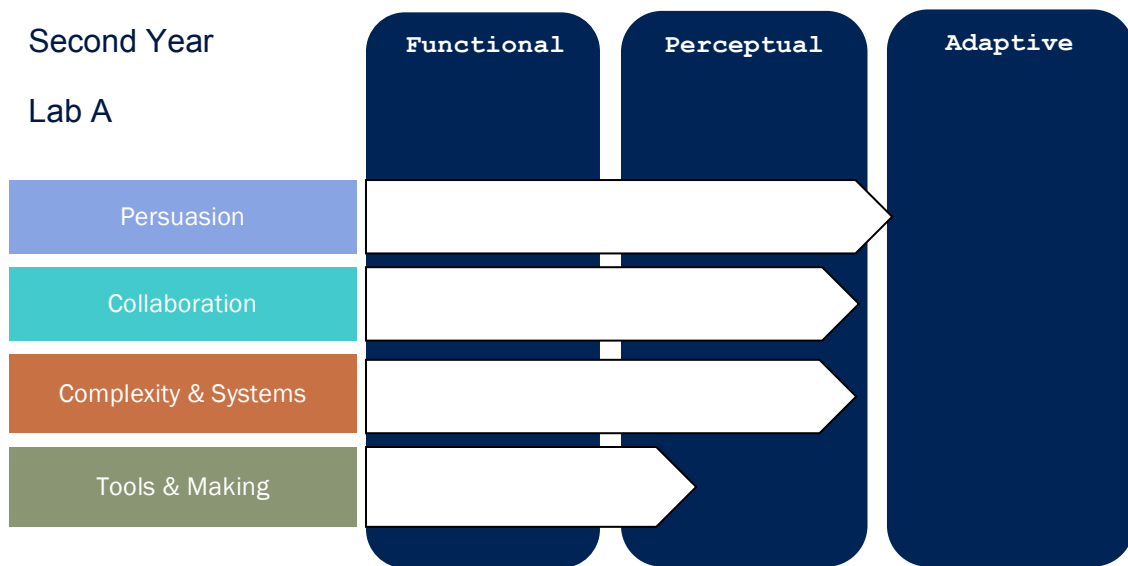
Figure 8: Mapping of capabilities for second year

Assessment criteria samples:

- Ability to apply a range of futuring methods to generate scenarios (double variable method, back-casting, STEEP analysis, cultural probes, personas etc.) (Persuasion)

- Appropriate and creative use of additional material (including original imagery as well as correctly referenced images, videos and hyperlinks) to illustrate arguments and extend discussion of weekly topics (Persuasion).

- Ability to work collaboratively including digital environments and communicate a cohesive project as demonstrated in presentation and scenario submission (Collaboration)

- Ability to synthesise qualitative and quantitative data in a design context (Complexity & Systems)

- Professional and ethical approach to conducting research and making results public. This includes providing completed consent forms for interviews (Complexity & Systems)

- Ability to produce a thought-provoking prototype that critically connects to the group's scenario from Task 2 (Tools & Making)

Assessment task samples:

Task 1: Online Research Portfolio (50%)

To engage critically with the concepts of the anthropocene; big data; and social technologies and to develop skills in logical and persuasive argumentation using textual, visual and design-based media. In interdisciplinary groups (4-5), set up a wordpress blog with each of you as users. Within your group blog, each of you are to post at least 4 times (500 words each).

Task 2: Future Scenario (30%)

To analyse and critique literature on emerging issues and developments in human-technology relations and to apply design-led methods such as quadrants, scenarios and back-casting to the research findings. To creatively engage with the research and produce well-reasoned future scenarios that communicate complexity and possibility affectively. To participate successfully in group research work.

In class group presentation 8 – 10 minutes in length. A future-orientated scenario for 2050. Scenarios can take the form of a film, animation (up to 4 minutes), graphic poster (A2), story board, or comic (up to 15 cell). Your scenario should make specific reference to objects, bodies and environments within which the future is set. It should not be in the format of a report. Your scenario should be located in a place, e.g. a city or a farm.

Task 3: Prototype (20%)

To develop and communicate a prototype that emerges from a collaboratively generated future scenario. In this task you will bring together everything you have learned about the potential for designers to creatively intervene in the future of human-technology relations with a "speculative object". You will design a speculative object, service or process that relates critically and imaginatively to the scenario you developed in Assessment 2. Your final submission is a physical exhibition of your prototype. It should be possible to experience the prototype within 3 minutes. The audience should get a sense of how your design would exist socially, and how it relates to the human body, how it would be used, by whom, as well as the context of its production, who owns it, who makes it etc.

Third Year

In the third-year subject there is an expectation that formal addressing of functional skills is not required, that students be experienced sufficiently that even if they do not have specific skills they know how to self-teach. The students are often working in intensive mode, off-shore with live briefs from local clients in Indonesia, China, Hong Kong and Berlin. The subject outline works as a scaffold for more contextualised learning guides developed by the individual tutors. The third-year subject is grounded in the perceptual with an expectation of moving further to the adaptive.

EXISTING - Subject learning objectives (SLOs)

On successful completion of this subject students will have achieved the following:

1. **to understand the nature and demands of live design briefs**
2. **to be able to collaborate in an interdisciplinary design context**
3. **to use design to effect change in complex situations**
4. **be able to plan and execute research in a professional manner**
5. **to connect design research to design generation and development and to be able to explain this**
6. **to undertake advanced reflective practice**
7. **to identify and appreciate different team roles**
8. **to use design arguments and rationales to work with complex and open briefs**

REVISED - Subject Learning Objectives (SLOs)

On successful completion of this subject, students should be able to:

1. **Explain the nature and demands of complex live design briefs through design arguments and rationales and recommend ideas for new approaches (Persuasion)**
2. **Plan and execute research synthesising different contexts presenting to an identified audience in a professional manner (Persuasion)**
3. **Use appropriate media to connect design research to design generation and development and propose new technology solutions (Persuasion)**
4. **Collaborate in an interdisciplinary design context justifying use of project management and communication tools appropriate for client and culture (Collaboration)**
5. **Critically reflect on individual and group practice (Collaboration)**
6. **Design and communicate using various data sources to generate new insights to effect change in complex situations (Complexity & Systems)**
7. **Select and use appropriate technologies for prototyping matching client or audience situation (Tools & Making)**
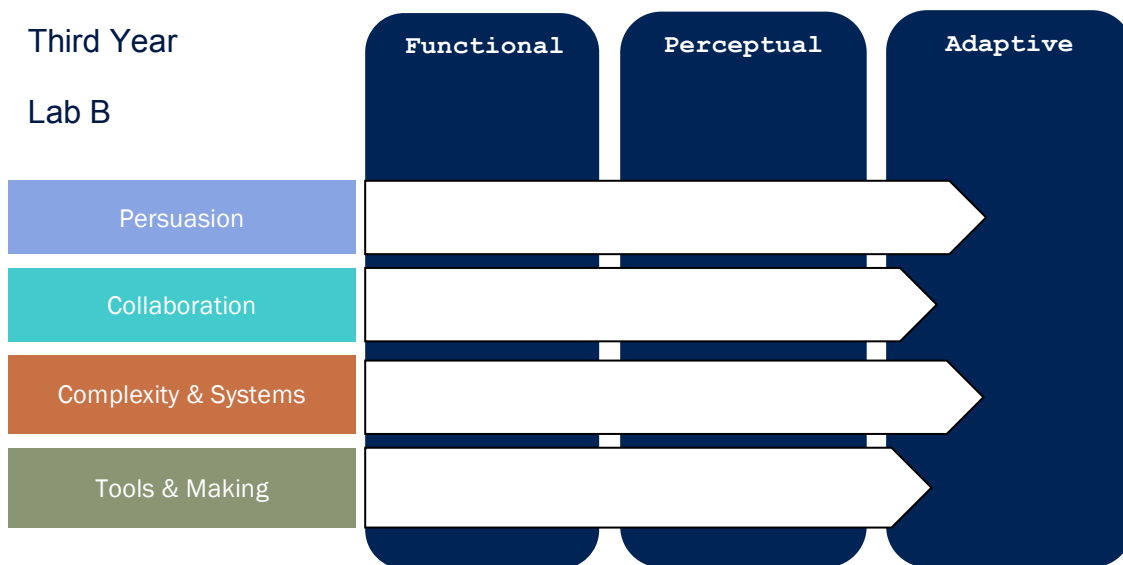
Figure 9: Mapping of capabilities for third year

Assessment criteria samples:

- Depth of engagement with research topic through design arguments and rationales (Persuasion)

- Quality of synthesis of relevant data in presentation of content, including written expression and referencing (Complexity & Systems)

- Quality of analysis using appropriate media to connect research to design generation (Persuasion)

- Planning and Management of group process through use of tools and methods (Collaboration)

- Quality and creativity of design ideas (Persuasion)

Assessment task samples:

Task 1: Research Document (30%)

Task 2: Group Presentation (10%) Design Project (40%)

Task 3: Critical Reflection Paper (20%)