

Goals for this tutorial

Contributing to the discussion, and working well together on the tasks in this session will help you -

1. Define cultural dimensions of design problems
2. Identify relevant data and knowledge sources
3. Develop a preliminary action plan
4. Generate possible solution/s to a problem
5. Learn to evaluate your solution/s against standard performance criteria

Time plan

15 mins	Introduction and overview
40 mins	Develop responses to client brief [time includes preparation for next step]
20 mins	Sharing ideas - learning together
10 mins	Making adjustments – accounting for diversity
20 mins	Presentations
20 mins	Discussion and summary analysis

Graduate Qualities

Sessions in this series address capabilities required by competent and proficient engineers.

This session addresses Graduate Capabilities of

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.

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.

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.

Activities in this Session

The key purpose of this Session is to extend your awareness of ways in which culture and preferences influence choices and opinions in regard to matters requiring engineering action.

To do this well requires collaborative examination of both clients' needs and beliefs as well as the impact of professional knowledge and skills.

During this session you will:

- *use your current knowledge – and some assumptions – to develop responses to a range of issues likely to arise early in the process of negotiating a project with a client;*
- *work in different team combinations to explore both your knowledge and assumptions on the way to developing a viable client brief;*
- *practice skills of data analysis, summarising and preparation and presentation;*
- *demonstrate cultural awareness via sensitive analysis of needs, beliefs and possibilities.*

Pre-reading and Resources

Dowling, Carew & Hadgraft, 2010, Chapter 2

To understand key elements of a client brief, look closely at the inner circle of Figure 2.1 p.54.

Use of mind maps for research and analysis.

Focus questions when starting

Before you first meet the client consider -

- What is the purpose of a client brief?
- What might be needed to fulfill each new brief?
- How to identify and meet the beliefs and needs of each client?
- Key issues to be addressed might include:
 - How to orient buildings?
 - Services required?
 - Rooms/fittings/equipment/etc. needed?

You are a CONSULTANT representative

Develop as many responses to each question, as you can.

Use the table on the final page to record your response and where you could find the information you need

1. What would you ask the client?

For suggestions see Dowling, Carew & Hadgraft, 2010, p. 55 or other resources

2. What other information might be useful?

(Climate, building materials available, etc.)

3. Identify the problem boundaries and components and list them here (e.g Dowling et al p. 65, 67, 68)

Use these to consider whether this project concerns a new sort of space, or using traditional approaches more effectively?

4. Make a mind-map of what you would need to consider to get this under way

See the last page for a prototype and use this space to develop ideas

You are a CLIENT representative

Develop as many responses to each question, as you can.

Use the table on the final page to record your response and where you could find the information you need

1. What would you ask the consultant?

For suggestions see Dowling, Carew & Hadgraft, 2010, p. 55

2. What other information could you provide to the consultant?

(Climate, materials preferences, etc.)

3. Identify the problem boundaries and components (see pp. 65, 67, 68)

Use these to consider whether this project concerns a new sort of space, or using traditional approaches more effectively?

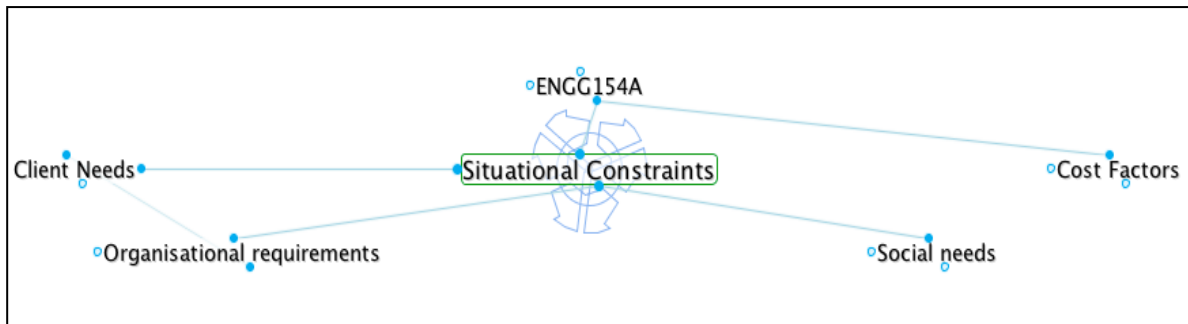
4. Make a mind-map of what you would need to consider to get this under way

See the last page for a prototype and use this space to develop ideas

Using a Mind Map to sort, analyse and arrange your ideas

A mind map is a diagram used to represent words, ideas, tasks, or other items linked to and arranged around a central key word or idea. Mind maps are used to generate, visualize, structure, and classify ideas, and as an aid to studying and organizing information, solving problems, making decisions, and writing.

This sample Mind Map suggests items you might use. There are many more points to add before you can be confident you are adequately addressing all the project issues. A good Mind Map has at least three levels. This only has one one layer of items linked to the central point so far. Yours needs to have a first layer like this, then items linked to those, and then items linked to those. Draw your Mind Map below.



http://en.wikipedia.org/wiki/Mind_map

Tutorial hand in marking criteria

For these sessions we are using a Satisfactory/Unsatisfactory arrangement for marking Tutorial tasks.

Just as in workplace context where work is ‘accepted’ or ‘rejected’ the process is intended to help students focus on developing competence at assessing their own work and identifying and completing what is actually required for a ‘Satisfactory’ mark.

For the first hand-in the following criteria will be applied.

‘**Satisfactory**’ is attained by work where all questions have been completed to a Professional Engineering standard in respect to content and presentation.

A Professional Engineering standard will be demonstrated by neat, tidy and readable work, sufficient information to satisfy the needs of the client/reader [Tutor] arranged in a manner that enables the reader to understand the thinking and agreement reached by the team. It will address all questions and demonstrate an adequate depth of analysis of client needs and contextual requirements.

‘**Unsatisfactory**’ work will be untidy, poorly arranged, hard to read and/or incomplete [one or more questions unanswered]. There will not be sufficient attention paid to the appearance and quality of the work and the client/reader’s needs have not been considered in a way that makes the work presented readable or usable.

CHECKLIST

To ensure your work meets the required standards, use this checklist to help you complete the work.

We have:

1. Answered all 5 questions.....
2. Completed the resources table with enough information to guide future work
.....
3. Kept our work
 - a. Tidy
 - b. Neat
 - c. Easy to read
 - d. Informative
4. Demonstrated consideration of the client’s needs
Evidence
5. Paid attention to analysing the client’s needs in the context of broader social, economic and environmental concerns
Evidence

Information required	SOURCES Include questions you'd ask to demonstrate understanding of the issues					
	Texts	Tutor / Lecturer	Library	Internet web sites	Peers Other than members of this group	Outside experts Assuming you reach them - list questions you'd ask