

Understanding the stakeholders perspectives to design accessible MOOCs

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FutureLearn Academic Network meeting

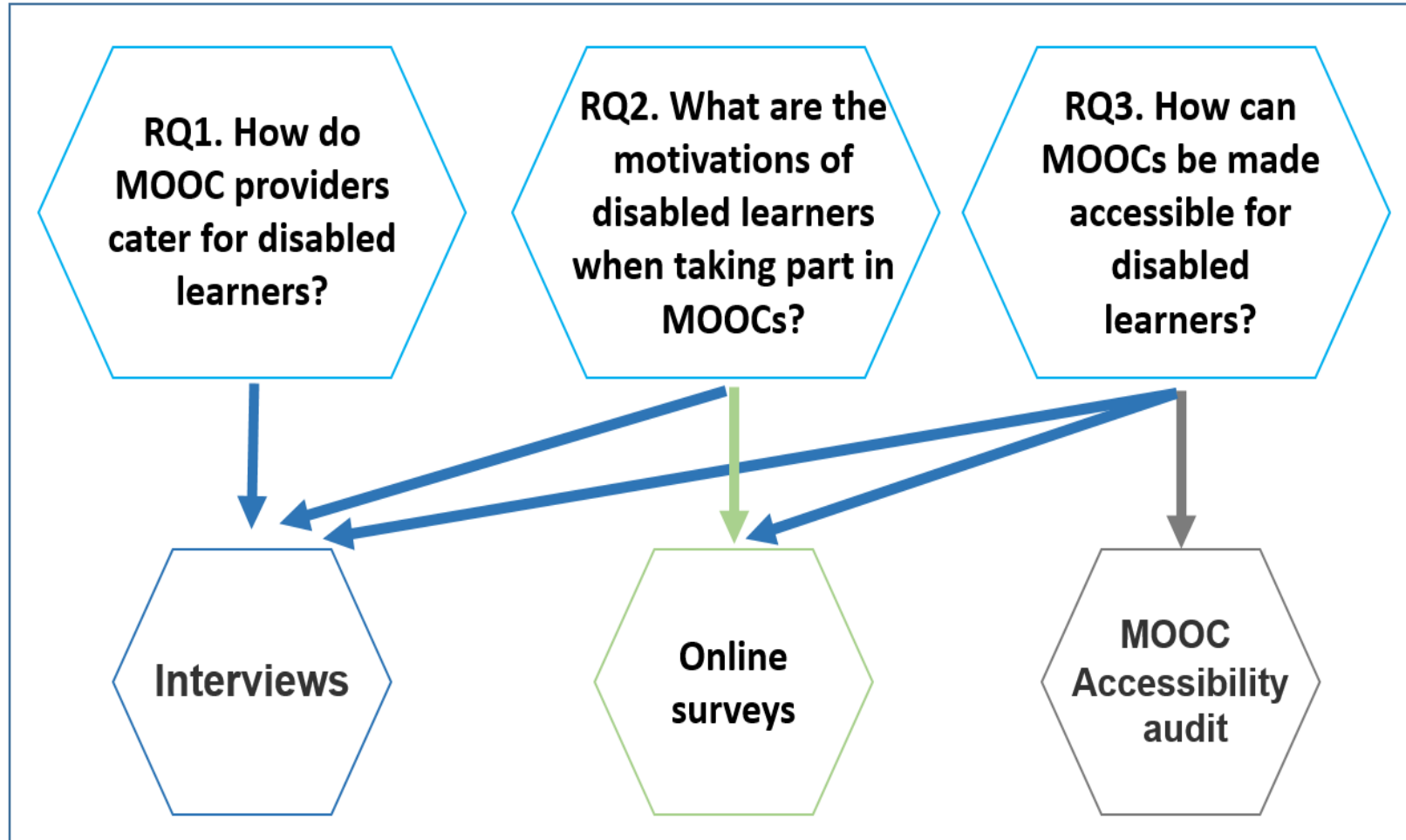
Thursday 6 June 2019



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Research questions



RQ3 a. What is the current state of accessibility of MOOCs?

RQ3b. How can accessibility issues 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

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



Profiles	Positions	Recommendations
Platform providers	<p>There is a general view that the responsibility of creating accessible content falls on course teams</p>	<p>Providers should increase the effort in developing the skills of the course teams to create accessible content providing training and authoring tools</p>
	<p>Legislation and standards play a predominant role in the development of accessible MOOCs</p>	<p>Further focus on learners, their preferences and learning design, has to be offered rather than aiming only to follow the minimum legal requirements</p>
	<p>There is a common understanding that MOOC platforms do not profile learners' preferences. It would also be useful to indicate the accessibility state of the course</p>	<p>Not profiling the preferences of learners makes it difficult to deliver, or even recommend, the content in an accessible way to the learner. A first step would be to inform learners about the different formats available and the accessibility of the educational resources</p>
Course Providers	<p>Accessibility is not always embedded in the conventional design and development activities of the educational context of course providers</p>	<p>Producing accessible educational resources requires clarity from the organisation in accessibility policies, guidelines and managing reported accessibility incidences</p>
	<p>General perceptions are that MOOCs can be valuable for disabled learners if they are accessible</p>	<p>Explore the potential of developing MOOCs potentiating various target groups</p>

Recommendations

	MOOC structure	Recommendations
Platform	Platform design and access	<ol style="list-style-type: none">1. Platform Design2. Registration and sign up3. MOOC search4. Personalisation
MOOC	MOOC design	<ol style="list-style-type: none">5. MOOC information page6. MOOC design7. MOOC week syllabus and workload
	Educational resources	<ol style="list-style-type: none">8. Educational resources design
	Discussion, assignments, tests and quizzes	<ol style="list-style-type: none">9. Discussions design10. Assignments design11. Tests and quizzes design
Both	Help: Report and feedback	<ol style="list-style-type: none">12. Help design

Recommendations



1. Platform Design

- Responsive and multi-device design
- Consistency in the design and structure
- Built-in applications

2. Registration and sign up

- Design a simple process
- Provide examples for input assistance
- Same level of importance

3. MOOC search

- Easily identifiable
- Filters by themes, categories or topics of interest
- Balance between pagination and scrolling

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
- Personalisation of learners' experience
- Track progress from the profile

5. MOOC information page

- Differentiation between target groups
- Previous knowledge required
- Syllabus with the information disclosed week per week

Recommendations



6. MOOC design

- Access the course content in different ways
- A clear organisation at week level
- 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
- Motivation should be kept during all the MOOC
- Certification should be aligned with the learning goals

7. MOOC week syllabus and workload

- Study guides
- Same structure within the MOOC
- Different levels of difficulty in the workload
- Introduce a summary

8. Educational resources design

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

Recommendations



9. Discussions design

- Discussions by themes and topics
- Consistent feedback mechanism
- Discussion should allow identification

10. Assignments design

- Aligned with the learning goals
- Instructions should be clear
- Designed in different formats
- Built-in solutions

11. Tests and quizzes design

- Aligned with the learning goals
- Feedback provided and linked to the educational resources
- Time limits and flexible number of times.

12. Help design

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

Implications, limitations and future research

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

Limitations: Representativeness

Future research:

1. Future work in empirical research and in the audit

Conclusions

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

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