S6: So you ran your course ...

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Evaluation challenges

- Anxiety about new models of medical education - using new technologies amplifies it
- Usability, accessibility of materials and learning environment often overlooked in mainstream evaluation practice
- Technology-mediated activities do not yield the same opportunities for informal evaluation and feedback that traditional forms do
- TEL can generate much more data (and different kinds of data) than can generated by traditional approaches
- Evaluating technologies, activities that use technology, or the use of technology in activities?

Approaches to ID: ADDIE

What do you want to know?

- Efficacy - Kirkpatrick levels:
  - Reaction – happy sheets
  - Learning: increase in knowledge and/or skills, change in attitudes.
  - Behavior - transfer of knowledge, skills, and/or attitudes from training to practice
  - System-level change – patient outcomes, learning outcomes
- Effectiveness – economics, ecologies

Evaluation activities

1. Needs analysis and environmental scan
2. Documentation: processes, decisions, and final product
3. Usability testing
4. Observation of implementation
5. Participant experience and satisfaction
6. Learning outcomes
7. Cost, reusability, and sustainability

Evaluation might include:
- needs analyses
- documentation of processes, decisions, and final product
- usability testing
- observation of implementation
- assessment of participant experience
- Assessment of learning outcomes
- evaluation of cost, reusability, and sustainability

So, who is the intended audience?
What is the audience likely to do with the information?

Minimal evaluation

- Who is the intended audience for the evaluation?
- What will they do with this information?
- Evaluation ingredients:
  - Usability testing
  - Document key elements of the final product (operations, activities)
  - Capture the perceptions of both students and instructors
  - Assess Kirkpatrick Level 2 outcomes (knowledge, skills, attitudes)

What do you do with it?

1. Identify problem or issue
2. Set criteria & standards
3. Observe practice / data collection
4. Compare performance with criteria & standards
5. Implementing change

Educational analytics

- Educational data – learner profiles and trajectories, benchmarks and program requirements, support options
- Activity data – who did what when
- Used for individual learner support and guidance
- Used to improve tutor awareness of learners’ activity
- Used for class, school, institutional reporting and planning

YouTube Analytics


Analytics

- Logfiles – what events are recorded?
- Computer trackable events
- Google Analytics
- What you get …
- What you give …

Analytics

- Analytics cf evaluation
  - pattern recognition
  - ambient tracking
- Analytics tell you what people did
- Analytics based on what the machines see …
- Time on page = study, snooze or snacks?
- Analytics don’t tell you why they did it
- Still need to ask people the why …
... and why activity is critical

- How are activities encoded/represented in analytics?
- Does a click = learning?
- Current models based on access, view time, completion
- No sense of what was happening outside of the machine
- We know learners game online learning to satisfy analytics
- What is useful, what is real?

ACTIVITY 4

How will you know what happened?

ACTIVITY 5

Usability testing

Laptops: https://www.nobelprize.org/educational/medicine/bloodtypinggame/

iPad: http://www.learningnurse.org/index.php/assessment/games