

Widening Access and Success



Widening disabled learners' participation to HE through the use of MOOCs

Francisco Iniesto, Patrick McAndrew, Shailey Minocha and Tim Coughlan
The Open University

5th OU – Widening Participation Conference – 26/27 April 2018
Is widening participation to higher education enough?
Milton Keynes



LEVERHULME
TRUST



2015 SETTLEMENT WITH EDX AND 2017 BERKELEY

Department of Justice

U.S. Attorney's Office

District of Massachusetts

FOR IMMEDIATE RELEASE

Thursday, April 2, 2015

United States Reaches Settlement with Provider of Massive Open Online Courses to Make its Content Accessible to the Disabled

Berkeley Will Delete Online Content

Starting March 15, the university will begin removing more than 20,000 video and audio lectures from public view as a result of a Justice Department accessibility order.

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



miríada



**RWTHAACHEN
UNIVERSITY**

UNED

Two overlapping MOOC course cards. The top card is for "READING LITERATURE IN DIGITAL AGE" by the University of Basel, featuring a yellow "JUST STARTED" banner and an image of a hand using a tablet. The bottom card is for "Introduction to Programming with Java Part 1: Starting to Code with Java" by UC3Mx, featuring a green "VERIFIED" banner, a code editor screenshot, and a green checkmark icon.

JUST STARTED

READING LITERATURE IN DIGITAL AGE
UNIVERSITY OF BASEL

VERIFIED

UC3Mx
IT.1.1x
Introduction to Programming with Java Part 1: Starting to Code with Java
Current
Self-Paced

STUDIES

Study A: The perspectives of providers

26 Interviews with MOOC providers and those with a range of expertise in the MOOC community

Study B: The perspectives of learners

15 interviews with disabled learners
Pre and post MOOC survey data from 14 Open University MOOCs at FutureLearn

Study C: MOOC accessibility audit

1. Accessibility heuristic evaluation
2. UX walkthroughs and design in learning
3. Quality of the design
4. Universal design for Learning (UDL)

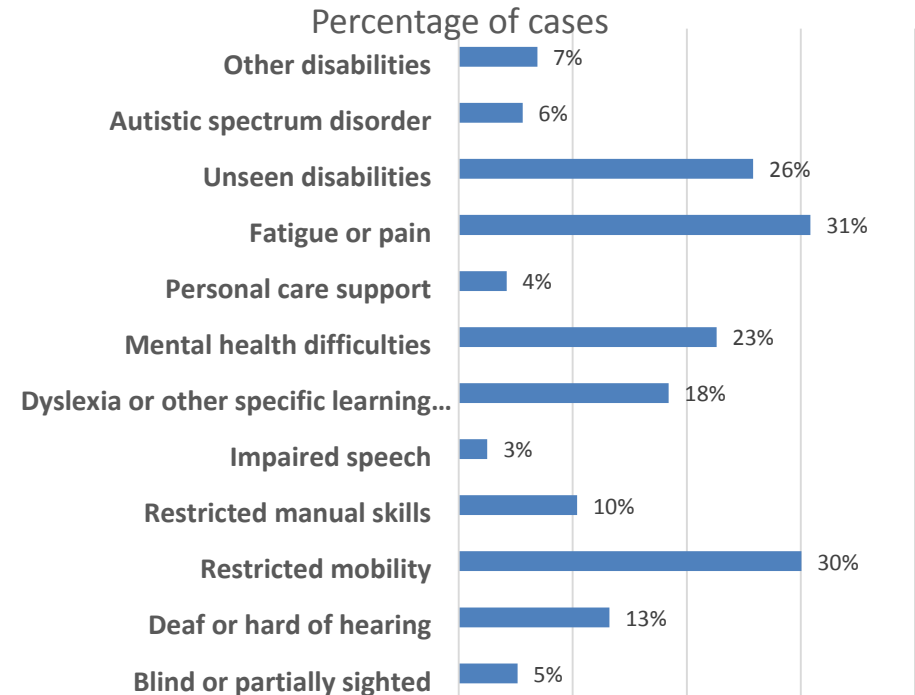
Being tested on FutureLearn, edX, Coursera and Canvas.

ONLINE SURVEYS

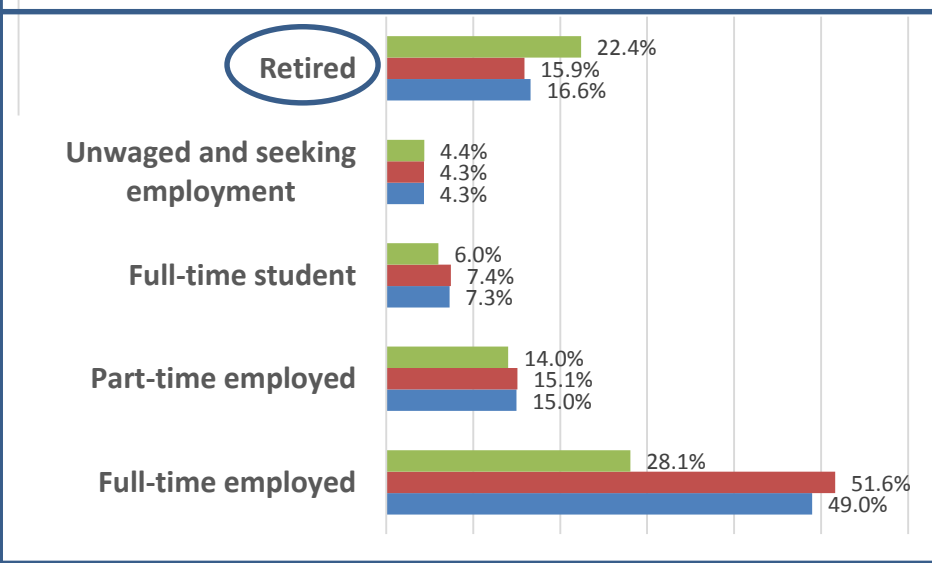
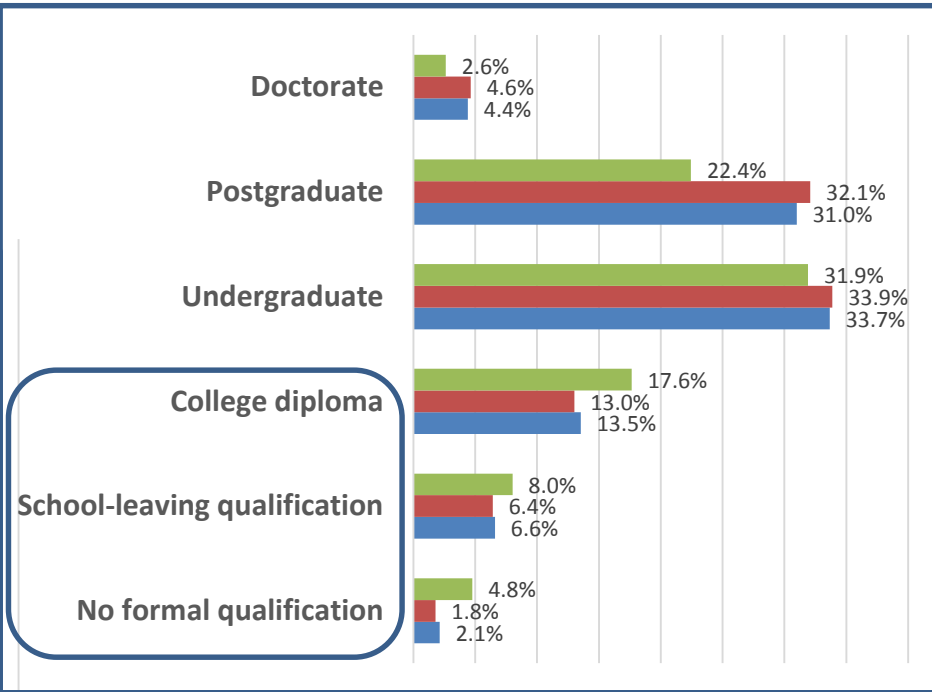
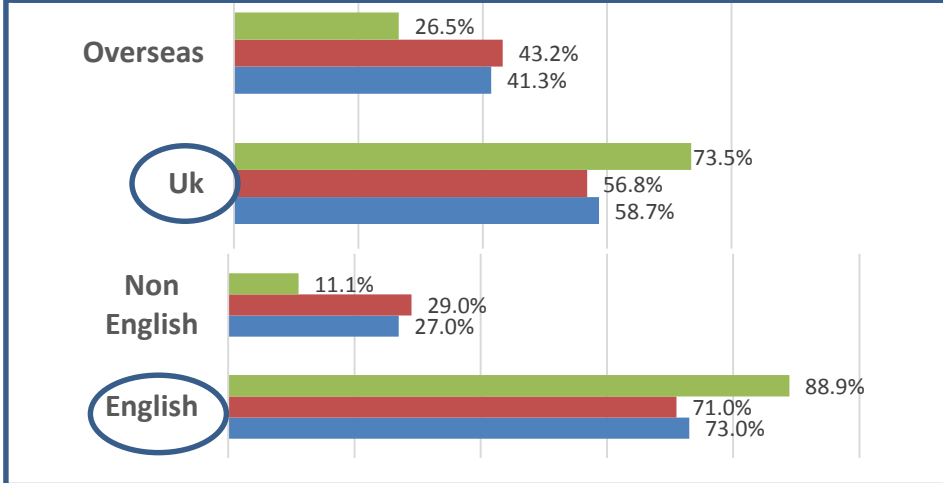
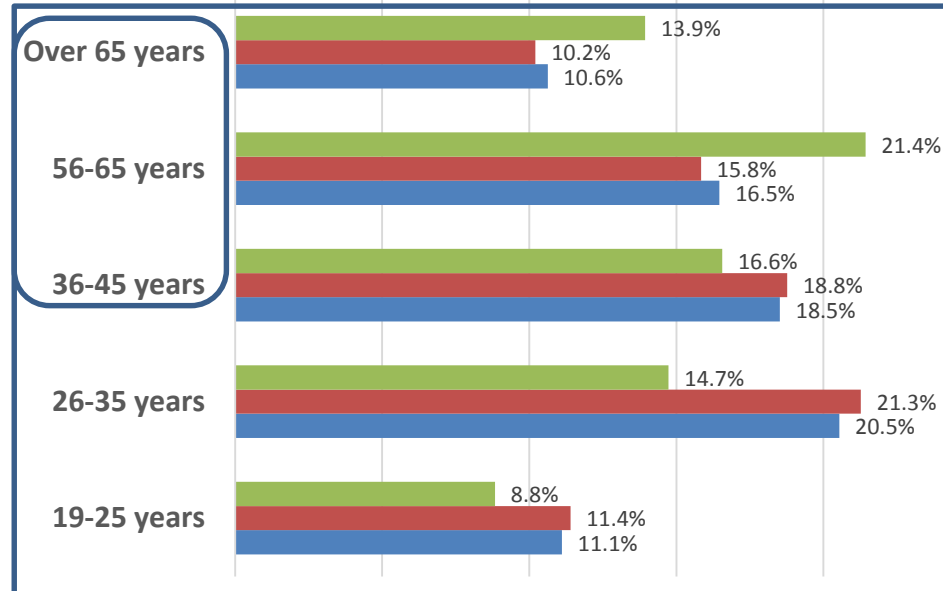
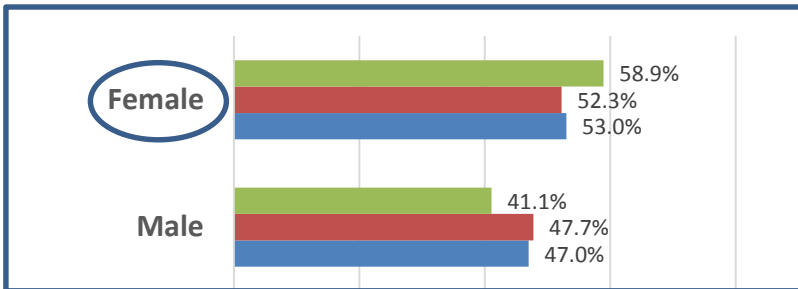
- Analyse pre and post course survey data from 14 Open University MOOCs at FutureLearn (2013-2015)

	Pre-Course Survey	Post-Course Survey
Name of course	% Disabled Learners (Total)	
Basic Science Understanding Experiments	13.3% (804)	20.9% (163)
Elements of Renewable Energy	11.6% (974)	11.3% (150)
Get Started with online learning	15.2% (1668)	15.7% (280)
Introduction to Cyber Security	9.4% (6065)	9.9% (1049)
Introduction to Ecosystems	13.1% (734)	12.1% (240)
Learn to code for data analysis	8.8% (3454)	7.6% (158)
Managing My Money	13.1% (1401)	12.4% (394)
Moons	11.8% (1251)	12.2% (935)
Smart Cities	5% (1020)	2.9% (137)
Start Writing Fiction	14.2% (5215)	16.0% (714)
The Business of Film	8.3% (977)	9.6% (240)
The Lottery of Birth	13.5% (1426)	7.3% (96)
The Science of Nutrition	10.5% (2813)	12.0% (702)
Understanding Musical Scores	12.8% (1631)	14.0% (371)
Total	29433	5629

	Profile
Pre-Course survey	Demographic information, Location Areas of interest and expectations
Post Course survey	Learning outcomes, Completion, Devices used. MOOC structure and interactivity, Learning experience, Educators and Evaluation



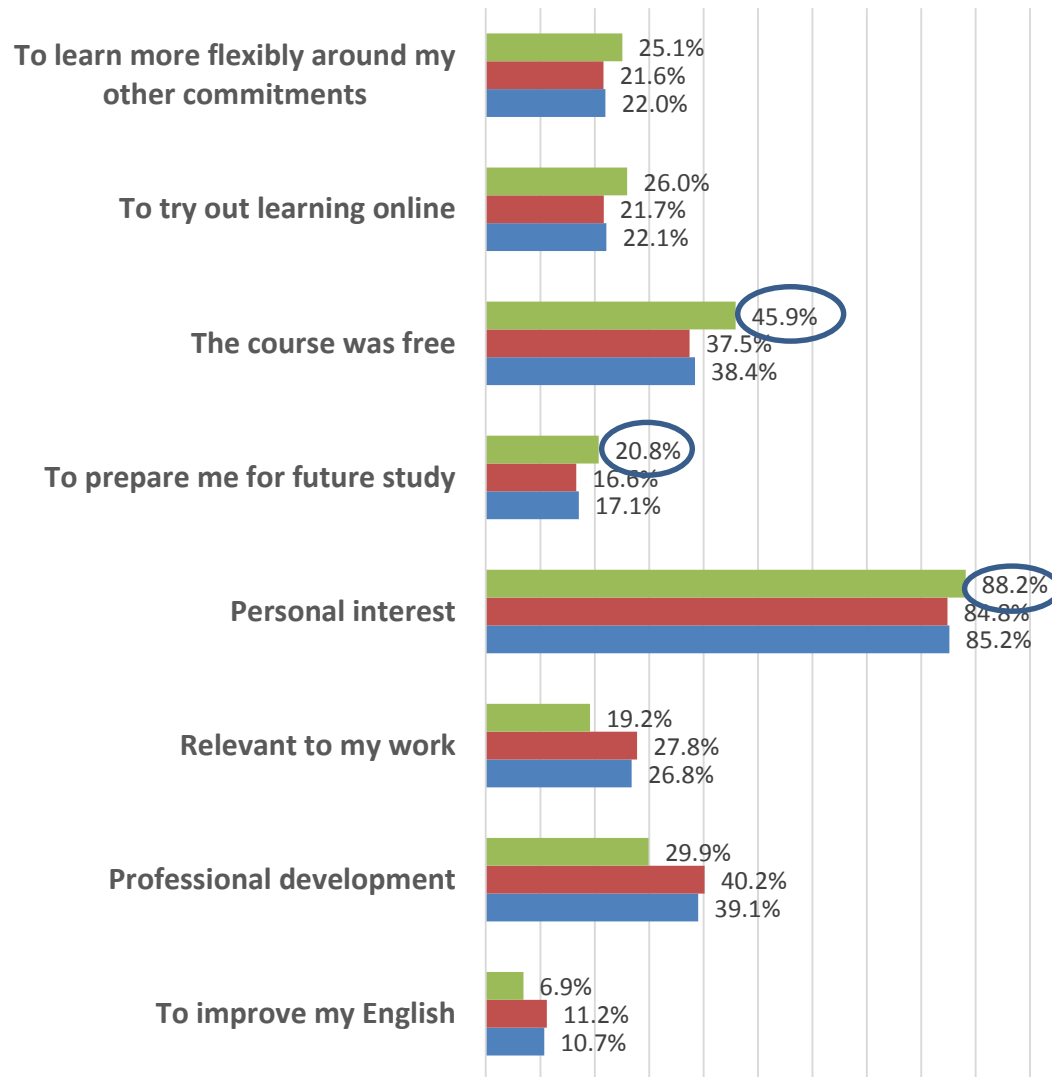
DEMOGRAPHICS



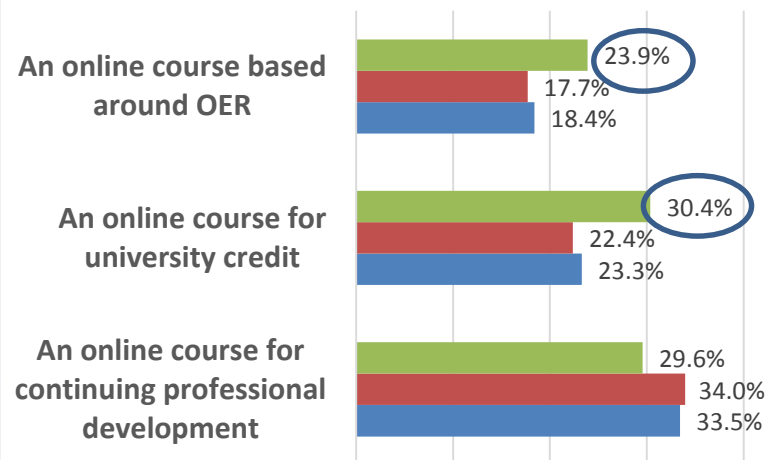
■ Disabled ■ Non-Disabled ■ Total

INTEREST AND ONLINE LEARNING (PRE)

Why are you interested in studying this course?



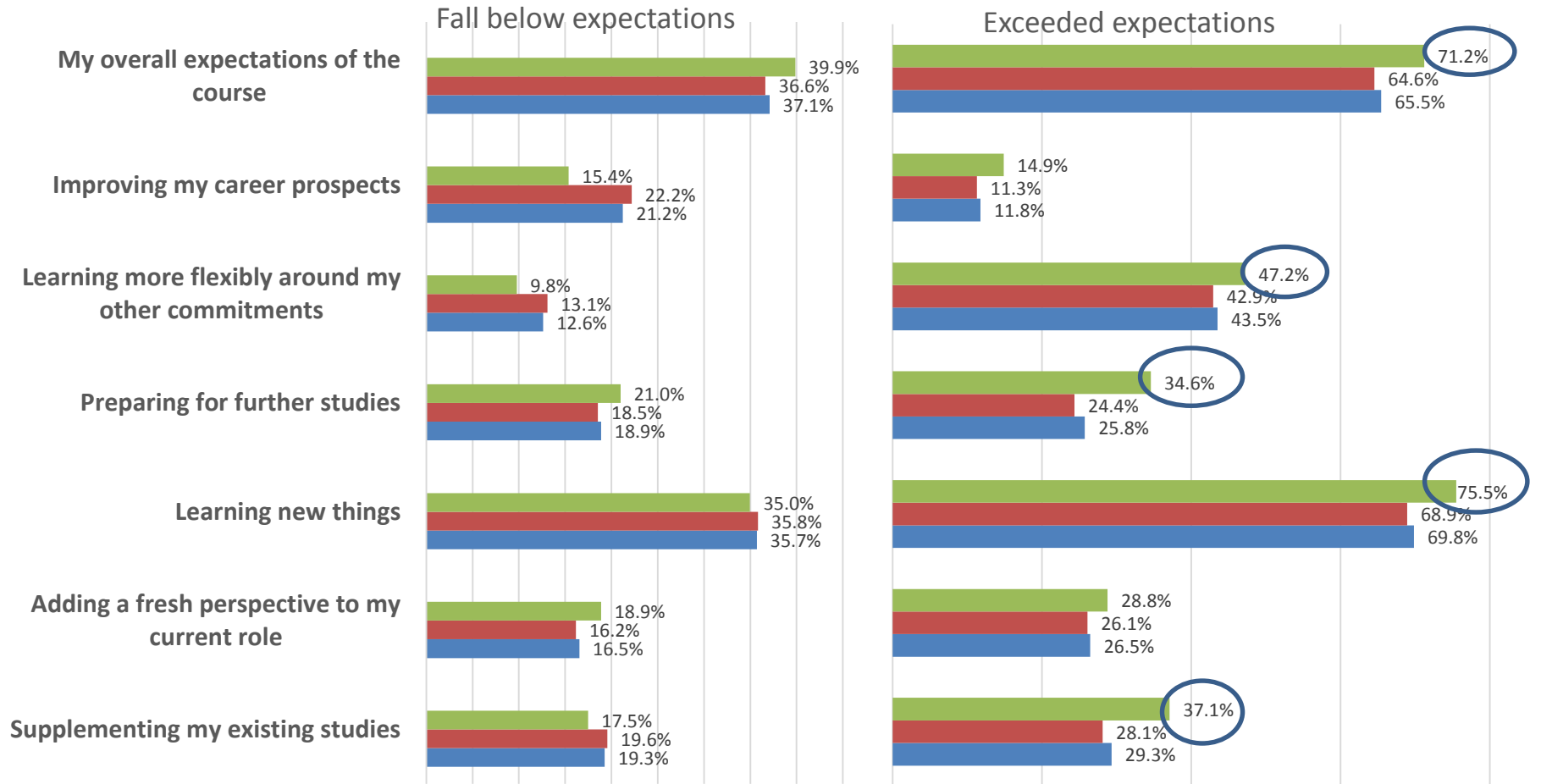
What sort of online course have you taken?



■ Disabled ■ Non-Disabled ■ Total

EXPECTATIONS (POST)

To what extent did FutureLearn meet your expectations in terms of the following?



■ Disabled ■ Non-Disabled ■ Total

FOLLOWING ACTIONS (POST)

As a result of using this Open University course, are you more or less likely to do the following?

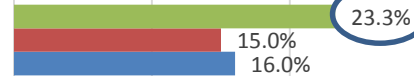
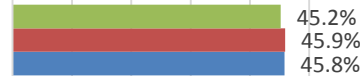
More likely

less likely

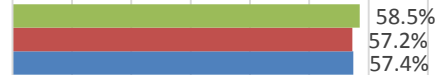
Study more free Open University materials



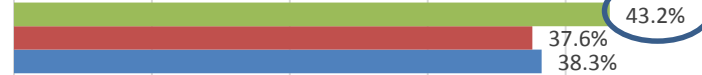
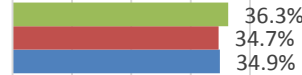
Visit related museums, exhibitions, galleries, etc.



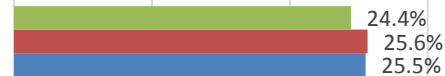
Look at other related materials



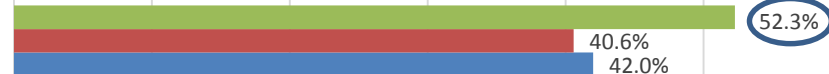
Take part in other online activities



Research this subject further



Take a paid-for course in this subject area



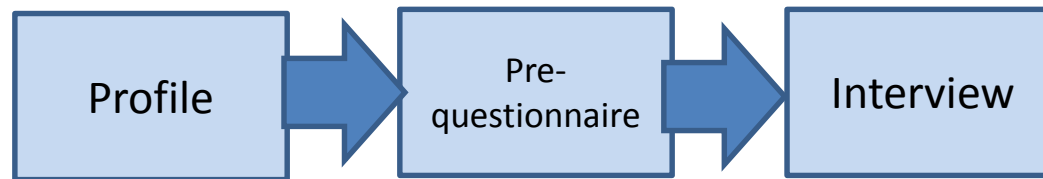
Take another free course in this subject area



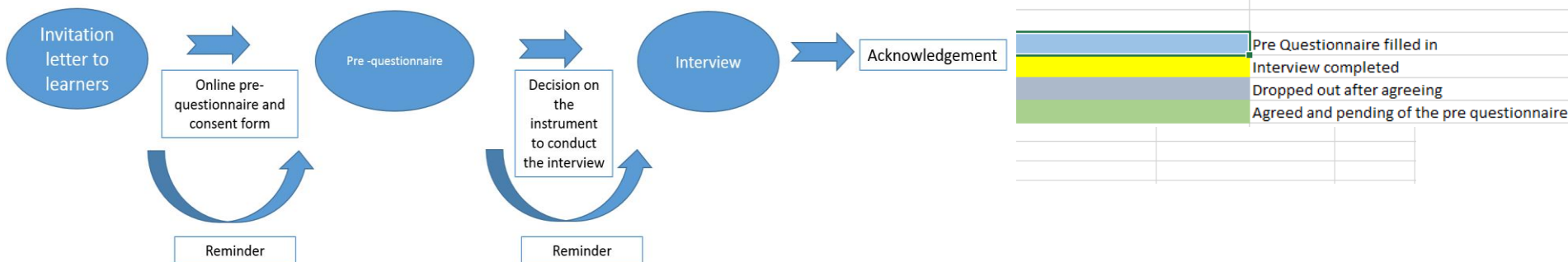
■ Disabled ■ Non-Disabled ■ Total

INTERVIEWS WITH LEARNERS

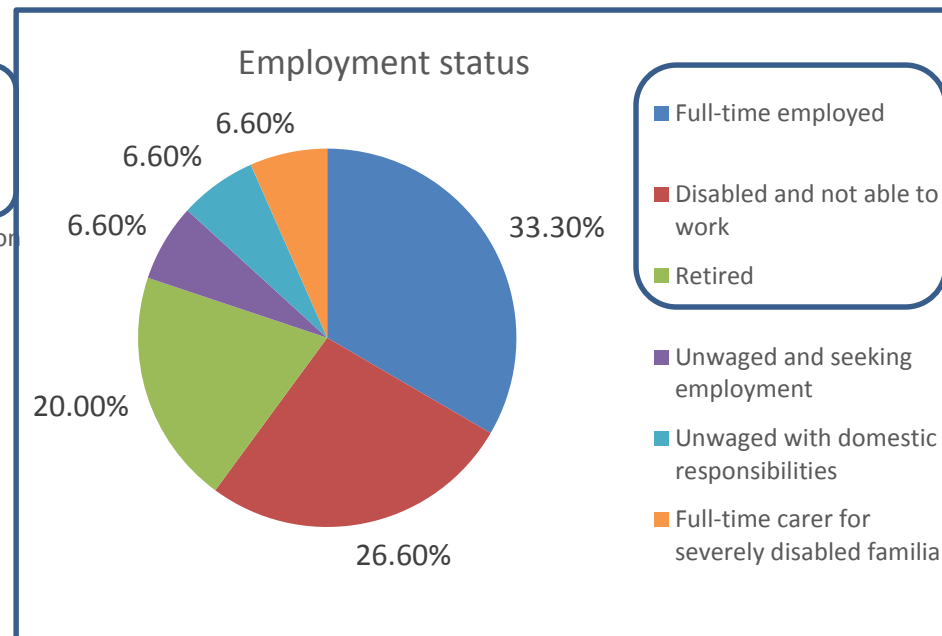
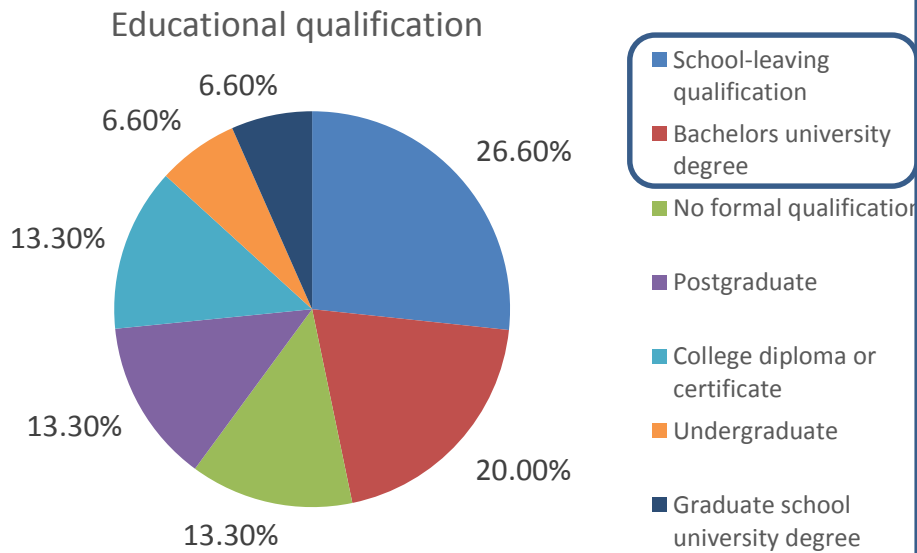
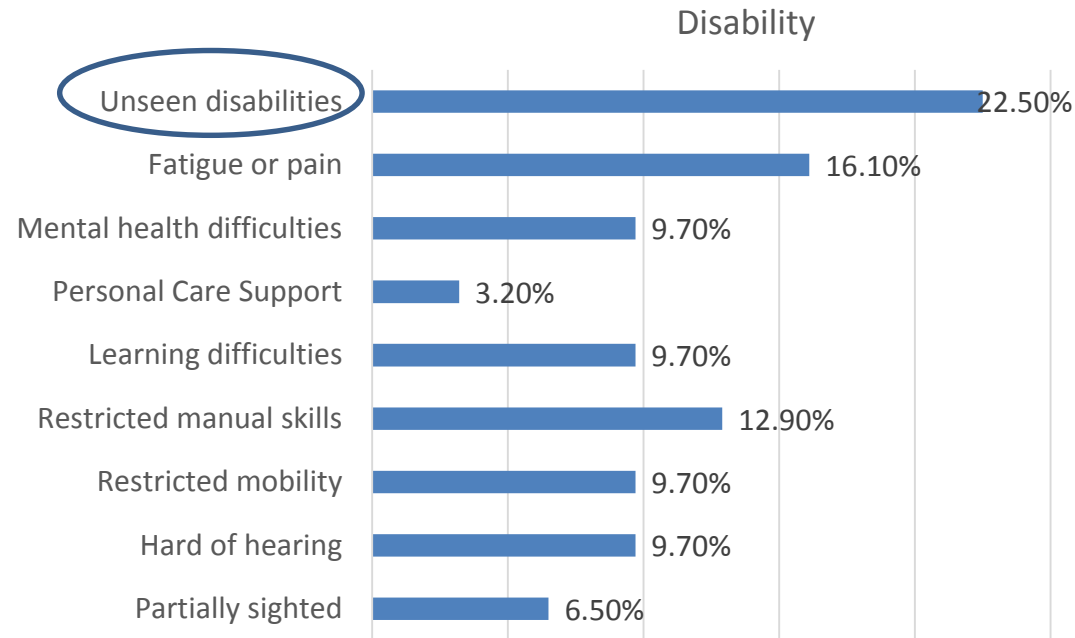
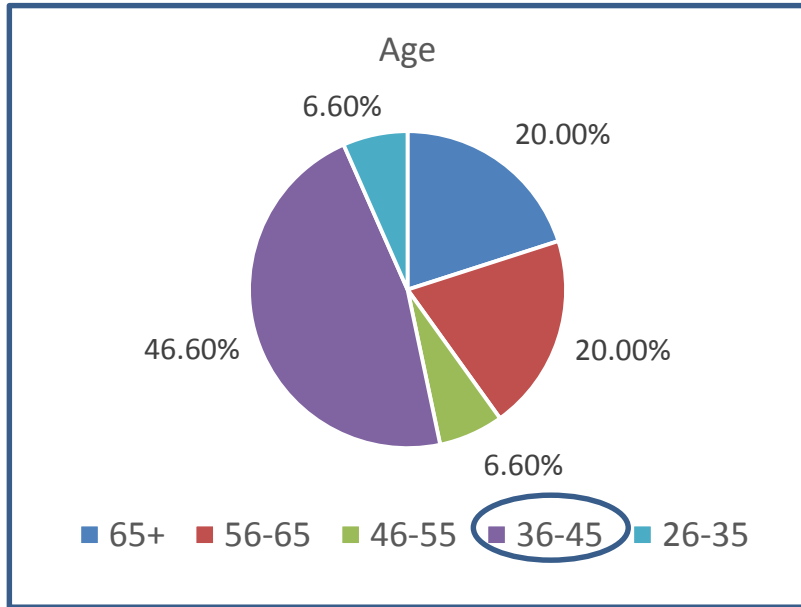
- Pre and post course survey data from 8 Open University MOOCs at FutureLearn (2015)
- Total learners interviewed 15



ID	Disabilities	MOOC	Contacted	Remind	Agreed	Declined	Date of the pre-questionnaire	Date of the interview	Taken by
	BPS, LD, MHD, UD	The Science of Nutrition	Yes	No	Detected as SPAM				
FL5	BPS, RM, RMS, FP, UD	Elements of Renewable Energy	Yes	Yes	Yes		25/05/2017		skype
FL1	DHH	Get Started with online learning	Yes	No	Yes		14/05/2017	05/05/2017	survey
FL3	RM	The Science of Nutrition	Yes	Yes	Yes				
	RM, FP	Smart Cities	Yes	Yes					
FL4	MHD	Get Started with online learning	Yes	No	Yes		14/05/2017	18/05/2017	skype
	RM, LD, FP	The Business of Film	Yes	Yes					
FL2	RM, RMH, FP, UD	Get Started with online learning	Yes	No	Yes	Yes			
	RM, RMS, MHD, PCS, FP	Understanding Musical Scores	Yes	Yes					
	LD, UD	The Science of Nutrition	Yes	Yes			Blind or partially sighted		BPS
FL10	RM, RMS, UD	Understanding Musical Scores	Yes	Yes			Deaf or hard of hearing		DHH
	RM, RMS, FP	Understanding Musical Scores	Yes	Yes			Restricted mobility		RM
	RM, UD	The Science of Nutrition	Yes	Yes			Restricted manual skills		RMS
FL6	DHH	Get Started with online learning	Yes		Yes		Dyslexia or other specific learning difficulties		LD
	RMS, MH, FP, UD	Get Started with online learning	Yes	Yes			Personal Care Support		PCS
FL7	BPS, DHH,	The Science of Nutrition	Yes	Yes	Yes		Mental health difficulties		MHD
	DHH	The Science of Nutrition	Yes	Yes			Fatigue or pain		FP
FL9	MH, FP	The Science of Nutrition	Yes	Yes	Yes		Unseen disabilities		UD
	FP	Get Started with online learning	Yes	Yes					
	MH	Understanding Musical Scores	Yes	Yes					



INTERVIEWS WITH LEARNERS



ANALYSIS

- Thematic analysis: inductive approach for coding the interviews has been followed using transcripts of the interviews.
- The transcripts were read and annotated using the 6-phase methodology by Braun and Clarke (2006)
- 5 themes with 23 codes
- Code **“Certification, Professional development and access to HE”** to understand: **“Widening disabled learners’ participation to HE through the use of MOOCs”**

RELEVANT QUOTES

*“I did learn some things yeah because obviously, **I did it before I started properly on my law course, so I learned quite a lot** “*

Disabled learners who are already participating in HE are using MOOCs to supplement their degree studies

*“I think maybe FutureLearn should do well any of them **they are going to do something about getting started with online learning** ”*

A way to get started with online learning

*“ I found it very useful, and I know there's a lot of mature students with the Open University and **a lot of the mature students who are good with technology / I think it should be like a little bit of compulsory unit or something before starting**”*

To gain preliminary knowledge on an HE topic before starting the formal university course

LIMITATIONS AND CONCLUSIONS

Limitations:

- A simple **disability marker** may not reflect diversity within the **population**.
- It should not be assumed that these results **generalise** to the whole of the **disabled learner population**.
- Including **categories of disability** will provide greater insight into differences within the population of disabled learners.
- Extensions to the analysis approach to include **clustering of responses, and identification of correlations**.

Conclusions:

- Disabled learners are particularly interested in taking up MOOCs, for **personal interest**, to determine if they can **study at a higher educational level** and to get flexibility and free education. They are less interested in the relevance of the MOOC to their work, or professional development.
- Disabled learners have previous experience in online courses that allows them to **get university credit**, which is related to their interest in studying at a higher educational level. They have less experience of participating in online courses for continuing professional development.

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Discussion and questions

Francisco Iniesto, Patrick McAndrew, Shailey Minocha and Tim Coughlan

The Open University

{francisco.iniesto, patrick.mcandrew, shailey.minocha, tim.coughlan}
@open.ac.uk

