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Presentation

The First-Time eLearner's Journey: An examination of attrition and withdrawal issues in workplace-based eLearning programmes

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Attrition in Distance Education

Distance education and the issue of student retention and completion rates have been investigated and argued over for at least the last seven decades (Berge & Huang, 2004)

- Particular attention since advent of eLearning
- Drop rates put variously at:
  - o 70-80% (Forrester, 2000, Meister 2002)
  - o 50 - 60% (Frankola 2001)
  - o 20 – 60% (Diaz 2004, Carr, 2000)
- Tinto (1982) 40 - 45% for on-campus undergrads – consistent for most of last century

Validity of statistics

- Questions raised of relevance and/or validity of reporting,
- Drop rates & retention statistics are, fragmented; do not compare like with like; and are either unreliable and/or misleading (Hall, 2001, Wang, Foucar-Szocki, Griffin, O'Connor and Sceiford, 2003)

Why Worry?

- Attrition in eLearning courses is important for two reasons:

1. To what extent is attrition
   - a symptom of poor eLearning design & practice;
   - a lack of preparedness of learners to undertake eLearning
   - unrealistic expectations of learner capability
   - failure to fully understand the critical factors that impact on online learners
2. Evaluating what approaches and strategies might work to increase learner persistence and reduce attrition, thus increasing the cost effectiveness and learning effectiveness of online distance learning itself

Case Study

- Tertiary Accord of New Zealand (TANZ)
- 3 NI & two SI Polytechnics / Institutes of Technology
  - ➢ Manukau Institute of Technology (MIT)
  - ➢ Universal College of Learning (UCOL)
  - ➢ Christchurch Polytechnic Institute of Technology (CPIT)
  - ➢ Otago Polytechnic
  - ➢ Eastern Institute of Technology (EIT)

eLearning Project

- Government contract to develop and pilot the National Certificate in First Line Management – online
- 2004/05 delivered to NZ public sector employees
- Main driver for online programme:
  - – wide geographical distribution of government workers
  - – need for ongoing professional development
  - – State Services Commission push for increased capability

Why Online?

- Traditional forms of workplace training: (i.e. two or three day off-job workshops or seminars)
  - too expensive (loss of worker + cost of travel etc. + cost of training)
  - doesn't provide desired organisational gains
  - short duration training doesn't "stick"
- Delivery over longer timeframe seen as better alternative – promises better outcomes for learners & organisation
- Online provides access regardless of location – reduces cost to employer

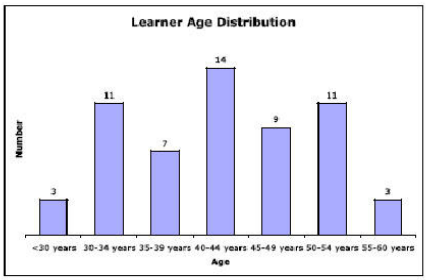
Programme Design

- Mixed-mode eLearning approach taken
- Optional workshops provided in specific locations
- Programme designed not to disadvantage anyone unable to attend a face-2-face workshop
- Cohort focused and time delineated delivery
- Learning and assessment activities situated in the workplace
- Emphasis on asynchronous communication sharing experience & expertise
- Used dramatised scenarios to trigger discussions
- Focus on community of practice model for cross-departmental exchange of views

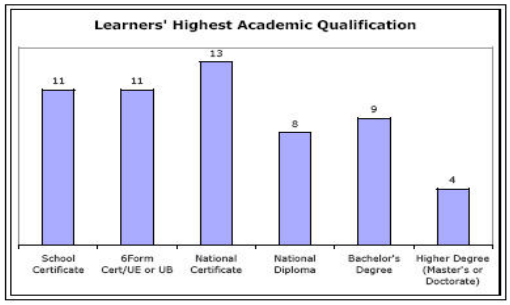
Learner Profile

- Gender 50/50
- Age range between 20 & 55+ with most in 40 – 44 year age band
- Learners from:
  - Corrections
  - Dept Internal Affairs
  - NZ Qualifications Authority
  - Fire Service
  - Local Government
- Only two had done eLearning courses previously

Age Distribution



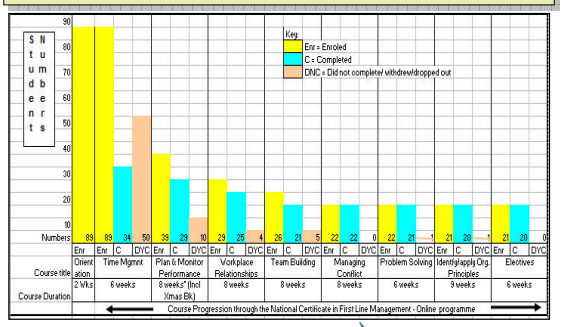
Qualifications



Rate of Attrition

- 90 started 20 completed
- 3 categories for withdrawals:
  - enrolled, but not started
  - started, but stalled early
  - got started, fell behind then quit
- Reasons given:
  - "volunteered" by manager
  - thought it would be variation on workplace assessment
  - own workload too much
  - overwhelmed by technology at the start
  - lack of support from manager/ organisation

Timing of Attrition



Early attrition

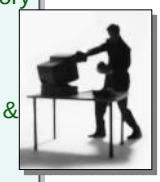
- Simpson (2004), reports that the experience of the UK Open University is that 35% or more of eLearners withdraw before submitting their first assignment (p. 83), which suggests that a learner's initial experience with eLearning may well have a significant impact on a decision to drop out.
- Why should this be so?

Cognitive Load Theory

- Cognitive Load Theory developed by Sweller
- Learning new skill or technically complex material initially uses working memory
- Working memory:
  - is short term
  - is low in storage capacity
  - can only process small amounts of new material at a time
- Learner builds cognitive schema/ mental model in long term memory over time & with experience
- As cognitive schema develops, demand on short term working memory reduced

Cognitive Overload

- Learning new skill or technically demanding new material for which no mental model exists places high demand on short-term working memory i.e. "Cognitive Load"
- Working memory can overload
- Cognitive overload can result in increased anxiety, frustration, stress & loss of confidence
- Results in learning process freezing



Multi-Dimensions of eLearning:

- First time eLearners, particularly mature adults faced with multiple learning tasks:
  1. Negotiating the technology;
  2. Negotiating the course website;
  3. Negotiating the course content
  4. Becoming an eLearner
  5. Negotiating CMC interaction

1. Negotiating the technology:

- eLearner required to come to terms with the computing technologies involved
- Must be competent in using the range of technologies involved in online learning
- Many overestimate own skills in computing
- Underestimate the broader range of skills needed
- Brings learners face to face with the vagaries of computing technology
- Feelings of helplessness when technical support is not immediately available or easily accessed

2. Negotiating the LMS interface:

- eLearner must develop a mental model of content structure & navigation system
- Many don't have experience in 'drilling down' through a deep website
- Prefer to "Google" multiple websites - scan 1- 2 pages then try another
- Site and content structure of an eLearning course often multi-level and deep
- eLearning requires familiarity & understanding of the functionality of the LMS.

3. Negotiating the learning content:

- eLearner must engage with the learning materials, readings, activities and assessments
- First time for many adult learners to undertake formal learning in years
- Can provoke intense feeling of anxiety and apprehension
- Anxiety on becoming a learner again is more likely to relate to thoughts of whether one is capable of learning anything again after a long period without formal learning experience

4. Becoming an eLearner:

- eLearner required to abandon existing mental model of a learner in a formal learning situation
- Most likely to be the model of a teacher led classroom
- Need to embrace a model of self-directed and self-motivated learner
- eLearner isolated, physically from peers & tutor/instructor/professor
- communicating primarily by electronic text

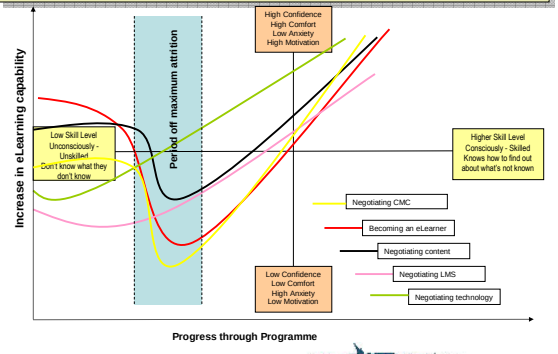
5. Negotiating CMC interaction:

- Interacting with peers/tutor/instructor via synchronous and asynchronous CMC
- Unused to format and conventions of Discussion Forums / Bulletin Boards / Chat
- Communicating via text with others a learner doesn't know – can be intimidating
- "…some are afraid they will embarrass themselves with postings that are not clever, erudite or interesting to others." (Klem, 1998)
- Can become overloaded if learner unable to get online for a time & quantity of discussion forum contributions has grown too fast (Fox,2002)

Conceptual Model

- First-time eLearners start with relatively low levels of understanding of what's involved in terms of online competency demands, skills, relevant knowledge structures and confidence.
- eLearners must deal with relatively high levels of anxiety and discomfort brought about by the lack of certainty with the new and unfamiliar digital environment
- eLearner's initial experience of the steep and multiple learning curves can cause cognitive overload & lead to feelings of being consciously incompetent, unable to cope & overwhelmed
- If discomfort & anxiety sufficiently acute, this can cause some to believe dropping out is only sensible option

eLearning Trajectory



Fostering perseverance & motivation

- If learners can be nursed through initial stages, feelings of competence & mastery over technology rapidly rise
- Once confidence & competence rise, motivation increases & learners begin to enjoy this mode of learning & more likely to stay the course
- Demand for face-2-face workshops decline rapidly
- Exchange of views & experience thru Discussion Board reported as one of the most significant aspects of learning

Strategies for fostering perseverance & motivation

- Provide online orientation module several weeks before first course starts to allow learners to explore
- Provide written handbooks with step-by-step instructions for navigating LMS & course architecture
- Run f2f induction/orientation workshops to introduce technology & LMS – make mandatory!!
- Provide opportunity to practice meaningful DB activities in f2f workshops
- Advise learners of cognitive overload effect & reassure them that it is common, recognised & support will be provided
- Active pre-emptive learner support at this stage vital - follow up on all learners who show signs of struggling

Strategies for fostering perseverance & motivation

- Course design:
  - Aim to reduce early attrition
  - Design for confidence building & development of fluency
  - Simplify/ limit navigation options early on
  - Release content as learners gain mastery with basic skills
  - Make first course short, snappy & relatively low in cognitive demand
  - Increase complexity in content & assessment activities as course progresses
  - Start with slow tempo course schedule & ramp up as skills rise

Questions???