Carmel McNaught

A global perspective on building opportunities for all students: Experiences in Africa, Australia & Hong Kong

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Role of a keynote speech

- to stir things up ... which might overturn ideas & beliefs
- to explore some underlying assumptions & concepts
Essence and detail …

- You will see & hear different things in this talk depending on your T&L beliefs and your experience.
- Core principles are transferrable.
- Details? Maybe or maybe not …

http://tinyurl.com/2fmbwh
Outline

- A potted personal history across 4 phases
- Spatial and temporal contexts
- Lessons learnt on the journey
- Phase 5: ??

First, let’s begin with a little social media …
Shifts in geographical cultures

Phase 1

Phase 2

Shifts in disciplinary cultures
Shifts in geographical cultures

Phase 3

Phase 4

Shifts in disciplinary cultures
Socio-political contextual factors

- Phase 1: Australia in the 1970s (Vietnam war, Labour government, end of ‘white Australia’)
- Phase 2: Africa in the late 1970s/1980s (war, apartheid, democracy, AIDS)
- Phase 3: Australia in the 1990s (indigenous rights, return of Liberal government, gun control)
- Phase 4: Hong Kong in the 21st century (relationship to Mainland China, economy, SARS)
Are these shifts transitions or dislocations?

Language? English, Zulu, Cantonese …

- Sapir-Whorf (linguistic relativity) or Chomsky (universal grammar)?
- My view: ‘Truth’ resides in the tension between opposing poles

## Examples from Zulu/English

<table>
<thead>
<tr>
<th>English term</th>
<th>Zulu definition</th>
<th>Literal translation</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>ammonia</td>
<td>umuthi ongumoya oxutshwe ngamanzi onephunga elihlabayo; NH₃</td>
<td>poison that is air mixed with water with smell that is piercing</td>
<td>A functional rather than structural definition</td>
</tr>
<tr>
<td>compound</td>
<td>inhlanganisela yazithako zemvelo ezimbili</td>
<td>the intermixing of mixtures of nature which are two</td>
<td>Confusion between compounds and mixtures. The use of ‘nature’ and ‘two’.</td>
</tr>
<tr>
<td>density</td>
<td>ukuminyana; isikalo sesisindo nomthamo</td>
<td>the concentrate; the measure of mass and volume</td>
<td>No indication of ratio at all</td>
</tr>
<tr>
<td>energy</td>
<td>amandla okwenza umsebenzi</td>
<td>power to do work</td>
<td>No distinction between ‘power’ and ‘energy’</td>
</tr>
<tr>
<td>ultra-sound</td>
<td>umsindo ongabekezekeleki ngenxa yobukhulu</td>
<td>noise not tolerated because of loudness</td>
<td>Confusion between loudness and frequency</td>
</tr>
</tbody>
</table>

McNaught (1992)

Remember that most of us are …

■ WEIRD
Remember that most of us are ...

- WEIRD
- Our cultural background is ...
- Western Educated Industrialized, Rich, Democratic

Image extracted from Spinney (2010), p. 42
Three-stage conceptual change model

1. Evidence of the need for change
2. Confronting/ negotiating the situation
3. Reconstruction of a new approach

E.g. Lewin (1952); Nussbaum & Novick (1982)
Examples from Chinese(s)/English

- Singular/plural
- Prepositions
- Tense (esp. conditional)
- Passive vs active sentences
How important are these differences for learning?

- Cognitive load?
- Motivation aspects?
- Greater or lesser insights into nuance?
- How does diversity in a class influence outcomes?
- What about classroom interactions?
Is it such a shift?

Welcome to the Science Box

http://cdn3.ioffer.com/img/item/140/405/147/ViRp.jpg

But what about this?

Welcome to the Science Box

http://cdn3.ioffer.com/img/item/140/405/147/ViRp.jpg

http://www.slhs.us/home/180002483/180002483/images/P1020594.JPG

http://www.mcg.edu/its/networking/images/student-at-computer.jpg

http://www.mcg.edu/its/networking/images/student-at-computer.jpg
How eLearning strategies are being used at present. Student data from 21 university courses in HK. ~600+ q’aires.

Kember, McNaught, Chong, Lam, & Cheng (2010)
Design of website

Information
- Frequency of use of information
- Frequency of use of additional resources
- Examples
- Clarity
- Organisation

Constructive Dialogue
- Frequency of use of interactive features
- Active Learning
- Interaction by communication

Approach
- Deep approach

Communicate
- Motivation
- Communication skills
- Group work

Understanding
- Information literacy
- Understanding fundamental concepts
- Understanding relevance
- Problem solving

CFA models
Learning outcomes
Implications for the meaning of digital literacy

SEM model
Students considered that using features which promote constructive dialogue and interactive learning activities encourages a deep approach to learning, the development of communication skills and enhanced understanding of content.
We now use the term ‘learning designs’

CUHK T&L policy.
Universal decision questions

- Who are my students?
- Why am I teaching this … ?
- Which content? In what form? How much? Who finds it?
- Relationship between online and F2F?
- Getting feedback to Ss on their learning?
- Getting feedback to Ts on Ss’ learning?
- Is this learning going to last?
- Can I do this better?
These ideas fit with long-standing T&L models

E.g. Laurillard’s (1993, 2002) conversational model

- between student(s) and teacher(s)
- between the students
- about the content
- focused on concepts/
  conceptions
- about tasks/ assessments
- about artefacts produced
- etc.
Activities, e.g. discussions, quizzes, games, simulations, debates, roleplays, etc.

Media-enriched explanations - produced by teachers or students

Diagnostic testing/ info. on learning prefs

Teacher's conceptual knowledge

Student's conceptual knowledge

A range of communication & collaboration opportunities with other students

Peer reviews, tests, exams

Reflection on student work

Revision of personal ideas

Revision of learning strategies

Reflection on interactions

Teacher's conception of learning design

Student's actions in/ perception of T&L environment

Reflective spaces, e.g. blogs, ePortfolios

Assignment, presentations

Feedback for evaluation

After Laurillard 1993, 2002
Teachers are individuals with different beliefs & practices

Bain & McNaught (2006)

22 cases of Australian academics using technology-enhanced teaching
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<td>Knowledge + Understanding Disciplinary ways of knowing Professional/Artistic performing</td>
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| PRACTICES | | | |
| Task Structure | High | 2 | 3 | 4 | Low |
| Interactivity | Navigational | 2 | 3 | 4 | Manipulative/ Constructive |
| Learning Control | Teacher managed | 2 | 3 | 4 | Student managed |
| Accommodation of Individual Differences | Non-existent | 2 | 3 | 4 | Multifaceted |
| Metacognitive support | Unsupported | 2 | 3 | 4 | Integrated |
| Learning Process | Reproduction | 2 | 3 | 4 | Construction |
| Learning Framework | Structured | Guided | Facilitated |
| Learning Focus | Knowledge | Reasoning | Performance |
2010 Horizon Report: Critical challenges

- The role of the academy – and the way we prepare students for their future lives – is changing.

- New scholarly forms of authoring, publishing, and researching continue to emerge but appropriate metrics for evaluating them increasingly and far too often lag behind.

- Digital media literacy continues its rise in importance as a key skill in every discipline and profession.

- Institutions increasingly focus more narrowly on key goals, as a result of shrinking budgets in the present economic climate.

Phase 5

21st C Literacies

- Visual Literacy
- Cultural Literacy
- Network Literacy
- Global Literacy
- Computer Literacy
- Written Literacy
- Media Literacy
- Library Literacy
- Linguistic Literacy

After blogs.ubc.ca/dean/files/2009/02/bloom1.gif
Web 1.0
"the mostly read-only Web"
250,000 sites
45 million global users
1996

Web 2.0
"the wildly read-write Web"
80,000,000 sites
1 billion+ global users
2006

Web 3.0?
"the smart read-write Mobile Web"

interconnected
user
published
content
generated
content

http://web2.socialcomputingmagazine.com/

2010 ...???
Lots happening …
How can we achieve convergence?

- New tools
- New contexts
- New opportunities
- Ongoing principles to guide us on this journey …

http://www.parkenet.org/jp/challenges/convergence.jpg
Summary

Themes:

- Negotiate educational beliefs in each situation
- Focus on the details of learning design
- Consider the importance of relevant and authentic tasks that enable learners to develop lifelong learning and earning capabilities
- Accommodate shifting roles of both teachers and learners in a mutual comfort zone
- Enjoy the experience!
The future is the next generation ...

http://commons.wikimedia.org/wiki/File:Children_in_Namibia%281_cropped%29.jpg

January 2011

http://www.chinawikipedia.com/chinapeople.html
Thank You


