Making learning visible: learning analytics, 21 century skills and MOOCs

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• The French Revolution
• Epigenetic Control of Gene Expression
• Assessment and Teaching of 21Century Skills ATC21S
• Animal Behaviour
• Principals of Macro Economics (62K)
• Generating the Wealth of Nations
• Discrete Optimisation
• Climate Change
• Logic: Language and Information 1 & 2
• Exercise Physiology: Understanding the Athlete Within
• Targeted teaching and assessment practices of teachers
• **Vn 1**: 18k registrants; 170 countries; 55% female, 93% with higher ed. quals; 11% with PhDs; Age median: 35 yrs; 9% of visitors certificated; high usage of forums, ‘sticky’, good income generator
• **Vn2**: very similar, smaller, just finishing
• define the learning competency: called ‘knowing how to crowdsource higher order learning’
• Includes knowledge, understandings, skills, beliefs, attitudes, values about learning
• levels from novice to expert
• assessed and made visible using coded log-stream data
Progression: capacity to generate higher order learning in MOOCs

- Novice
- Nature of knowledge
- Purposes of forums
- Crowd-source/collaborate
- Purpose of assessment
- Calibration skill
- Civic orientation

- Expert
Success in the MOOC vs C-SL score: all forum users

- Novice: 90% Distinction, 10% No Pass
- Beginner: 90% Distinction, 10% No Pass
- Proficient: 80% Distinction, 20% No Pass
- Competent: 50% Distinction, 50% No Pass
- Expert: 30% Distinction, 70% No Pass
The Developmental Progression for the Crowd-Sourced Learning Capability, novice to expert

www.crowdsourcedlearning.org
X increasing quality and range of videos
X using only high-reliability tasks for certification and grading
X increasing ‘teacher-presence’ in class
X supporting the habits of the ‘teacher-dependent’ learner
X using ‘blended’ as a compromise to fix second-rate digital offering
Teaching as design

✓ Curriculum presentation via Progress Maps
  • domain expertise (not cognitive objectives) as scaffold for teaching and assessment

✓ ‘New assessment’ approach.. (always wanted to….)
  • make learning visible
  • multi-evidenced, argument-based
  • assessing development of domain expertise, not taught content
  • built around self, peer and machine assessment
  • Including built-in ambiguity, requiring professional judgment
  • analytics supported
  • chunked for mini-certification

✓ Develop learning competencies of learners by teaching
  • self- and peer-calibration and evaluation skills
  • using collaboration/conversation/crowdsourcing for learning
  • understanding of epistemological and learning assumptions
Collaborative work to engineer a course

curriculum designers
script writers
content experts for narrative
presenters
forum moderators
learning designers
assessment designers
software engineers
production (video, audio)
graphic designers
????artist
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For participants doing all assessments

Success in the MOOC Vs. C-SL Capability

- Distinction
- Pass
- No Pass

Novice  | Beginner  | Proficient | Competent | Expert