The World of e-Learning Research: an Overview of Current Research

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Agenda
1. Introducción and methodology
2. Survey of research in e-learning:
   - strategies and policies
   - teaching and learning
   - technology
3. Who sets the research agenda?
4. How to improve research in e-learning
5. Conclusiones

Sources
2006 survey of literature on e-learning research from 2003-2005
15 print-only journals + 50 online journals = >2,000 reviewed papers
28 books/major reports/theses with research focus
Google search for keywords
Articles in English/Spanish/French

Methodology
Focus on post-secondary/vocational education (NOT schools)
Many theoretical/analytical papers with no empirical base
So results/conclusions based ONLY on papers with:
- actual experience of e-learning
- qualitative and/OR qualitative data
- analysis/evaluation of data

What is e-learning?
(Bates, 2005; OECD, 2005)

Proporciones actuales de diferentes tipos de e-learning en Norteamérica + Europa

| Proportion of courses using each type of e-learning | 80% |
| sin tecnología en clase | <1% |
| apoyos en clase | <1% |
| labtops en clase | 10% |
| modo mixto | 10% |
| todo a distancia | 10% |
Main focus of research studies by type of e-learning

1. Majority on fully online (distance)
2. Some on ‘blended learning’ meaning classroom aids
3. Very little research on e-learning in vocational education/training (but HALF of all e-learning students)
4. Almost no research on mixed mode (the future?)

Main areas of research

MAIN focus:
1. Policies and strategies: 10%
2. Teaching and learning: 30%
3. Use of technology: 60%

Research into policies and strategies

Very broad category, includes at international/regional/national levels:
• policies/strategies/developments in e-learning, e.g. virtual universities
• longitudinal statistics (funding, enrolments)
• completion rates/drop-out/satisfaction
• national quality standards
• globalization and e-learning

Research into policies and strategies (cont.)

Institutional level:
• strategic planning for e-learning
• identification of best practices
• evaluation of virtual universities
• partnerships/consortia
• costs of e-learning
• business strategies for e-learning
• copyright & IP issues

Research into policies and strategies (cont.)

What is NOT being researched:
• performance indicators for e-learning
• evaluation of government or institutional strategies for e-learning
• cost-benefit analysis of e-learning
• effects of quality assurance processes
• impact of e-learning on workforce

Teaching and learning

Research being done on:
• methods of course design
• quality assurance and best practice
• e-learning and learning outcomes
• synchronous vs asynchronous
• students: digital natives, learning styles
• tutoring/learner support/discussions
Teaching and learning (cont.)

What is NOT being researched:
• blended learning in mixed mode
• role of face-to-face
• best combinations
• types of learners who benefit most
• models of course development
• supporting knowledge construction
• inter-cultural issues in global e-learning

Technologies

Greatest area of research
• Europe: learning objects, personalization
• North America: social networking, Web 2.0 (podcasting, Second Life)
• LMS (integration with admin systems), open source, open content

Problem: research needs to be within educational context

What is NOT being researched

Content management
Impact of Web 2.0 tools on course design/learning outcomes/students
Role of animations/simulations
Costs: LMS, social networking, learning objects, simulations
Business models/cost-benefit analysis of new technologies

Features of the research

1. Few large research programs in e-learning: individuals working in isolation
2. Separate worlds: educators vs computer scientists; on-campus professors vs distance educators
3. Poor quality: single cases, personal reflection, inadequate knowledge of the field

Features of the research

4. In teaching/learning, lack of
• quantitative studies
• large samples
• convincing results
5. Focus on narrow range of issues: drop-out; constructivist learning; learning objects; technology standards; university teaching

What sets research agenda?

1. Funding
• Europe: European Commission; lots of problems
• national research councils: e-learning interdisciplinary; lack of earmarked funds
2. Traditional academics vs students: difficulty in finding supervisors; lack of good program proposals
What sets research agenda? (cont.)

3. Personal interests of individual academics
4. Governments: sometimes create earmarked funds for innovation, but don’t really understand e-learning
5. Private sector: EnCana, Cisco, IBM, Gates Foundation, Hewlett

How can research in e-learning be improved?

Structural:
1. Establish educational technology as an inter-disciplinary department in universities: home for Ph.D. students
2. National research councils/government to give higher priority to research in educational technology
3. Inter-university research groups
4. Partnership with businesses/industry

How can research in e-learning be improved? (cont.)

Academic:
1. More research into e-learning in schools/vocational education
2. More emphasis on large-scale, quantitative research (e.g. surveys)
3. Develop on-going programs of research
4. Inter-disciplinary teams: academics, instructional designers, Web specialists

How can research in e-learning be improved? (cont.)

Academic:
5. More focus on strategies/policies, less on technology per se
6. More focus on theory-building, best practices, based on empirical data
7. Ph.D. students to work on on-going research programs, not in isolation
8. Better academic time management (projects, deadlines, research time)

Conclusiones

1. E-learning research to date is poor - very little influence on practice
2. Many areas of e-learning not being researched
3. Lack of innovation in blended learning, use of Web 2.0
4. Much to be learned from research in distance education

Problems:
- funding
- lack of large-scale, on-going projects
- lack of academics with inter-disciplinary (education + technology)/research qualifications

Is e-learning a useful term for research purposes?
Conclusiones (cont.)

- MTA is well positioned: area devoted to e-learning; SUV as partner; masters and Ph.D.
- But: research plan essential to ensure funding, appropriate staff, projects, and quality research