

Design and Professional Practice 2

Group Working

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The aim of this session is to provide you with an understanding of what is required to function as a team when developing an engineering product.

Aims and Objectives



Intended Learning Outcomes

- Demonstrate an understanding of the product development process.
- Participate in the formation of a functioning project team.
- Facilitate productive team meetings.



Group Working is an important skill

Share knowledge and ideas

- Expand awareness by taking into account others ideas

Draw on strengths of members (the whole is greater than the sum of it's parts)

Social Constructivism (Vygotsky)

Discussion makes you think and evaluate your own ideas to explain them

Group Working



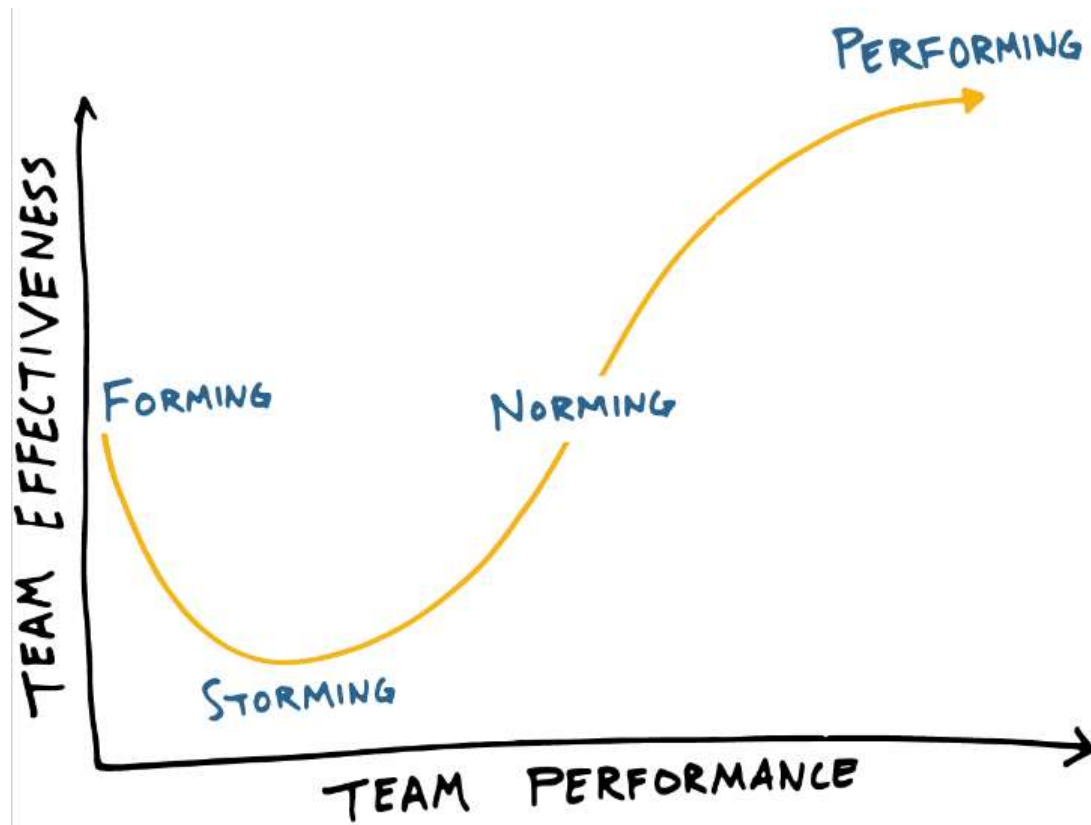
- Manage conflict (not easy)
- Communicate (key to good teamwork)
- Listen (an important part of communication)
- Be reliable (be on time for meetings)
- Be respectful (you are all in it together)

Interpersonal Skills



- Relationship building
- Communication
- Negotiation
- Accommodation





Team Performance



Group Structure

Project Supervisor

Project Team

Project Manager

- Point of contact for communications
- General organiser and delegator

Procurement Manager

- Responsible for purchasing
- Interaction with Bioeng-orders

Manufacturing Manager

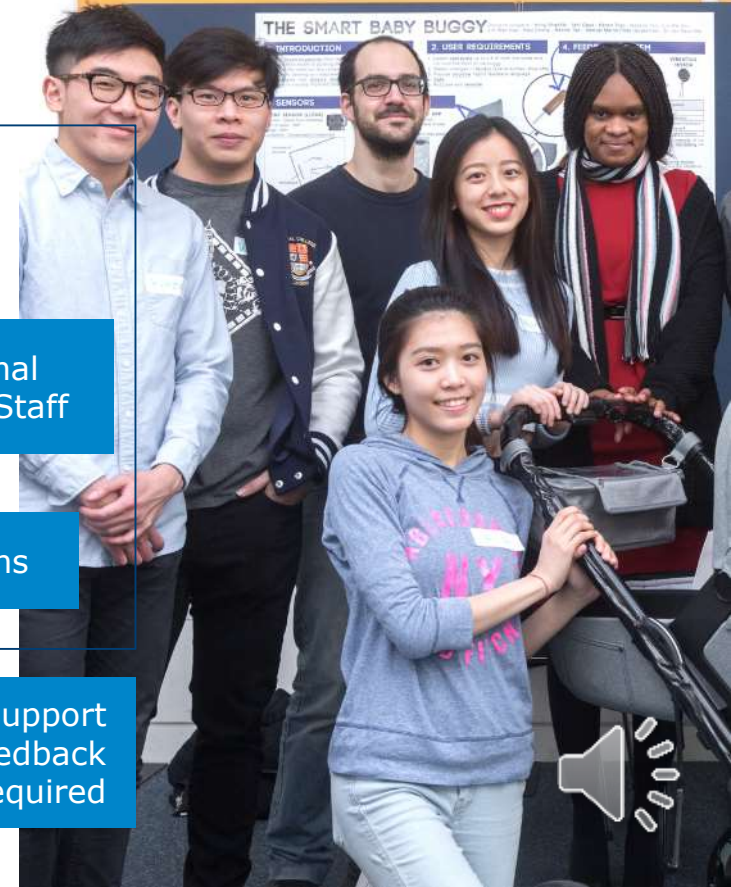
- Responsible for overseeing manufacture
- Interaction with Technicians

GTA's

Professional
Services Staff

Technicians

Regular meeting with Supervisor to advise and support
Update sessions with Supervisors to review deliverables and report feedback
Support from Technicians and Professional Services Staff as a when required



Sharing information with your Group

- Emails
- Blackboard
- Microsoft Teams
- Other Media
 - WhatsApp
 - Facebook
 - Twitter
- Professional Team Communication Tools
 - Slack.com
 - Asana.com
 - Flock.com
 - Padlet.com
 - OneNote

Communication



- Have regular meetings
- Keep records of important decisions (meeting notes)
- Share information



Managing a Team Meeting

- Plan meetings, schedules and deadlines
 - Set ground rules
 - Communicate efficiently
 - Build consensus
- Identify goals and divide workload
 - Have clear objectives
 - Define roles
- Meet group expectations
 - Clarify
 - Keep good records
 - Stick to the plan
- Monitor process
 - Monitor progress and stick to deadlines



Unconscious bias

a short cut made by the brain based on:

- Our own background,
- Personal experiences,
- Societal stereotypes,
- Cultural context.

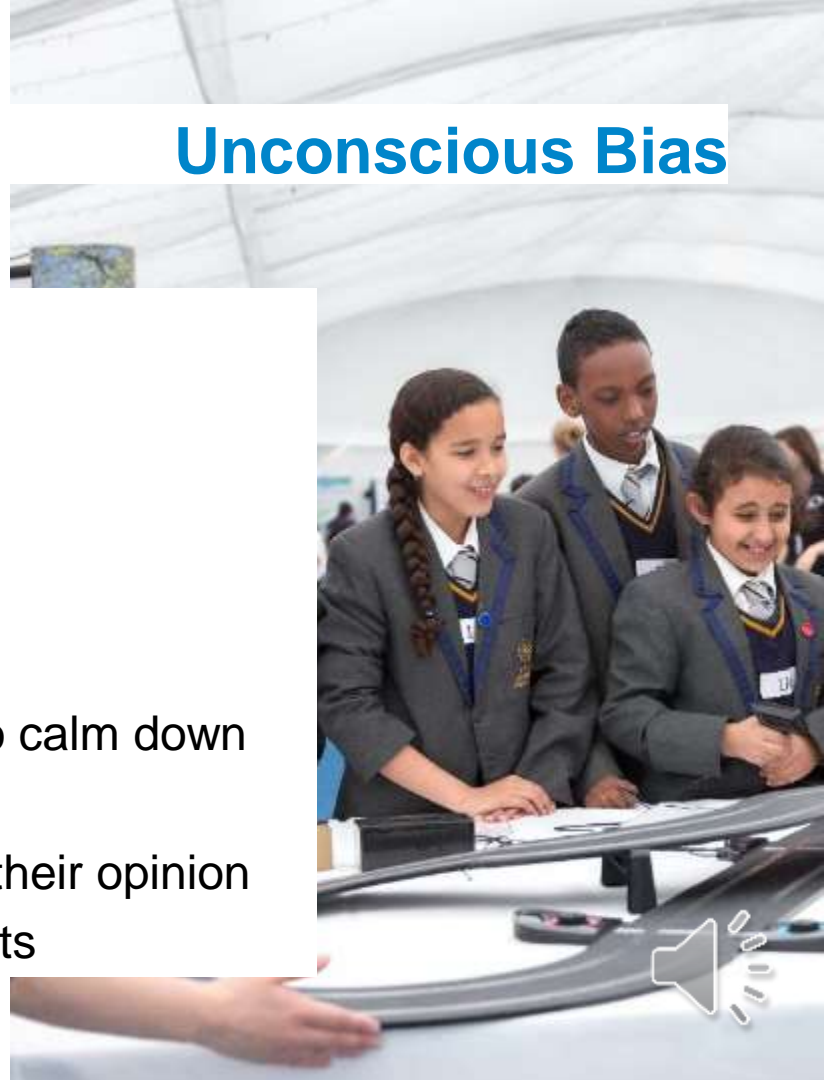
Unconscious Bias



Unconscious Bias

Tackling unconscious bias:

1. Become aware:
 1. Different types of bias
 2. Look at decisions you have made
2. Find your trigger
3. Slow down – take time before responding to calm down
4. Do one small thing differently
 1. Ask someone different in a meeting for their opinion
 2. Be positive – it supports actions as habits



When to be an Active Bystander:

- Bullying, harassment
- Micro-aggressions (small actions against an individual)
- Inappropriate comments or actions
- Threatening or aggressive behaviour
- Rudeness, raised voices or swearing
- Disrespectful or derogatory comments
- Unfair or unethical treatment of others

Active Bystander

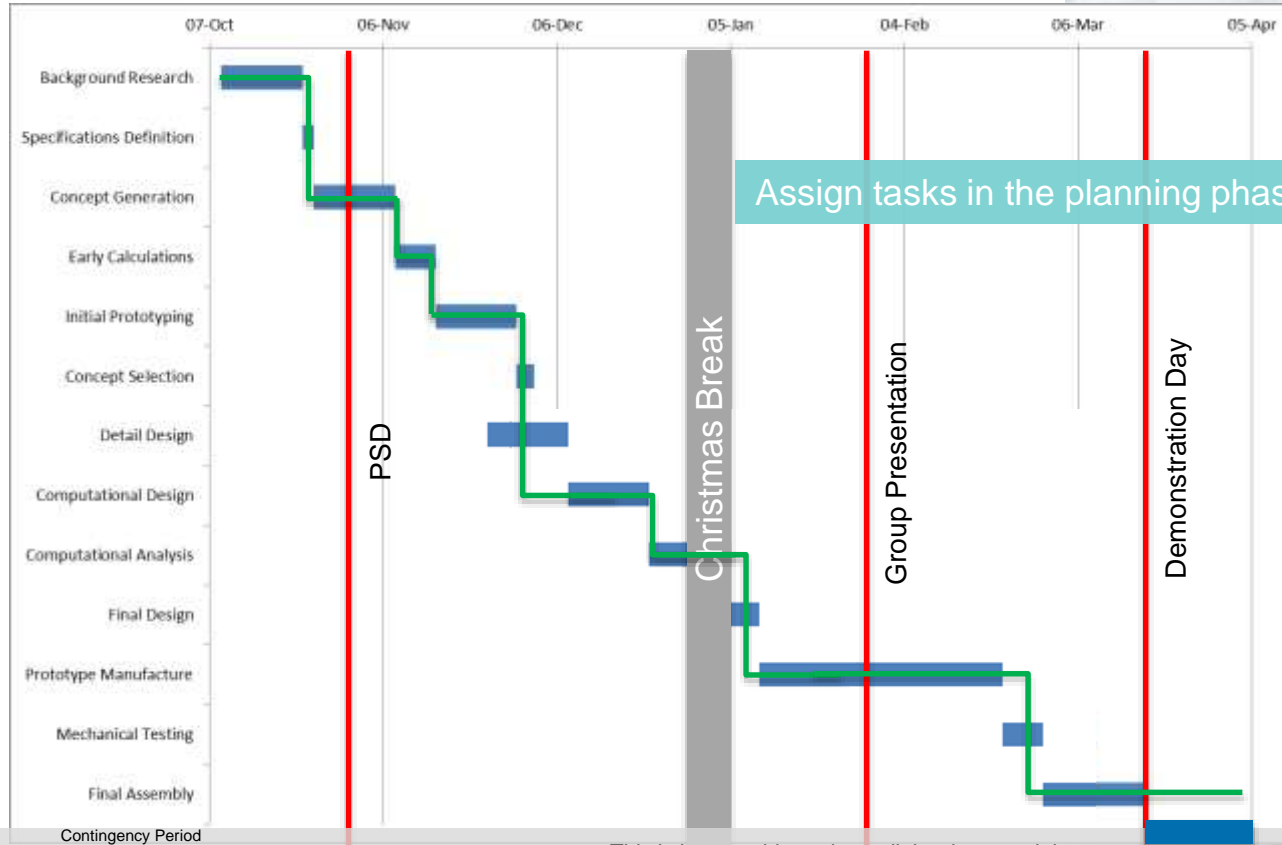


How to be an Active Bystander:

- Distract – interrupt, change the subject
- Direct Action – intervene and call out
- Delay – wait and act later
- Delegate – inform someone senior

Active Bystander





This is just a guide and not all the dates and times are accurate



Review

- What lessons can be learned for the future?
 - Successes
 - Failures
- What could be improved?

Close and Evaluation



Further Reading

<https://www.imperial.ac.uk/students/success-guide/ug/effective-study/working-with-others/effective-teamwork/>

[teamwork/https://www.potential.com/articles/teamwork/](https://www.potential.com/articles/teamwork/)

<https://student.unsw.edu.au/groupwork>



Royal Society

<https://www.youtube.com/watch?v=dVp9Z5k0dEE>

ICL

<https://www.imperial.ac.uk/engineering/staff/human-resources/unconscious-bias/>

ICL

<https://www.imperial.ac.uk/engineering/staff/human-resources/active-bystander/>

Further Reading

