Research on Mobile Learning

Dr. Mohamed Ally
Learning Outcome

• Describe recent research in mobile learning.
Sample Mobile Learning Research Initiatives

- ESL training for workers
- Use of mobile devices by older adults
- Learners use of mobile devices in forming community of practice in distance education
- Mobile technology in libraries
- State of mobile learning in Canada
- Mobile learning in the workplace
- Mobile Technology to deliver Physician Assistant training
- Mobile access of health information system
Research Purpose (Wu et al., 2012)

- Evaluating the effects of mobile learning: 58%
- Designing a mobile learning system for learning: 32%
- Investigating the affective domain during mobile learning: 5%
- Evaluating the influence of learner characteristics in mobile learning: 5%
Distribution of Research Outcomes
(Wu et al., 2012)
Benefits of Mobile Learning

Klopfer & Squire (2008)

• Portability – learners can take the technology to different sites and move around within a location.
• Social interactivity – learners can exchange data and collaborate with other learners and the teachers.
• Context sensitivity – can gather data unique to the current location, environment, and time, including both real and simulated data.
• Connectivity – can connect mobile technology to other devices and to a common network that creates a true shared environment.
• Individuality – can provide unique scaffolding that is customized to the individual’s interest.
State of Mobile Learning in Canada and Future Directions

Mohamed Ally, Ph.D.
Professor
Athabasca University
mohamedama@athabascau.ca

Agnieszka Palalas
Athabasca University
apalalas@athabascau.ca
Canadian Provinces and Territories Surveyed

- British Columbia: 17
- Alberta: 14
- Saskatchewan: 1
- Manitoba: 1
- Ontario: 66
- Quebec: 4
- Nova Scotia: 0
- New Brunswick: 2
- Newfoundland & Labrador: 1
- PEI: 1
- Yukon: 1
- Northwest Territories: 0
- Nunavut: 0
- Multiple locations: 4
How Innovative are Canadian Organizations in Mobile Learning?

- Innovators: 41%
- Early adopters: 22%
- Early majority: 25%
- Late majority: 5%
- Laggards: 7%
Recommendations for Canada

- A **national agency should be established** or an existing agency should be used to coordinated mobile learning activities across Canada so that mobile learning developers, researchers, and mobile device manufacturers share best practices and research results.

- **Develop standards for mobile learning** so that learning materials can be developed and shared between organizations.

- Include mobile learning as a stream in the **Tri-council research grant programs**.

- Develop **training programs** specializing in mobile learning.
Recommendations for Organizations

• Integrate mobile learning in strategic, business, and educational plans.
• *Create partnerships* between industries and educational institutions to collaborate on the mobile learning research and the development of learning materials.
• Develop a *research agenda for mobile learning*.
• *Publish research studies* so that all Canadians can have access to the results of the studies.
Research Needed

• Most effective interfaces for mobile and virtual devices
• Learning style of different cultures and mobile learning
• What are the characteristics of mobile technology for different cultures?
• Interactivity on mobile devices
• How to design and deliver multimedia materials for mobile learning?
Research Needed cont’d

• How to deliver learning materials to meet the needs of the nomadic learner who is always on the move?
• How to deliver vocational training in a mobile world?
• How to design content for the different age groups?
• What are the characteristics of the next generation of mobile technology for learning?
More research on mobile learning is needed to allow teachers to implement mobile learning successfully.