



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

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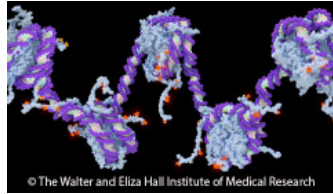
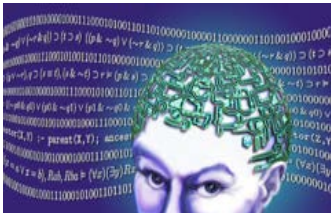
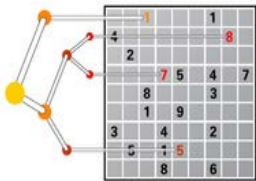
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SOME MU MOOCs 2014



- 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

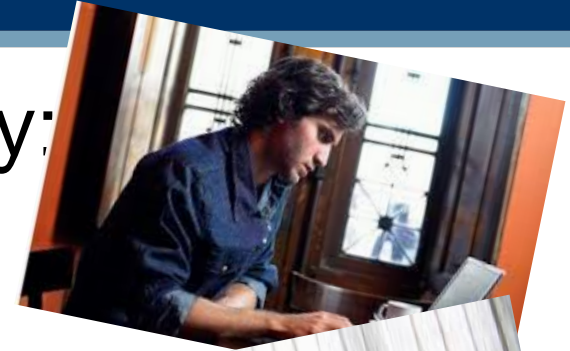


- Targeted teaching and assessment practices of teachers
- **Vn 1:** 18k registrants; 170 countries; 55% female, 93% with higher ed. quals; 11% with PhDs; Age median: 35 yrs; 9% of visitors certificated; high usage of forums, 'sticky', good income generator
- **Vn2:** very similar, smaller, just finishing





- define the learning competency: called ‘knowing how to crowd-source 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



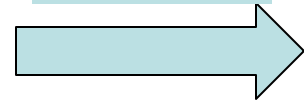


Novice

Expert



Nature of knowledge



Purposes of forums



Crowd-source/collaborate



Purpose of assessment



Calibration skill

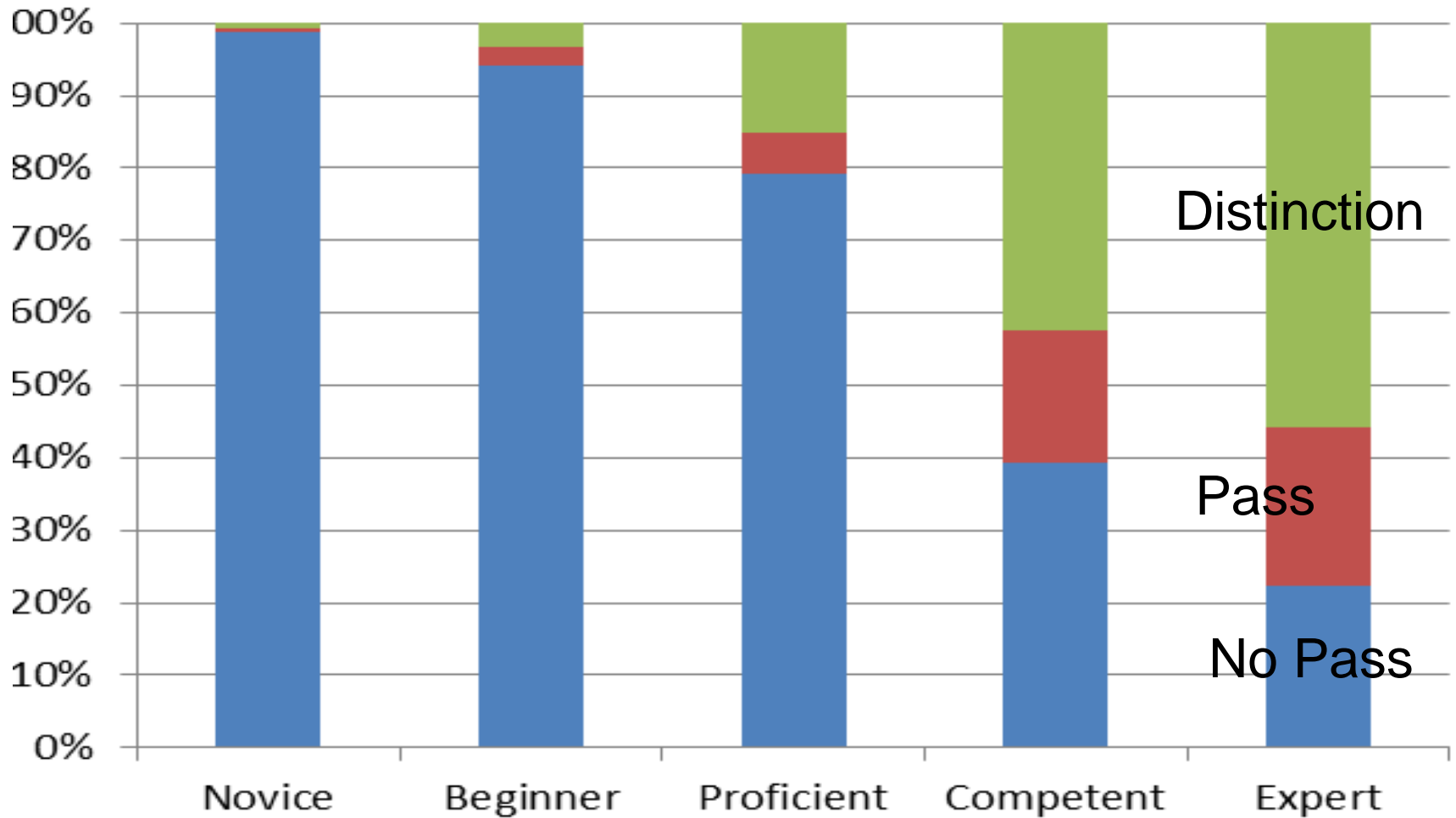


Civic orientation





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





The Developmental Progression for the Crowd-Sourced Learning Capability, novice to expert

www.crowdsourcedlearning.org

Theoretical framework for a three-strand capability 'how to crowd-sourcing higher learning'



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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



- ✓ 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



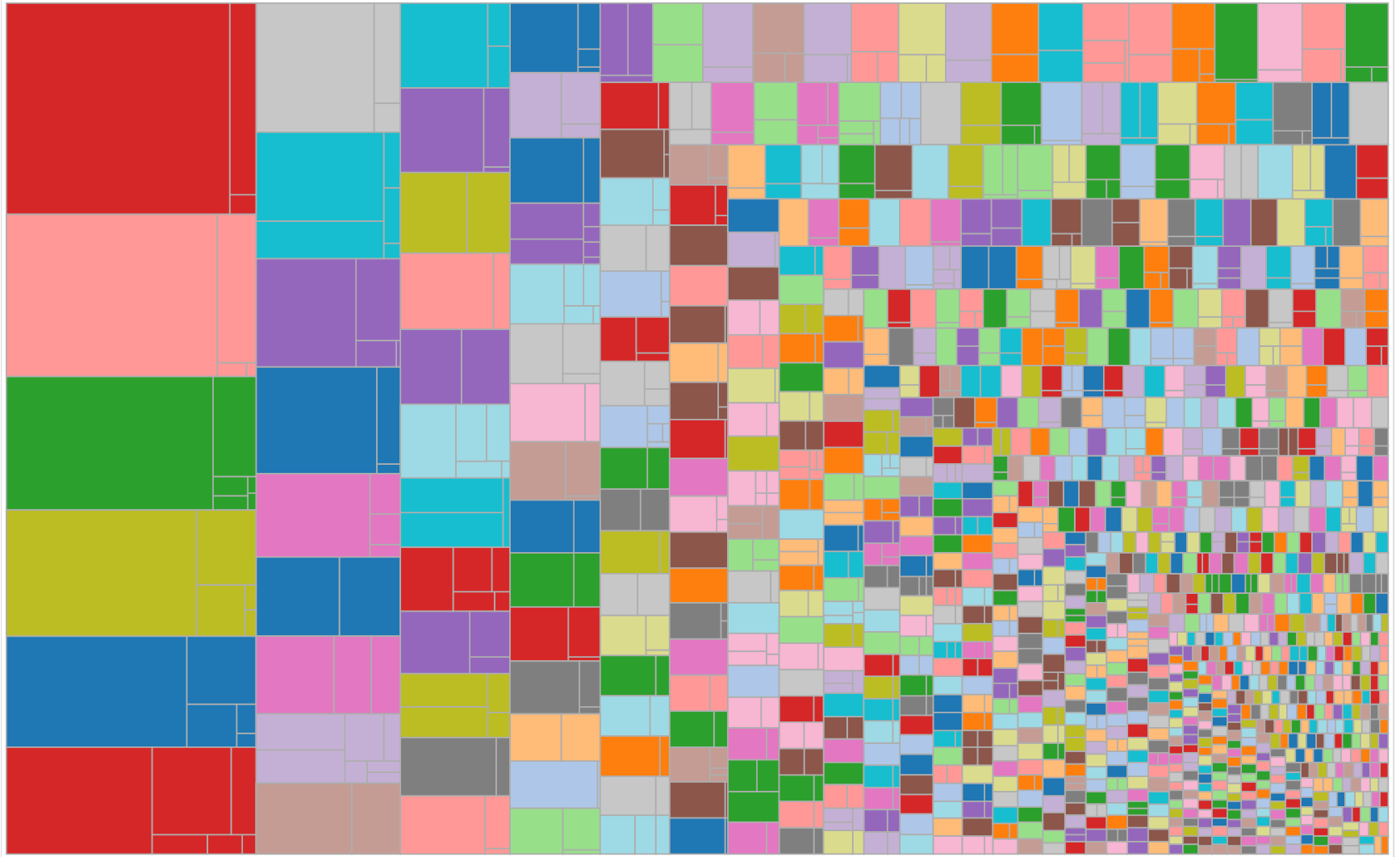
Collaborative work to engineer a course

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





Learning analytics art prize





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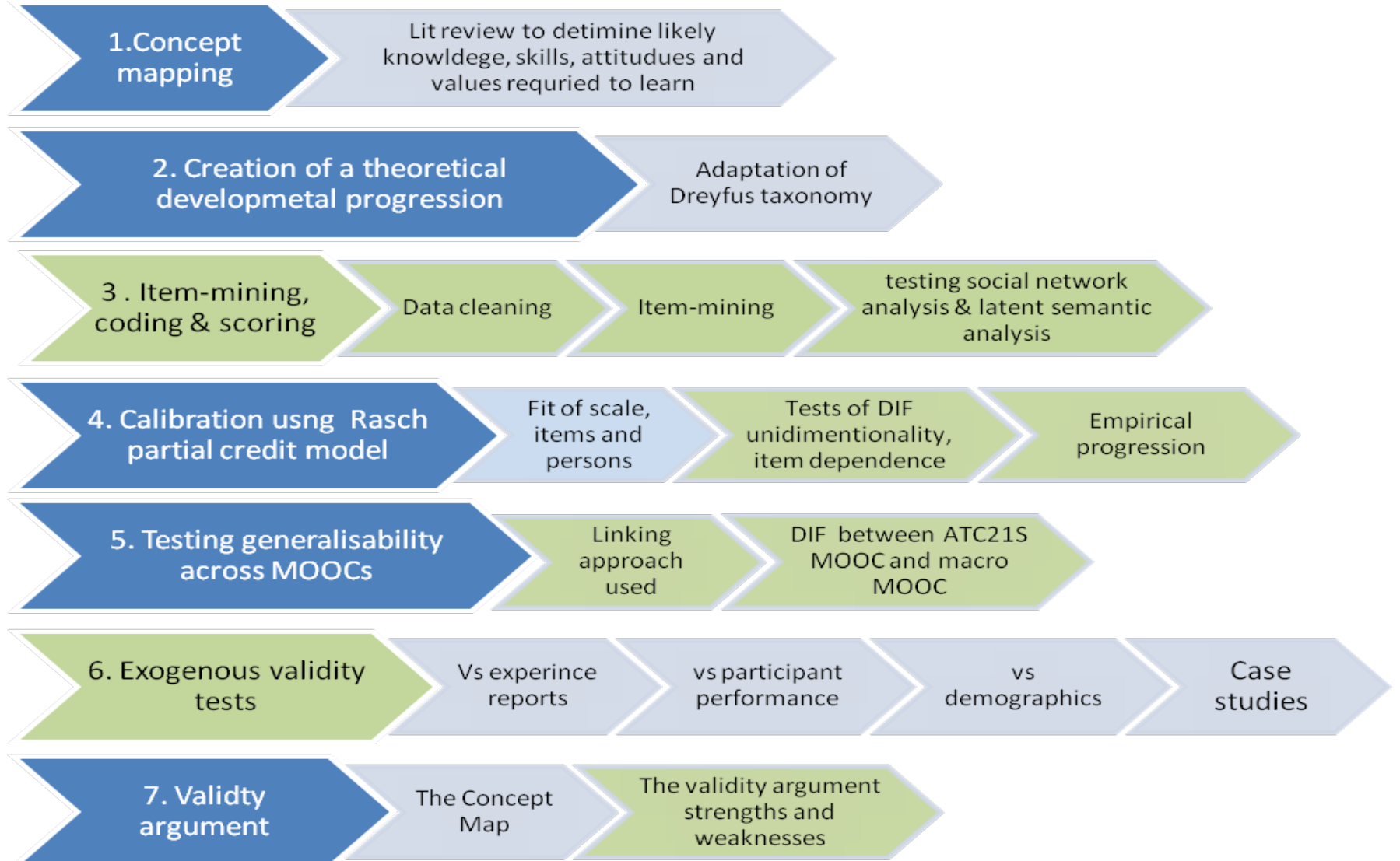
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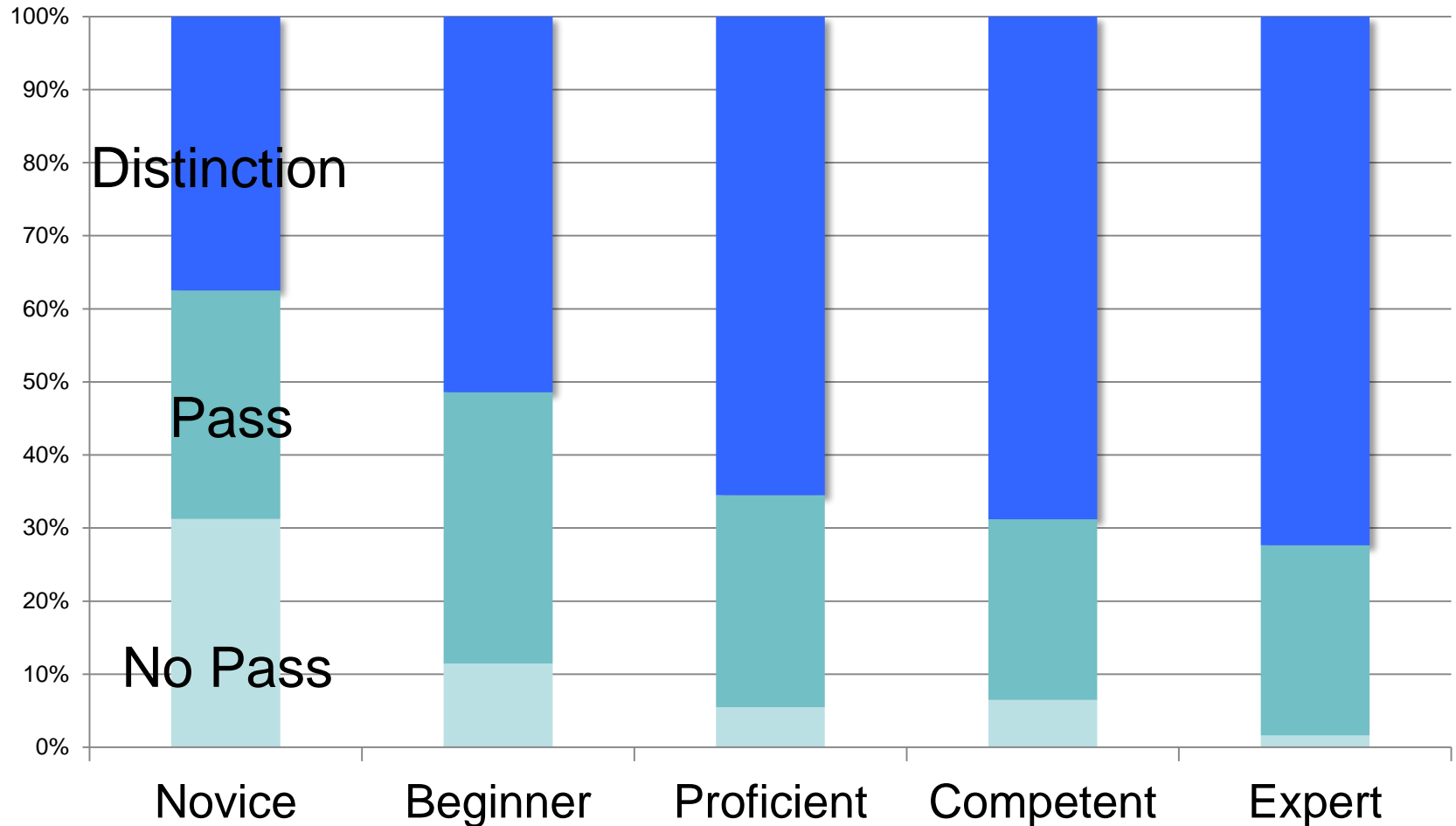
THE UNIVERSITY OF

MELBOURNE





Success in the MOOC Vs. C-SL Capability





ATC21SMOOC

MacroMOOC

