

Teacher Education MOOCs for Developing World Contexts: Issues and Design

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THE PROBLEM

Massive Shortage of Teachers
Worldwide

2.6 Million Additional teachers needed by 2015
UNESCO Bureau of Statistics (2006)

Acute in Developing World
Contexts

ONE POSSIBLE SOLUTION

Distance-Oriented Educational
Technologies

Latest Generation of these are MOOCs

So how can these be designed?

ISSUES & CONSIDERATIONS

Pedagogical Affordances	Instructional Appropriateness	Technological Affordances
<p>Acquisition of</p> <ul style="list-style-type: none"> ● Domain knowledge and skills ● Instructional activities knowledge and skills ● Reflections ● Social interactions 	<p>Initial Training</p> <ul style="list-style-type: none"> ● Pre-service teachers ● In-service teachers <hr/> <p>Professional Development</p> <ul style="list-style-type: none"> ● Qualification upgrading ● Reorientation education ● Career development 	<ul style="list-style-type: none"> ● Needs of the learner ● Technological Infrastructure ● E-learning readiness skills

PEDAGOGICAL AFFORDANCES

MOOCs must have features that:

Facilitate the Acquisition of:	Provide Opportunities for Reflection on:	Provide Social Interaction and Knowledge Exchange between:
<p>Domain knowledge and skills e.g. English, History, Science, Math, etc.</p>	<ul style="list-style-type: none"> ● Domain knowledge and skills ● Designed instructional activities ● In-the-field teaching practice experiences 	<p>Teachers and</p> <ul style="list-style-type: none"> ● their peers ● teacher educators ● practicing teacher-mentors ● other experienced teachers
<p>Instructional activities knowledge and skills e.g. Lesson plans, assessment instruments, in-class activities, etc.</p>		

INSTRUCTIONAL APPROPRIATENESS

MOOCs must facilitate the instruction, learning, and assessment of different aspects of teacher education.

Instructional Content	Domain Knowledge	1. Domain Skills 2. Instructional activities design and skills	Professional Development
Instructional Strategies	<ul style="list-style-type: none"> ● Presentations via video, audio, text ● Structured discussions ● Automated Assessment <ul style="list-style-type: none"> ○ multiple-choice ○ quizzes ○ fill-in-the-blank ○ etc. 	<ul style="list-style-type: none"> ● Peer reviews - finely-tuned peer pairing of advanced peer teachers and trainee teachers ● Reviews by teacher-educator mentors ● Structured discussions ● Explicit formative and summative assessment criteria (rubrics) 	<ul style="list-style-type: none"> ● Peer reviews ● Semi-structured discussions ● Open-ended discussions ● Community of Practice: <ul style="list-style-type: none"> ○ teachers ○ advanced peer teachers ○ teacher educator mentors ○ other relevant and interested persons

TECHNOLOGICAL AFFORDANCES

MOOCs must take into account the:

Needs of the Teacher	Infrastructure in the Teacher's Locale	e-Learning Readiness Skills of the Teacher
<ul style="list-style-type: none">● What types of knowledge and skills does the teacher require?● How efficiently and effectively can the MOOC tools and components afford these?	<p>To participate effectively in an MOOC the teacher must have:</p> <ul style="list-style-type: none">● Access to a computer (desktop, laptop, tablet, smart phone)● Web browsing and other required software● Internet connection with reasonable upload and download speeds	<p>Teachers must be:</p> <ul style="list-style-type: none">● skilled in the use of communication and collaborative technologies● have basic computer operating skills● have an understanding and appreciation for collaborative learning● have self-directed learning skills

OTHER PERTINENT ISSUES

- Entry Requirements - Tradeoffs of too much Openness
- Accreditation
- Quality Assurance
- Business Model (Sustainability)
 - Can a teacher education MOOC be really free?
 - Can a free teacher education MOOC be really sustainable?)

SELECTED REFERENCES

THANK YOU

Questions