where is teaching and learning heading?
technology and other factors
1970
• A logger sells a lorry load of timber for $1000.
• His cost of production is $800.
• What is his profit?

1980
• A logger sells a lorry load of timber for $1000.
• His cost of production is $800.
• What is his profit?

1990
• A logger sells a lorry load of timber for $1000.
• His cost of production is $800.
• Did he make a profit?

2000
• A logger sells a lorry load of timber for $1000.
• His cost of production is $800 and his profit is $200.
• Underline the number 200.
2010

- A logger cuts down a beautiful forest because he is totally selfish and inconsiderate and cares nothing for the habitat of animals or the preservation of our woodlands.
- He does this so he can make a profit of $200. What do you think of this way of making a living?
- Topic for class participation: How did the birds and squirrels feel as the logger cut down their homes? There are no wrong answers.
- If you are upset about the plight of the animals in question, counseling will be available
pressures on learning and teaching

- funding
- regulations
- international
- research
- accreditation
- competition
- standards
- technology
- learners
changes in learning and teaching

- some variables
  - what is taught
  - how it is taught
  - the tools used
  - assessment
  - who is taught
  - who teaches
  - location
  - time

- some constants
  - how students learn
  - what motivates students
  - what motivates teachers
university courses

- restricted
- fixed units
- independent
- academic

- accessible
- flexible
- accredited
- employment-oriented
what is taught

- content-based
- knowledge
- principles
- teacher dependent

- outcomes
- capabilities
- soft skills
- negotiated
tools for learning and teaching

- classrooms
- general
- teacher

- technology
- specialist
- learner
organisation of learning and teaching

- small classes
- homogeneous
- discipline-based
- face-to-face
- extended

- large classes
- heterogeneous
- soft skills
- blended
- compacted
who is taught in universities

- school leavers
- Gen X
- Gen Y

- adult learners
- first in family
- international
assessment

- “of” learning
- academic
- summative

- “for” learning
- authentic
- formative
how we teach

- didactic approaches
- teacher-centric
- direct instruction

- experiential
- learner-centric
- inquiry-based
time of learning and teaching (when)

- timetabled
- programmed
- weekly

- flexible
- just in time
- when needed
who is teaching

- academics
- trained teachers
- full-time staff

- workplace
- sessional staff
- contract
- self-teaching
teaching and learning spaces (where)

- lecture rooms
- classrooms
- fixed spaces

- flexible spaces
- virtual spaces
- open spaces
designing an engaging learning experience

- the learning design
- aligning aims and outcomes
- planning learning tasks
- selecting learning resources
- planning learning supports

**Learning Tasks**
- problems
- investigations
- projects
- tasks
- role plays

**Learning Resources**
- tutorials
- quizzes
- simulations
- worksheets
- books
- papers
- articles
- notes
- documents
- manuals
- references
- web links
- case studies
- lectures

**Learning Supports**
- scaffolds
- heuristics
- strategies
- templates
- schedules
- instructions
- procedures
- announcements
- teams
- collaboration
- tutorials
- conferences
- buddies
- mentors

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Third National Palliative Care Education Conference, February 2010
what the theory says about learning

learning occurs through
• knowledge construction
• practice and reflection
• experiential processes
• thoughtful activities
• self-regulation
• meaningful assessment and guidance
technology and learning

- better learning
  - relevant, meaningful, interesting, engaging, applicable

- more learning
  - efficient, better guided, better supported, more accessible, flexible,

- better learners
  - self-sufficient, independent, resourceful, active, willing
1. better learning

- real-world relevance
- ill-defined and complex
- sustained investigation
- alternative perspectives
- collaborative
- reflective
- inter-disciplinary
- integrated assessment
- polished products
- diversity of outcomes

(Herrington & Oliver, 2000)
learning communities

- connected learners
- shared learning spaces
- supporting social discourse
- reflection, articulation,
- collaboration
  - a sense of membership
  - a feeling of influence within the group
  - fulfilment of needs
  - shared emotional connection
learning scaffolds

- moving students out of their comfort zone
- providing a support mechanism
- catering for individual needs
- using a variety of supports
- just-in-time
2. more learning

- availability of learning
- access to knowledge
- flexibility of learning
  - learning resources
  - administrative support
- efficiency in delivery
flexible learning

- learning management systems
- electronic delivery
- distributed learning
- virtual learning

- sustainable
- generally successful
technology-based support tools

- administrative support
- efficiency in delivery
- efficiency in management
- support for quality assurance
- scalable reuse
3. better learners

- independent learners
- self-regulated learners
- developing metacognitive skills
- self-sufficient learners
learning tools and resources

- laptops
- iPods
- discussion boards
- blogs
- wikis
- syllabi
- email
- connections
- i-TunesU
- open courseware
social software

- how students use ICT
- thinking like students
- learning beyond classrooms
- vicarious learning
technology solutions

• catering for diversity in cohorts
• providing flexible options
• challenging strong students
• scaffolding weaker students
• developing communities
• learning support
• information access
the missing element: learning designs

- descriptions of learning activities
  - supporting discovery
  - conceptual descriptions
  - roadmaps/lesson plans
  - steps for reuse

- issues
  - few models of practice
  - broad and ambiguous language
  - how to categorise?
  - how to disseminate?
  - preserving the role of the teacher
learning and teaching elements

- learning tasks
  - engage learners
  - context
- learning materials
  - content
  - information
- learning supports
  - teacher
  - peers

task resources
- case examples
- case studies
- simulations
- virtual settings

task supports
- guidelines
- templates
- models

learning materials
- course content
- books
- online resources
- primary sources

resource supports
- tutorials
- instructional materials
- quizzes
- learning objects

learning supports
- teacher support
discussion boards
feedback
monitoring
## Identifying Learning Designs

<table>
<thead>
<tr>
<th>Level of outcome</th>
<th>knowledge acquisition</th>
<th>understanding</th>
<th>problem-solving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Guidance</td>
<td>high</td>
<td>medium</td>
<td>low</td>
</tr>
<tr>
<td>Content focus</td>
<td>information</td>
<td>application</td>
<td>evaluation</td>
</tr>
<tr>
<td>Content Application</td>
<td>procedural</td>
<td>interpretive</td>
<td>creative</td>
</tr>
<tr>
<td>Learner freedom</td>
<td>low</td>
<td>medium</td>
<td>high</td>
</tr>
<tr>
<td>Learning Form</td>
<td>practising</td>
<td>choosing</td>
<td>designing</td>
</tr>
<tr>
<td>Learner Preference</td>
<td>teacher-centred</td>
<td>teacher-directed</td>
<td>learner-centred</td>
</tr>
<tr>
<td>Engagement</td>
<td>reading, browsing, watching, describing, reviewing</td>
<td>comparing, planning, questioning, seeking, organising</td>
<td>investigating, inquiring, analysing, evaluating, synthesising</td>
</tr>
</tbody>
</table>
### Reusable Learning Designs

<table>
<thead>
<tr>
<th>Task-Directed</th>
<th>Task-Guided</th>
<th>Task-Autonomous</th>
</tr>
</thead>
<tbody>
<tr>
<td>• content acquisition</td>
<td>• knowledge acquisition</td>
<td>• application and understanding</td>
</tr>
<tr>
<td>• learning processes and procedures</td>
<td>• application of knowledge</td>
<td>• problem-solving</td>
</tr>
<tr>
<td>• direct application</td>
<td>• set processes and procedures</td>
<td>• applied processes and procedures</td>
</tr>
<tr>
<td>• fixed scope</td>
<td>• fixed body of knowledge</td>
<td></td>
</tr>
<tr>
<td>• defined outcomes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
reusable learning designs

- task-directed
- task-guided
- task-autonomous
for example: pcc4u
trends: mobile media devices
trends: virtual learning
21st century outcomes

- accessing and using information
- communication skills
- demonstrating understanding
- applying rules and procedures
- being creative
- thinking critically
- making sound judgments
- problem-solving
- life-long learning
- exhibiting intellectual curiosity
take home message

• avoiding “Shakespearian scripts”
• learning and teaching have many complexities
• the focus is often on the inputs
• today there are many issues to confront
• there are also many opportunities
• there is a need to focus on the learners
• a need to design for learning
• use assessment appropriately
• include reflective practice
how things evolve
how things evolve
where is teaching and learning heading? technology and other factors