Exploring learners' motivations on Assessment in a Massive Open Online Course: A case study

Pilot Study Plan

PhD Research Student: Tina Papathoma

Supervisors: Canan Blake, Doug Clow, Eileen Scanlon

Outline of this presentation

- PhD Timeline
- Research Background
- Research Question, Rationale & Objectives
- Methodology
- Pilot Study
- Theoretical Framework
- Pilot interviews

PhD Timeline for 2015

Research	Literature Review (on-going)	May 2015
	Run Pilot Study – Data Collection	May 2015
	Write a probationary Report	June 2015
	Develop Research Plan – Main Study	June 2015
	Data Analysis	August 2015
Dissemination and networking	-Give a presentation at Banff -Participate in the OU Poster Competition	April 2015 June 2015
Attendance at Conferences	-Submitted a poster paper in EC-TEL conference -Submit a paper in EC-TEL Doctoral consortium	April 2015 May 2015

Background

- BA Philosophy & Education, Aristotle University, *Thessaloniki*, Greece

- MSc Education, Technology & Society, University of Bristol, *Bristol*, UK

- Master of Research Methods **(MRes)** in Educational Technology, The Open University, *Milton Keynes*, UK

<u>MRes study</u> : "Investigating learners' views of assessment types in Massive Open Online Courses (MOOCs)"-

Qualitative study

Learners' views of assessment types in MOOCs and how effective they feel each assessment type is in their learning

Context : Behavioural Economics MOOC

(video lectures, automated quizzes, peer-assessed writing assignments, self-assessment & final exam)

Methodology : Online Ethnographic Approach

Methods :

o **Observations** →online interactions in a MOOC Facebook Group

o **Online interviews** → learners in the same MOOC

Background
Sample of the MRes Study

Participant identifier (pseudonym)	Age Range	Country of origin	Higher Education Qualifications	Level of Experience – number of courses completed	Courses Enrolled and Dropped out
Filippos	20-30	India	MBA	High/10	None
Orestis	20-30	Brazil	BA	High/14	None
Aris	51+	Canada	MA	High/20	None
Danae	31-40	Australia	MA	Moderate /4	None
Maya	20-30	Greece	MA	Moderate/3	2
Dionysus	31-40	Russia	MA	Moderate/ 3	None
Niobe	20-30	Greece	MA	Limited/2	Several in the past before completing these 2
Antigone	31-40	Venezuela	MA	Limited/2	None
Elpi	51+	US	MA	Limited/1	None
Melpo	51+	Denmark	BA	Limited/1	None
Calypso	20-30	US	BA	Limited/1	Several in the past
Hermes	20-30	Colombia	BA	Limited/2	None

Background
Sample of the MRes Study

- 12 interviews
- 13 post discussions observed

This Sample was not necessarily representative but themes and issues were investigated and may be explored in more detail later.

Background

Analysis of the MRes Study

Thematic analysis (Braun & Clarke 2006)

Some of the **themes** from the interviews and observations that captured data in relation to the research questions are:

- Assessment **value**
- **Types** of assessment
  - **Automated** Assessment
  - **Peer** Assessment
  - **Self**-Assessment
- Assessment **preference**
- Peer Assessment **Issues**

Background - **Findings of the MRes Study**

The majority of the interviewees made statements indicating that **'assessment drives their learning'**(Rowntree 1987) e.g.

"many of the questions were softball at the beginning so people weren't discouraged & then got progressively more difficult. this gave people a feeling of both success & accomplishment, which was very clever". (**Elpi**)

- **Automated methods**
  - test memory & knowledge
  - give the opportunity to revise & see answers
  - give a feeling of accomplishment
  - crystallize what they learned
- **Peer assessment methods**
  - expose them to others' ideas
  - are a way to understand concepts more deeply
  - are time consuming, unfair or there is a language barrier
- **Self assessment methods**
  - assist to the improvement of their own work & contribute to the enhancement of their learning experience

Background

Findings of the MRes Study

Overall :

- **Automated assessment** → preferred as an already-known type
- **Peer assessment** → participants identified benefits
- **Self-assessment** → not preferred by participants

Participants also reported that :

- **clear guidance** assists to carry out peer assessment more effectively
- **combination of assessment types** serves a different purpose for their learning

Background

Findings of the MRes Study

Unexpected Theme: The **socio-cultural influences of assessment** on learners' views. E.g.

"(I prefer)..papers marked by the professor and his assistants because they are the experts and their feedback has more weight as they know the material better and they are also experienced as they have seen tons of other papers" (Niobe)

It can be inferred that :

- Educational systems in different countries have specific norms or conventions that are used in teaching and learning environments
- Assessment may elicit different responses and should be considered in the context of the global offer of MOOCs
- When designing assessment in MOOCs it is important to also take into account **the cultural differences of the students**

Background
Literature **of the MRes Study**

- '**Assessment drives learning and is a motivation for students in order to encourage them to learn**. Feedback given to students shows them how they performed on assessment exercises and is meant to help them learn' (Rowntree 1987)

- The **theoretical developments** that will assist in taking the **assessment agenda** forward is the **socio- cultural perspective** of learning (Whitelock 2010)

- **Online Communities framework** (Preece 2000)

- **Student-content interaction** (Anderson 2003)

Background
Limitations of the MRes Study

- Small sample & amount of data
- Methodology of online ethnographic approach – **not with the traditional sense -** time constrains & permissions & carrying out data collection
- Students were not actively studying the course during data collection so the sample consisted of people with a strong interest in the course and also completed it

Hint *for next study: approaching learners during a course **and** at the end so that I get different views, also more chances to get less enthusiastic learners*

Background
Further Research after the MRes Study

- How other assessment methods can offer further knowledge for enhancing the learning experience

- How the different types of assessment may be combined in the same course to assess student learning

- How student-content interaction can be supported

Building on my MRes study, I came up with many questions..

- **Indecisive** about investigating the *cultural differences of learners* regarding their views of assessment **or** focus on *what ways assessment drives learning*

- Can we argue that the way 'assessment drives learning' might be different in MOOCs? E.g. Jordan's Study (2014) on Initial Trends on Enrolment and Completion of MOOCs, has shown that the majority of courses that were investigated have been found to have completion rates of **less than 10%**

- Is it possible that some learners are demotivated by assessment? (Because I am! ☹)

Possible Areas for further investigation

- Are learners driven from their desire to gain a qualification (certificate) or are they motivated by other reasons (to learn something they will be able to apply to their job-practice, out of interest or..)?

- If a learner's goal is not to gain a certificate who does assessment benefit?

- What are the learners' motivations for studying a course and how this affects their view of the assessment?

Research question (RQ) & Rationale

RQ : To what extent do common **assessment methods** *reflect* **learners' goals** in MOOCs?

Rationale: the common assessment methods used in MOOCs may not match learners' goals if they do not complete the courses (low completion rates)

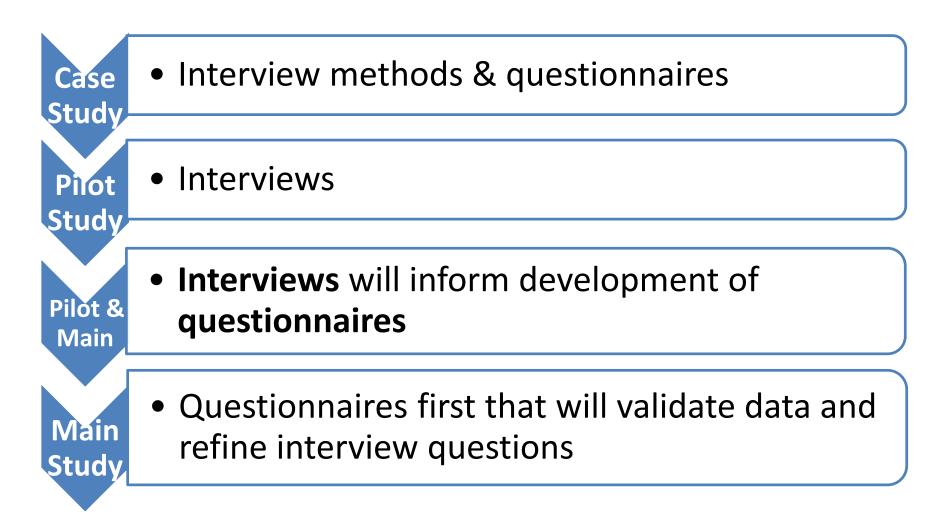**RQ: To what extent do common assessment methods reflect learners' goals in MOOCs?**

- common assessment methods (Bates 2015):
  - computer marked assessments (multiple choice questions)
  - peer review
- learners' goals in MOOCs. What are **the goals** that **motivate** their learning?
  - Certificate
  - Career development
  - Need to put the theory in practice
  - Interest, learn per se or..?

Objectives of the Study

- To identify the relationship between the current assessment processes and the learners' goals towards them by discussing with them so as to get an insight of their perceptions with regards to assessment

- Possibly the findings will assist MOOC designers and educators to adapt assessment to learners' goals (& needs)

*'To evaluate assessment in MOOCs requires an examination of the **intent behind assessment'***

(Bates 2015)

Methodology

Case Study
- Interview methods & questionnaires

Pilot Study
- Interviews

Pilot & Main
- **Interviews** will inform development of **questionnaires**

Main Study
- Questionnaires first that will validate data and refine interview questions

Pilot Study

Context :

- A course that consists of Common Assessment Types (computer marked assessments & peer review)
- Having an interest in professional learning, possibly finding a course that may attract professionals of a particular area (i.e. Health domain, Business etc.) & investigate how they are motivated by assessment in MOOCs.

What needs to be done:

-Access to learners of this course (in progress)

-Ethical Approval from the Open University's Ethical Committee (was given)

The **pilot** study will enable me to trial the methods of interviewing and explore the relevance of the literature in this case

For the **main study** I will investigate more courses in different contexts-subjects and replicate the same methods

Plus : Educators and how they can adapt assessment in learners' goals

Theoretical Framework

Research on demographics of MOOC learners shows that they:

- Have a bachelor's degree or above (Ho et al. 2014)
- Are already well-educated and **employed** (Christensen et al. 2013; Hollands & Tirthali 2014)

For this reason I intend to base the research study of assessment in the MOOCs context on ideas from **'Professional Expertise Development'** literature and particularly on the model of **'integrative pedagogy'**

'Education – and especially higher education – has come under increasing criticism, frequently being blamed for a situation in which graduates are insufficiently able to apply their knowledge to solve complex problems in a working context'(Tynjälä & Gijbels 2012)

Theoretical Framework

The model of Integrative Pedagogy intends to bring together the key elements of learning and the development of expertise (Tynjälä & Gijbels 2012). Professional expertise consists of four basic **elements** which are tightly integrated with each other:

1. Theoretical knowledge
2. Practical knowledge
3. Regulative knowledge
4. Sociocultural knowledge

Theoretical Framework

Integrating knowledge from professional expertise to MOOCs that involve higher education courses may assist in getting a better insight on how people need to learn in order to be well-prepared to adapt to a working context.

The idea of the 'Integrative Pedagogy' can be applied in many different ways in higher education (Tynjälä & Gijbels 2012)

and possibly in MOOCs?

Theoretical Framework

MOOCs: Disruptive or not?

MOOCs are indeed innovative in some elements

- Massive scale, open & free for participants(Bates 2015), no prerequisite qualifications

However, many elements of MOOCs follow cultural and organisational norms of education that would not identify them as disruptive

- Their design is broadly based on conventional teaching and learning goals(Vale & Littlejohn 2013) *(i.e. Assessment)*

The assessment methods used in MOOCs are largely based on traditional models of computer marked assessments (multiple choice questions) and peer review (learners assessing other learners)

Pilot Interviews

Questions will include :

- Demographic information
- Context
- Goals & Motivations
- Assessment Process
- Quizzes & Peer Marked Assignments
- Motivation for hypothetical scenarios of not so common assessment techniques
- Support

Can we actually rethink Assessment in MOOCs?

References :

- Anderson, T. (2003). Getting the Mix Right Again: An Updated and Theoretical Rationale for Interaction. *The International Review of Research in Open and Distance Learning, 4 (2)*

- Bates, T., 2015. *Teaching in a Digital Age | The Open Textbook Project provides flexible and affordable access to higher education resources*, Available at: http://opentextbc.ca/teachinginadigitalage/ [Accessed April 12, 2015].

- Braun V. & Clarke, V., (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3 (2), 77-101. ISSN 1478-0887*

- Christensen, G. et al., 2013. The MOOC Phenomenon : Who Takes Massive Open Online Courses and Why ? , pp.1–14. Available at: http://dx.doi.org/10.2139/ssrn.2350964.

- Ho, A.D. et al., 2014. HarvardX and MITx: The First Year of Open Online Courses, Fall 2012-Summer 2013. *SSRN Electronic Journal*, (1), pp.1–33. Available at: http://papers.ssrn.com/abstract=2381263.

- Hollands, F. & Tirthali, D., 2014. MOOCs : Expectations and Reality Center for BenefitCost Studies of Education, Teachers College, Columbia University, NY. *Full report*. Available at: http://cbcse.org/wordpress/wpcontent/uploads/2014/05/MOOCs_Expectations_and_Reality.pdf.

- Littlejohn, A., 2013. Understanding massive open online courses. *CEMCA EdTech Notes*, pp.1–12.

- Preece, J. (2000). Online Communities: Designing Usability, Supporting Sociability. Chichester, England: John Wiley & Sons.

- Tynjälä, P. & Gijbels, D., 2012. Changing World: Changing Pedagogy. *Transitions and Transformations in Learning and Education*, pp.205–222. Available at: http://link.springer.com/10.1007/978-94-007-2312-2.

- Vale, K. & Littlejohn, A., 2013. Massive Open Online Courses: A traditional or transformative approach to learning? , pp.212–227.

- Whitelock, Denise (2010). Activating Assessment for Learning: Are We On the Way With WEB 2.0? In: Lee, Mark J. W. and McLoughlin, Catherine eds. Web 2.0-Based-E-Learning: Applying Social Informatics for Tertiary Teaching. IGI Global, pp. 319–342

Thank you ☺

Feedback on

- Theoretical Framework
- Pilot study