Using the *affordance* of technology to adjust the design of a *flipped learning* pedagogy to address the needs of students with *complex learning needs*.
The story

Improve learning outcomes:
discipline knowledge plus generic graduate skills

Improve student engagement – use flipped learning approach

Class learning spaces rearranged: (remove the lecture)
The unit

- First year, first semester
- Marketing unit
- 750+ students (was 250)
Wade explains:

https://www.youtube.com/watch?v=m8kVtO--frw#t=55
Challenges emerged: 1

*Class size increased exponentially*

![Bar chart showing increased student enrollment from 2011 to 2013.](chart.png)
Challenges emerged: 2

The room less conducive for group work and belonging
Challenges emerged: 3

The pedagogical plan and learning design

1. Students on remote campus

2. Students with specific learning needs
Key factors

- Flipped class
- Student engagement
- Large class, equity
- Learning outcomes: knowledge
- Learning outcomes: skill
- Students with learning challenges
- Learning spaces / learning design
Generic graduate skills

- Apply concepts to real world situations.
- Verbal and written communication skills.
- Work in a team.
- Work in a consistent and structured manner during a defined time period.

Unit-specific Learning Outcomes

1. **role of marketing** in business and society
2. **marketing concepts**, and relevance to business problems
3. Analyse and interpret an organisation's **marketing mix** elements and **design improved actions**
Key factors

- Flipped class
- Student engagement
- Large class, equity
- Learning spaces / learning design
- Students with learning challenges
- Learning outcomes: knowledge
- Learning outcomes: skill
The client is a co-creator in the service they receive, then there will be a higher perceived value.

Educationally: if students are engaged in their learning the outcome for the university is a higher perceived value.

Jarvis, Halvorson, Sadeque, Johnston, 2014
Step 1: Put lecture online
• Information dissemination
• Independent work
• *Often* recorded lecture

Step 2: Put work / activity in class
• Understanding concepts
• Applying concepts
• Authentic, real activities

A “workshop of learning” in class for maximum use of face-to-face classroom time.

(Boyer, 2013)
Blended learning improves learning

1. Traditional lectures online + active learning in class = statistically significant higher test results
   (Lancaster, McQueen, Van Amburgh, 2011)

2. Meta-analysis of blended learning = student outcomes 1/3 higher than in-class only instruction
   (Bernard, Borokhovski, Schmid, Tamim, 2014)
Criticism of online part

• Technology **affords** *old pedagogies* (eg LCS)

• Recorded lectures online promote antiquated instructional methods *(Ash, 2012)*

• **Affordances** of contemporary technology – potential for richer, engaging, active, online learning *(Coates, 2006)*
Unrealised potential

- Flipped **learning** means (the opportunity for) more active processes for better learning *(Brunsell, 2013)*

- ... the flipped learning model can enable educators *(finally!)* to make the shift from teacher-driven to student-centred learning *(Hamdan, et al, 2013, 4)*

Literature gap in university studies: ALL students
Key factors

- Flipped class
- Student engagement
- Large class, equity
- Learning outcomes: knowledge
- Learning outcomes: skill
- Students with learning challenges
- Learning spaces / learning design
Engagement research

1. *Focus on engagement* for high quality learning

2. *Holds that* students are agents of their own learning
   
   *Krause & Coates, 2008*

3. *Examines* how students
   
   – are involved in the activities
     
     *Coates, 2006*
   
   – the effort put into learning
     
     *Astin, 1999*
1. Using engaging practices, esp. PBL, increased engagement.  
   (Ahfeldt, Mehta, Sellnow, 2005)

2. Including active learner practice (pair work, collaborative quiz work, group assignments) and high stakes, purposeful tasks, engagement and marks increased.  (Esposto and Weaver, 2011)

3. Overall: Strong impact on learning, achievement and retention of students in university study  (Astin, 1999)
Literature: engaging classrooms

Literature review (Taylor & Parsons, 2011)

- Technology-rich environments
- Authentic, real, relevant
- Peer, teacher-student collaboration
- Culture of learning
- Challenging, positive, risk-allowing class climate

Student engagement
Key factors

- Flipped class
- Student engagement
- Learning spaces / learning design
- Large class
- Learning outcomes: knowledge
- Learning outcomes: skill
- Students with learning challenges
1. Negative impact on student learning

- Sense of anonymity & lack of belonging
- Low attendance
- Poor engagement with content,
- Inadequate learning environments for cooperative and active learning practices
- Difficulty for staff in leading engaging and fruitful discussions

(Mulryn-Kyne, 2010)

2. Changed cohort

More diverse range of motivations, interest and ability in academic study

(Biggs & Tang, 2007)
Key factors

- Flipped class
- Student engagement
- Learning spaces / learning design
- For this Study
Two groups

1. Students on remote campus

2. Students with specific learning needs
Remote

Anticipated issues

• Lack of direct interaction with expert lecturer
• Tutors in past without relevant discipline knowledge
• No lecture recordings – tutor taking workshop, lack of ‘voice’ of expert lecturer

= Equity of access to expert

Stated issues

= None!

• If lecture recordings, great!*
• Very small group almost 1:1 direct support
• Now have expert tutor
• Very highly motivated and self-directed learners

BUT Equity of access to expert seen as valuable

Students with complex needs
## Learning design: remote

### Students with complex needs

<table>
<thead>
<tr>
<th>Flipped classroom model</th>
<th>Standard student experience</th>
<th>Non-standard students</th>
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</thead>
<tbody>
<tr>
<td>Knowledge development <strong>ONLINE</strong></td>
<td>Complete online work in <strong>LMS</strong></td>
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<tr>
<td>Critical thinking skills development <strong>WORKSHOP</strong></td>
<td>Large class* workshop Small group and whole group <strong>discussions</strong> *Lecture room 400</td>
<td>Teacher talk – online synchronous Group discussion Class notes: google doc</td>
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<tr>
<td>Application to real world contexts <strong>TUTORIAL</strong></td>
<td><strong>Group work</strong> assignments with tutor support</td>
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</tr>
</tbody>
</table>
Learning challenges

• Learning in large group active sessions (ie too much going on to learn)

• Keeping to same pace (eg assessments or tasks)

• Social setting challenges (anxiety in groups, speaking)

• Unpredictable conditions (eg pain, chronic fatigue, mental health)

• Life outside university and attendance (eg elite sportspersons)
Learning design: challenges

**Students with complex needs**

**Standard student experience**
- Complete online work in LMS
- Large class* workshop
- Small group and whole group discussions

*Lecture room 400

**Non-standard students**
- Complete online work in LMS
- Teacher talk – online synchronous
- Group discussion
- Class notes: google doc

**Group work assignments with tutor support**

**Unique individual factors:** eg.
- Anxiety, depression, social disorders, listening, seeing
- Speak in groups, in front of others, large / small
- Multiple stimulus – listen, contribute, notes, learn
- Elite sports persons - attendance

**Any time, anywhere, Any help**
Learning design: challenges

Students with complex needs

Australian *Disability Standards on Education 2005*

*The right to participate in education the same as students without a disability, even if on occasions adjustments must be made*


ONLINE work

~

Same for all

~

Any time, anywhere, any help

Workshops & Tutorials?
Students with complex needs

**Learning design: challenges**

**Standard student experience**

- Large class* workshop
- Small group and whole group discussions
- Group work assignments with tutor support

*Lecture room 400

**Non-standard students**

- Teacher talk – online synchronous
- Group discussion
- Class notes: google doc
- Group work assignments with tutor support

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- Anxiety, depression, social disorders, listening, seeing
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**Disability Standards:** The right to participate in education the same as students without a disability, even if on occasions adjustments must be made
Learning design: challenges

Adjustments not sufficient? Attendance not possible?

**Standard student experience**
- Large class* workshop
- Small group and whole group *discussions*
- *Lecture room 400

**Non-standard students**
- Teacher talk – online synchronous
- Group discussion
- Class notes: google doc

**Students with complex needs**
- Workshop *recorded Discussion Forum*
  *If other options not possible
- *Group work* assignments with tutor support
  w/special consideration
Online learning space

Critical factors in student engagement:
• Interaction with teaching staff
• the lack of a teacher person online

Critical factors in online design:
• Useability
• Structure and clarity
• Visual attractiveness
Online learning space


Use of videos 1
Introduce unit
And learning spaces

https://www.youtube.com/watch?v=m8kVtO--frw
Online learning space


Use of videos 2
Introduce topic
And activity

"In a traditional sense, marketing is about the exchange of goods and the good comprises a bundle of attributes including (and usually) a brand attribute. Products can also be classified and this gives us some direction for marketing activities and products are also theorised to have a lifecycle and this can also give direction for marketing activities. Remember the product lifecycle but also remember the market lifecycle!!!!!!"

https://www.youtube.com/watch?v=OHWuYejhovo
"It is not the answer that enlightens, but the question."

"The most important thing is not to stop questioning."

Any Questions?