

Learning outcomes

By the end of this tutorial, you and the students will have worked on the following five outcomes

1. Defining cultural dimensions of design problems
2. Identifying relevant data and knowledge sources
3. Generating possible solution/s to a problem
4. Developing the information for a preliminary plan to present to the client
5. Learning to evaluate proposed solution/s against standard performance criteria

About the Client Briefs

*All Briefs are for the same fictional client – **DemocEd** which wants to build a new school. However each brief includes a different focus for the work. Illustrations are provided to students to stimulate thinking.*

The Project

Design a low-cost school building that represents - in physical form - the school's strategic purposes of

- fostering equal rights, listening to others, and anti-bullying
- fostering community and family involvement
- encouraging flexibility and creativity
- social and environmental sustainability

Teams must complete five tasks – each one in some way requires them to

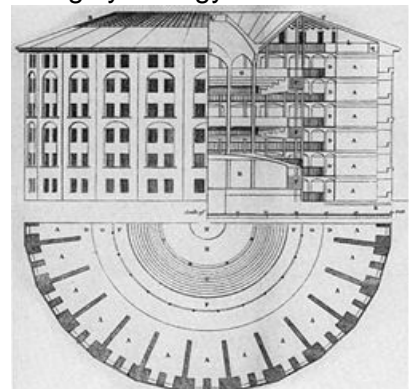
1. **Record** their understanding of what an engineer would ask a client, and what clients may expect of a consultant engineer. (Dowling, Carew & Hadgraft, 2010, p. 55)
2. **Demonstrate** their understand of what other information may be useful (climate, building materials available, etc.)
3. **Identify** where such information is available.
4. **Ask good questions** Including whether the project is about a new kind of space, or more effective use of traditional approaches.
5. **Illustrate** their grasp of the concepts of problem boundaries and components (pp. 65/68)



Review the student notes to understand how the tasks are described, and what they have to do.

Client 1 This client considers energy efficiency is a cheap, quick way to manage related costs; and wants to contribute to reducing greenhouse gas emissions. Their goal is a highly energy efficient school. This is more than simply using solar panels.

Client 2 – The client wants to use the Panopticon style of building to encourage self monitoring and for observation.



Unit 2 – Tutors *Working with Clients*



Client 3 – places great value on outdoors experiences like gardening to engage learners

Client 4 – is impressed by research showing that natural light improves learning capacity



For Immediate Release: June 25, 2010
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What we touch unconsciously influences how we think, says MIT Sloan professor

Series of experiments with weight, texture and hardness hold broad implications

CAMBRIDGE, Mass. — Heavy objects make job candidates appear more important, while rough objects make social interactions appear more difficult, and hard objects increase rigidity in negotiations, according to [new research findings](#) by a professor at MIT Sloan School of Management.

Through a series of experiments, Joshua Ackerman, an assistant professor of marketing at MIT Sloan, tested how three dimensions of touch — that of weight, texture and hardness — can unconsciously influence judgments and decisions about unrelated events, situations, and objects. The results hold implications for marketers and negotiators to job seekers and employers to everyday people who simply want to make more informed decisions.

Client 5 – believes strongly that physical contact has an impact on actions and emotions.



Client 6 – the client is very conscious of the need to meet local building codes; and wants assurance that all work will conform to those requirements.

Client 7 The client is particularly interested in bringing into the school environment changes that are coming in higher education. Instructors will circulate in classrooms and labs, sitting temporarily with student work groups, and learning places can include outdoor spaces, cafes, museums, art galleries and studios, and many other locations.



Graduate Qualities or Capabilities

Every University has its own statements about Graduate Qualities or Capabilities. These materials are built on those developed for the Faculty of Engineering at the University of Wollongong, which are online at <http://www.uow.edu.au/student/qualities/index.html>

In general the Qualities addressed in this unit of study are

1. **Being Responsible** = Appreciate and respect diversity. Act with integrity as part of local, national, global and professional communities. Given an ethical conundrum, describe & justify the 'right' course of action, and explain how to act to maintain a position of trust with society.
2. **Being an independent learner** = engage with new ideas and ways of thinking, and critically analyse *complex* issues. Design a structured approach to researching a question. Propose new directions for research based on findings.
3. **Using effective communication** = articulate ideas and convey them effectively using a range of media. Work collaboratively and engage with people in different settings. Recognise how culture can shape communication.

Session Plan

Resources

Dowling et al	As noted in the introductory materials for the EAC project these sessions were developed using this book as a base line reference. Other relevant texts are available and you can also find relevant material on various Internet sites.
Student handouts.	There are seven uniquely different project briefs. Each group of four must get the same brief, and the number of briefs will equate to the number of groups of four in the class. Thus a class of 28 would require the use of seven different briefs.

Timeframe for a two hour seminar

10 mins	Introduction and overview. Arrange the groups of four, and distribute the handouts as above.
40 mins	Develop responses to client brief. Group work – in two stages a) pairs and then b) fours as students work through the initial stages of a first client/consultant meeting.
20 mins	Sharing ideas - learning together. Cross-referencing – focus shifts to the range of possible cultural variations that emerge in relation to client briefs that appear superficially similar.
10 mins	Making adjustments – accounting for diversity
20 mins	Presentations – opportunity to demonstrate effective communication capabilities as well as their understanding of how to appropriately address specific client needs
15 mins	Summarising and review

Your Role

This session positions the Tutor in the role of a Project Portfolio Manager (PPM), whose role and responsibility is to ensure that all student groups prepare and present satisfactory responses to the Project Brief.

Do not work on the briefs yourself nor tell groups what to do. Positioning the role in this way provides students with the experience of being in charge of the task, with the knowledge that they have a backup in you and can ask for help at any time. It also means they will not be able to 'wait around' for you to tell them what to do.

The student worksheet includes timing for the session – as shown above. Remind groups of the deadlines and emphasise they are demonstrating their graduate attribute of 'responsibility' when they do so.

1. Introduction and overview – 10 minutes

Arrange students into groups of four. If this session follows directly after EAC session 1, ask students to rejoin their Session 1 groups, otherwise arrange the class into groups of 4 and ask them to arrange themselves and the room in a manner that best suits small group-based learning.

Open the session by explaining that you will be operating as the Project Portfolio Manager, describe what is expected of the groups, and the tasks ahead for them. Lead a short discussion on the general nature of a project brief to help them identify key issues they need to explore.

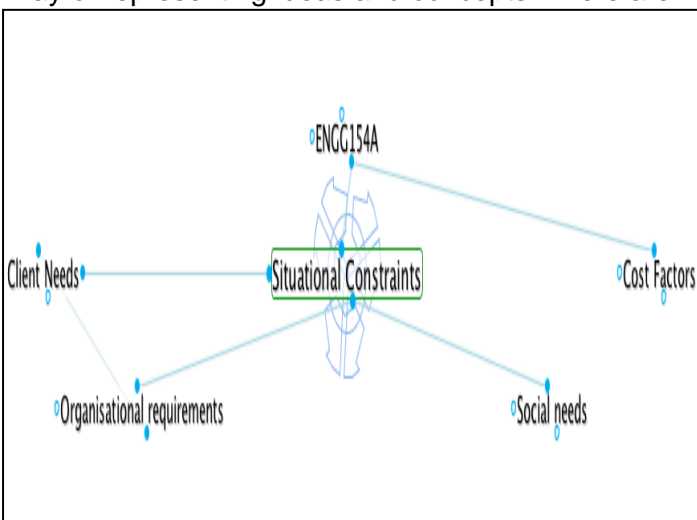
These might include

- What is a client brief? (see Chapter 2 pp. 52-54 Dowling et al. for assistance)
- What might need to be done to fulfill a client brief?
- What key issues might need to be addressed? e.g.
 - How should the buildings be oriented?
 - What sorts of services might be required?
 - What sorts of rooms might be needed?
 - What furniture and equipment might be used?

NB – if you are using Dowling et al remind them to pay attention to the inner circle of Figure 2.1 on p.54.

Suggest that students use mindmaps to identify and record their thinking. A mindmap is a visual way of representing ideas and concepts. There are many free and commercial software

applications to develop visually engaging mindmaps. This one uses the free download from PersonalBrain at <http://www.thebrain.com/> check out this and any others that interest you.



Team work 40 minutes – preparing a client brief

1. The Student handout for this session include two pages headed respectively –
You are a **Client** Representative

You are a **Consultant** Representative

Two students in each team use the **Client** sheet and the others use the **Consultant** sheet.

NB - The following timing can be varied but it is an important part of the PPM role to ensure that at the 40 minutes mark all groups are prepared to move to the new groups and present their findings. Call 'time' at each of the following points, briefly explain what is to be done and then step aside to allow the discussions to continue.

- 25 minutes - pairs works together to complete all the questions on the worksheet and record their responses as indicated.
- 10 minutes - rejoin their group partners, share ideas and add to their work sheets so that they all have as much information as possible about the whole brief and what is required
- 5 minutes - review what they have developed and prepare to move to new groups where they will work with others who are working on the same brief but for clients with quite a different focus. They must be able to present their requirements and describe how they plan to address them, as well as collecting as much data as they can about what the others groups are including in their considerations for the brief.

A sample of the table provided to help students think through the use of materials and resources when preparing a brief.

Info needed	Set text	Library	Web	Peers	Tutor	Outside expert