S3.2: Principles of instructional design
#2 Activities

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Activity perspectives

• e-learning — what the learner does, chooses
  – Learner selection of tools — devices, apps
  – How learners use them and who they do it with
  – The learning outcomes
• e-teaching — what the teacher does, chooses
  – Teacher selection of tools — what they’re given
  – How teachers use them
  – The teaching objectives
• Activity focus rather than artifacts

From an activity POV

• Learning as doing, participating
• Technology part of broader educational ecologies
• Linked to educational activities but not necessarily bound 1-1
• Technology in an activity context
  – Alignment
  – Sequencing
  – Scaffolding

Activity levels

Instructional Designers
encoded activities
multimedia design

learning resources

how the resources are used

what the resources represent

the educational system
teaching and learning
constructed activities
Teachers

symbolic activities
Managers

Technology in educational activities

Technology in educational activities

Mediation
how technology supports the activity as a whole

Objectives
Alignment to program, outcomes

Actions
what teachers and learners do as part of the activity

Operations
clicks, typing, taps needed to run the technology

Context
Participants, culture, community, rules

Activity systems

mediating artifacts

subject [teacher]
object [medical student]
outcome [trained doctor]

rules community division of labour

teacher-centric activity system

Activity systems

mediating artifacts

subject [medical student]
object [medical education]
outcome [trained doctor]

rules community division of labour

learner-centric activity system

Activity systems


Blended learning

f2f

self-paced

collaborative

Blended learning
Blended learning

Activity typologies

Horton’s typology:
- Absorb-type activities
  - Presentations, storytelling, readings, tours
- Do-type activities
  - Practice, discovery, games and simulations
- Connect-type activities
  - Ponder, job aids, research, original work
- Tests
  - Quizzes, assessments, competency/mastery monitors


Patterns, repertoires

- Activities as patterns
- Recipes or repertoire
- Patterns as accountability, as scholarship
- Explicit, deliberate, collaborative
- Patterns of activities, patterns of technology use in activities

Teaching mediating learning activities

<table>
<thead>
<tr>
<th>Type</th>
<th>Examples</th>
<th>Technologies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content activities</td>
<td>Read, explore, reflect, remember, synthesize</td>
<td>eBooks, knowledgebases, notes, mindmaps, p-brains</td>
</tr>
<tr>
<td>Social activities</td>
<td>Discuss, collaborate, observe others, reflect on own ability</td>
<td>discussion boards, Twitter, blogs, wikis, social media</td>
</tr>
<tr>
<td>Test activities</td>
<td>Challenge, perform, assess, evaluate, provide feedback</td>
<td>quizzes, test banks, virtual patients, games</td>
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<tr>
<td>Collection activities</td>
<td>logging, tracking progression over time, professional development</td>
<td>encounter logging, portfolios, CVs, online profiles</td>
</tr>
<tr>
<td>Practice activities</td>
<td>Simulation, and prepare, medium as message</td>
<td>Virtual patients, e-mannequins, virtual task trainers,</td>
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</tbody>
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Activity example: Scenario-based learning

"scenario-based e-learning is a preplanned guided inductive learning environment designed to accelerate expertise in which the learner assumes the role of an actor responding to a work-realistic assignment or challenge, which in turn responds to reflect the choices"  

(Colvin Clark, 2013:p5)

Learning as transaction

Mediation: Scaffolding

• How much of a teacher presence is there?
• What is the teaching role in or around the technology?
• Helping, guiding, explaining, modeling
• Mentoring, giving feedback, making suggestions
• Testing, evaluating, judging
• How responsive is the technology to individual student needs?
Scaffolding and complexity over time

<table>
<thead>
<tr>
<th>Basic knowledge</th>
<th>Individual skills</th>
<th>Aggregate skills</th>
<th>Skills with practice tools</th>
<th>Skills with people</th>
<th>Full practice</th>
</tr>
</thead>
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Approaches to ID: ADDIE

Activity 2: Design a web-based course
See coursebook

Small group activity …