



Insights from Stakeholders on Designing Accessible MOOCs

Francisco Iniesto

Institute of Educational Technology

Open Education Global Conference 2020

<https://conference.oeglobal.org/2020/>

francisco.iniesto@open.ac.uk



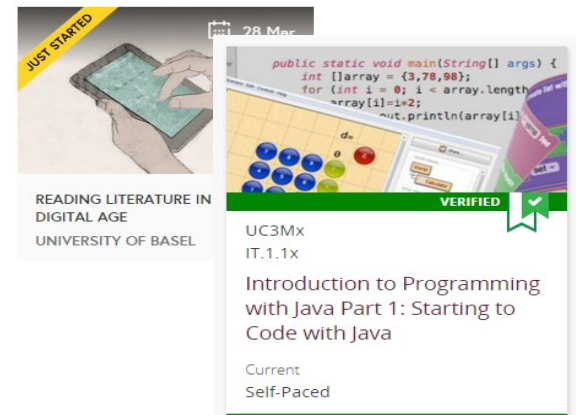
LEVERHULME
TRUST _____



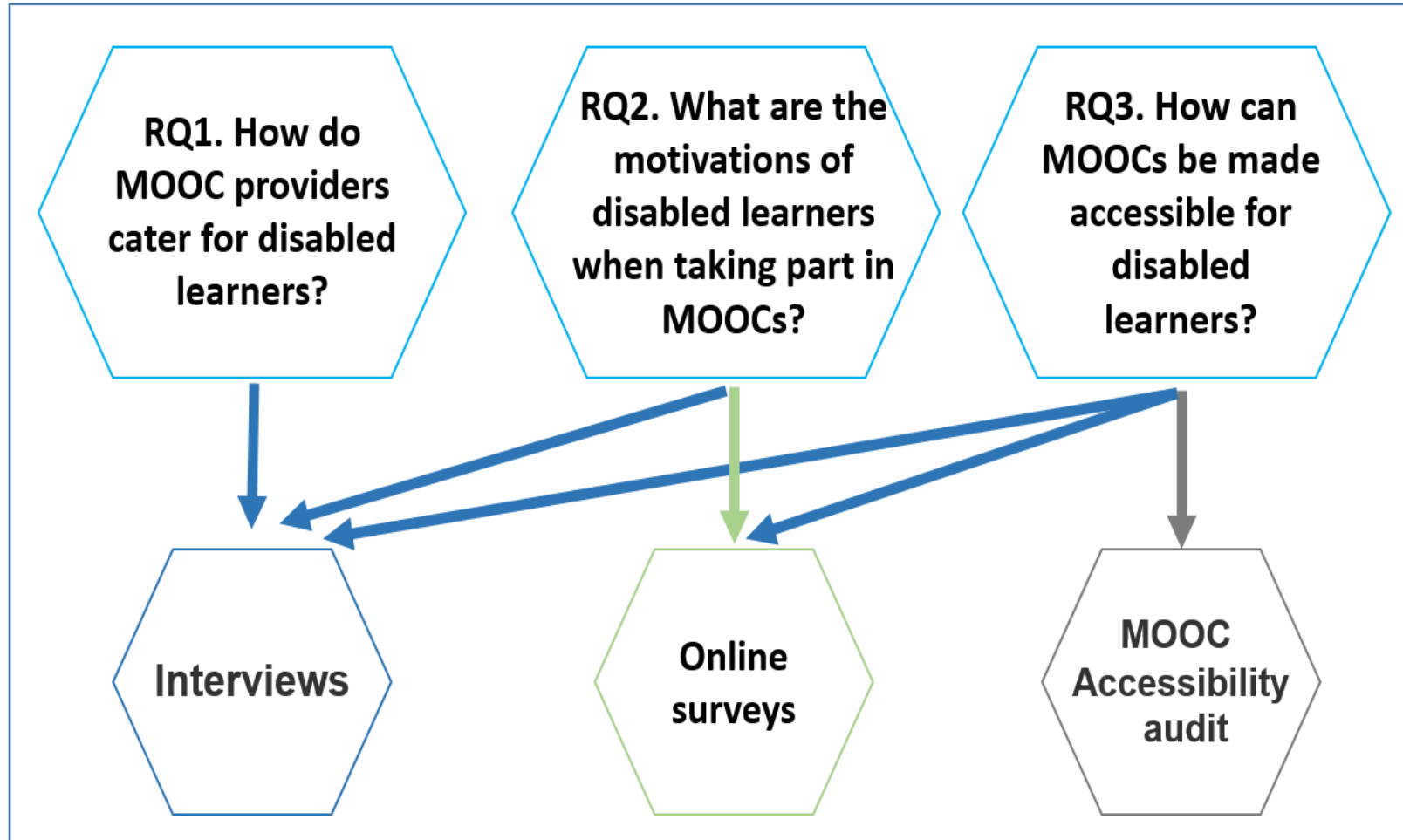
Introduction and related work



- **MOOC Learning, benefits such as:**
 - Openness
 - Low cost
 - Ubiquity (Time, place and pace)
 - Acquiring knowledge
 - Social learning: Connectivism
 - Achieving new competences
 - Develop professionally



Research questions



RQ3a. What is the current state of accessibility of MOOCs?

RQ3b. How can accessibility barriers in MOOCs be identified and addressed?

Research design

Study A: The perspectives of providers
RQ1 and RQ3

26 Interviews with MOOC providers

Study B: The perspectives of learners
RQ2 and RQ3

14 pre and post MOOC online surveys
+
15 interviews with disabled learners

Study C: MOOC accessibility audit
RQ3

Inter-rater reliability with experts
+
4 MOOCs from FutureLearn, edX, Coursera and Canvas



MOOC accessibility audit

Accessibility evaluation

- Perceivable
- Operable
- Understandable
- Robust
- Text-based files

Quality evaluation

- MOOC criteria
- Quality of the design
- Technical platform and support for learners

User Experience evaluation

- Platform design and access
- Educational resources
- Discussion, assignments, tests and quizzes
- Help: Report and feedback
- MOOC design

Learning Design evaluation

- Multiple Means of Engagement
- Multiple Means of Representation
- Multiple Means of Action and Expression

Contributions to knowledge



RQ1. How do MOOC providers cater for disabled learners?

1. There is a lack of data on disability in MOOCs
2. Providers think MOOCs can be helpful for disabled learners.
3. MOOC platforms depend on legislation, and it is driving accessibility
4. Find help and report accessibility

RQ2. What are the motivations of disabled learners when taking part in MOOCs?

1. Interest in the educational subjects, flexibility, friendly environment, low cost, personal and Professional Development

RQ3. How can MOOCs be made accessible for disabled learners?

1. Barriers are not necessarily related to technical aspects or disabilities, there is scope for improvement in accessibility
2. Limitations of MOOC production to provide dynamic solutions to accessibility barriers, learners responses to barriers are far from the solutions they will like to find

Recommendations



1. Platform Design

- Responsive and multi-device design. Consistency in the design and structure.
- Include built-in applications

2. Registration and sign up

- Design a simple process and provide examples for input assistance

3. MOOC search

- Easily identifiable, filters by themes, categories or topics of interest

4. Personalisation

- Default configuration values in the profile. Preferences should persist over different sessions
- Store goals in the profile and allow space for self-reflection

5. MOOC information page

- Offer structure information and differentiation between target groups
- Information about previous knowledge
- Syllabus with the information disclosed week per week

6. MOOC design

- Access the course content in different ways. All the content of the MOOC should be available from the beginning
- Provide a glossary with common words and abbreviations. Repository with extra educational and external resources

Recommendations



7. MOOC week syllabus and workload

- Provide study guides.
- Consider different levels of difficulty in the workload

8. Educational resources design

- Design short videos. Accurate subtitles and transcripts, handouts in text-based files. Provide several languages.
- Provide equivalent educational resources in several formats

9. Discussions design

- Organise discussions by themes and topics
- Deliver a consistent feedback mechanism

10. Assignments design

- Instructions should be clear and designed in different formats

11. Tests and quizzes design

- Feedback provided and linked to the educational resources
- Do not include time limits and flexible number of times in quizzes.

12. Help design

- Provide both technical and learning guides
- Include help focused discussions
- Provide Question marks icons to give context-sensitive orientation and a help button

Implications, future research and limitations



This research has two implications derived from its findings:

1. Greater knowledge of the MOOC stakeholders in accessibility
2. MOOC Accessibility Audit and recommendations

This research benefits MOOC providers and learners

Future research:

- Future work in empirical research and in the audit:
 - Comparative studies
 - Other sources of data
 - Improvements in the audit
 - Stakeholders involvement
 - Development of guidelines

Limitations: Representativeness

Conclusions

1. MOOC providers need a better understanding of their learners and their needs
2. Accessible MOOC development: Inclusive Design approach



Insights from Stakeholders on Designing Accessible MOOCs

Francisco Iniesto

Institute of Educational Technology

Open Education Global Conference 2020

<https://conference.oeglobal.org/2020/>

francisco.iniesto@open.ac.uk



LEVERHULME
TRUST _____

