Barriers and enablers to higher education: the experiences of disabled students from minority cultural backgrounds.

eSTEeM Final Report

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The Open University

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Executive Summary

The aim of this project was to look at processes and experiences that were either a barrier to students to joining the University or an enabler– another way of looking at this is what helped and what stopped students registering and joining their course. Rather than focus on one particular descriptor of research participants, this project took an intersectional approach to examine the student experience from the combined perspectives of social and cultural background and disability – this would give a broader overview of the student experience. The aim of the project was to investigate the challenges faced by students who fell into these categories within STEM focusing specifically on registration to the end of the first year of study. The research approach taken was to use both quantitative and qualitative data from students in two different courses i.e. T192 and U116; the aim was to identify what were the key barriers and enablers to the pursuit of their studies with the Open University. The research approach adopted was that of an on-line survey using both closed and open-

ended questions to ensure that students had the opportunity to expand on their experiences.

The primary aim was to investigate what processes supported the student to negotiate registration and how they used the Student Support Team and their tutors to help them navigate their learning journey. Following due ethical process, students in these modules were approached to take part in the survey. Although the response rate was not as high as hoped, the results were positive and demonstrated the supportive role that the Student Support Team and tutors played to help students join the university. The challenges that some students found harder was accessing the on-line material as unfamiliarity with OU systems made this challenging to navigate. That said, respondents were positive about support received from the Student Support Team and their tutors. The findings of this research have demonstrated that there are some areas that could be improved and others where there is a very high standard of good practice. These findings have been used to inform research into further project to map how student's use different support mechanisms and in a pan university project about the barriers and enablers experienced by students with mental health difficulties (see Patel et al 2024 and Comfort, Corcoran and Corcoran 2024).

Aims and scope of the project

The project took an intersectional approach to examine the student experience from the combined perspectives of social and cultural background and disability: in 2019 there were 10,543 students registered in STEM of which and 2,079 were registered disabled. The aim of the project was to investigate the challenges faced by students who fell into these categories within STEM focusing specifically on registration to the end of the first year of study i.e. what were the barriers facing students entering HE and conversely, what were the enablers that helped them to complete their journey. Research can focus on the negatives (barriers) at the expense of the positive (enablers) which often masks the positive support that students can have as they embark on their learning journey; the aim of this research was to identify areas that could be better but also to celebrate those areas of success.

The topics explored for these barriers and enablers were educational background, the input from the family who are often hidden supporters, the influence of social, cultural and economic motivations, and how and why the OU was the chosen university.

The original aim of the project was to adopt a 'students as partners' (Jenkins and Healy, 2011; Mercer-Mapstone et al, 2017) approach by recruiting disabled student or students, from STEM as co-researcher/s and to use their input as the basis of the focus group discussions. SRPP were to e-mail eligible students who

met the selection criteria on my behalf and, with the students' consent, pass to me the name(s) of students who were interested in the project.

The project began with a statistical overview of STEM, E & I before focussing on modules U116 2022B and T192 2022D. A questionnaire was sent to all participating students concentrating on investigating what did and did not impede their journey to HE; on completion students were asked if they wished to take part in focus groups where key points raised from the questionnaire could be discussed.

It is hoped that these discussions will challenge preconceptions and assumptions of how and why disabled students come to the OU and to HE. The outcomes of the discussions will be passed to academic, teaching and administrative staff to inform structure, pedagogy and student engagement from the point of registration to completion of the first year of study. This approach will ensure that all levels of the Faculty have access to the findings and can make appropriate changes to teaching or management practice to ensure retention. On completion of the study, stand-alone workshops will be delivered to staff and data will be shared with colleagues delivering staff development sessions where appropriate. In summary, the overall aim of the project is to ensure that disabled students from different ethnic and cultural backgrounds are as supported as they can be throughout their learning journey.

This project builds on previous research and policy issues in higher education, specifically the Widening Participation agenda (Hodgson, 2000) that was aimed at redressing the under representation of groups from lower income families

and those with disabilities. More recently there has been increased media and research interest in the experience and support of different ethnic groups of students, for example Universities UK (UUK) has recently produced 'Minority Ethnic Student Attainment at UK Universities' and it is hoped that the project will be able to explore some of the issues experienced by these students. In addition, universities such as London School of Economics (LSE) and Loughborough are looking closely at their student experience; specifically, Swansea are developing interest groups aiming to raise awareness of challenges face by different ethnic groups in STEM. The OU is fully engaged with this inclusive approach to students as evidenced through Access, Participation, Success (APS) and particularly through the Access and Participation Plan that does give an overview of disabled and excluded students.

To support established work and policy, this study used quantitative data to achieve an overview of students in STEM and E&I before looking at the student experience using qualitative questions. Adopting an intersectional approach (Liasidou, (2012); Ro and Loya, (2015); Hernandez-Saca, Guttman Kahn and Mercedes (2018); Igtadar, Hernandez-Saca and Ellison (2020) will give a theoretical framework that embraces multiple social categories such as race, ethnicity, social circumstances and disability rather than focussing on just one characteristic. This will enable a micro understanding of the different inter-locking systems that influence and impact upon the student learning experience. These can then be used as examples to illustrate and link back to the University's strategic plans and inform administrative practices, student support as well as teaching and learning practices.

Aims

- Using an intersectional approach to the project the aim is to investigate that difference is not comprised of discrete areas.
- Recruit a disabled student from STEM to help inform the project.
- Identify barriers to STEM for disabled students
- Identify enablers to STEM for disabled students
- Feed results into various layers of the OU learning journey to enable good practice and promote greater inclusion

Objectives

- To work with a student/s as a partner/s to ensure that the project has perspective from the research population.
- Through focus group discussions with disabled students find out what was helpful in getting a place on the chosen course in STEM
- Through focus group discussions with disabled students find out what was challenging in getting a place on the chosen course in STEM.
- To analyse the data and look for patterns, commonalities and outliers in the data that impacted on the students' experience of STEM at the OU.
- To disseminate these data to various layers of teaching, student support and administration at the OU to share good practice and to identify challenging areas. This can be achieved through workshops, through sharing good practice and through wider dissemination at conferences.

Activities

Overall approach of the project

The approach to this project was one of intersectionality which is a term first created by black legal scholar and Professor Kimberlé Crenshaw in 1989 to view order multiple oppressions experienced in identity; Patricia Hill Collins later extended these intersections adding race, gender, class, sexuality, nationalism and age (Villia-Nicholas, 2018). Drawing on this approach, in terms of the student experience, this would cover combined perspective of social/cultural background and disability. These intersections can combine, overlap or intersect especially in the experiences of marginalised individuals or groups (Theoharis and Causton, 2016).

The aim was to investigate the challenges face by students who fell into these inter sectional areas within STEM. The planned focus was on the period from registration to the end of the first year of study i.e. what are the barriers facing students entering HE and conversely, what are the enablers that help them to complete their journey. The aim was that data would be collected using semi-structured interviews followed up by focus group discussion.

Ethical Approach to the Study

As this project was focused on a range of students some of whom would have mental or physical health issues, it was important that the ethical approach taken was clear, supportive and transparent. For that reason, the approach was one of inclusion and equitability where all individuals would be treated with respect and the OU codes of practice were strictly adhered to (The Open University 2021).

The use of the word ethics in research is seen as both a philosophical approach to distinguish between right and wrong and as an applied code of conduct that distinguishes between what is acceptable and unacceptable behaviour in when conducting research (Resnik 2020). Given that the research population were generously giving their time and sharing personal information this was a useful point to revisit these codes of conduct (The Open University, 2021).

However, there is an argument that strict adherence to the ethical guidelines can limit the research process. Awal (2023) makes a good point in the abstract to his paper:

> 'From fostering public trust and upholding the integrity of research to ensuring the safety and rights of all participants, these limitations, grounded in ethical tenets, often prove instrumental in driving meaningful and impactful research. Conversely, the subsequent section casts a critical eye on the disadvantages of these ethical limitations. It probes into scenarios where stringent ethical barriers might impede innovation, delay

crucial research findings, or even deter potential researchers from embarking on certain investigative journeys'.

Although this is not a negative reflection of the good practice that is being adhered to it is an interesting point that sometimes with the best of reasons and intent the codes of practice can limit research and influence how questions are asked which can dilute their purpose.

It was through constructive conversations between the researcher and the reviewers that the codes of practice were applied although these adjustments took time and resulted in a much broader topic than planned; this in turn made the questions more general rather than specifically unpicking individual student's experiences.

Changes to the project

Despite requesting student collaborators there were no volunteers to join the project. Student input was an integral part of the project, and this gap was filled by recruiting PhD students as to the preliminary stages of the project who used their student perspectives of the topic to formulate appropriate questions.

Student participants were asked if they wished to join a focus group discussion but this was declined; this lack of qualitative input was ameliorated by adjusting the semi-structured survey to include the addition of more open-ended questions so that students had the opportunity to elaborate on their answers and give their own perspective.

Data Collection

Data were collected through on-line semi-structured interview questionnaires that were sent to all students on U1162022B and T192 2022D (see Appendix 1).

Preparing the questionnaires

The questionnaires were developed around the aims and objectives of the project and were piloted with the two ALs who supported the delivery of the project. The piloting process was important to ensure that the questions were clear and that there were not any technical issues with the on-line survey. Questions were mainly closed-ended responses although there were opportunities for participants to give more detail in the open-ended questions. The survey was prepared using JISC on-line surveys and sent to 100 students in total on T192 2022D and then U116 2022B – the two courses had different start dates for 2022 which is why they could not be done at the same time.

An e-mail with the link to the survey was sent to students on both courses with an invitation to take part in the research which contained a consent form for students to complete (see appendix 2). The response rate was monitored and the first call was very low. Subsequently another e-mail was sent to students to encourage them to participate and because of these prompts we received consent forms from 12 students. A third e-mail reminding students of the project was sent out but no further replies were received. This was disappointing but low response rates can be linked to survey fatigue particularly for focused research populations. The issue is that small numbers are not considered to be generalisable, but low response rates should be considered on their merits and as survey fatigue increases so thresholds with absolute levels

might be seen as unrealistic (Meterko, 2015). As it was useful data did come from the survey although this is a useful point to reflect on with respect to the research process.

Findings

Main findings

Background data

Twelve students responded to the survey all of whom were male and their ages ranged from two respondents in the 18-29 bracket and one in the 70-80 age range.

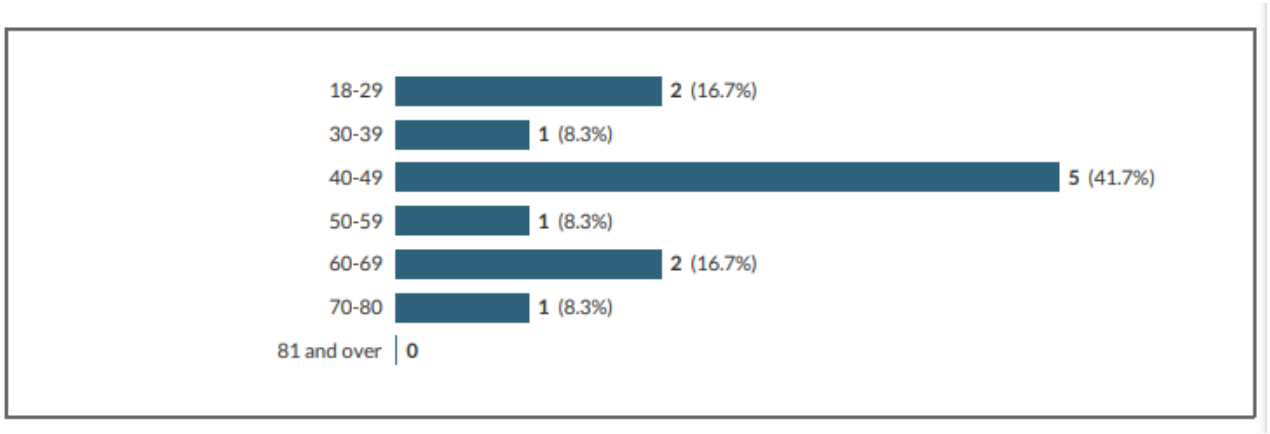

Figure 1: Age range.

Of the 11 respondents who answer the question on ethnicity, only one ticked white or black African.

Overall, the participants were scattered across the country although the small numbers of respondents could not suggest any pattern of geographical

participation.

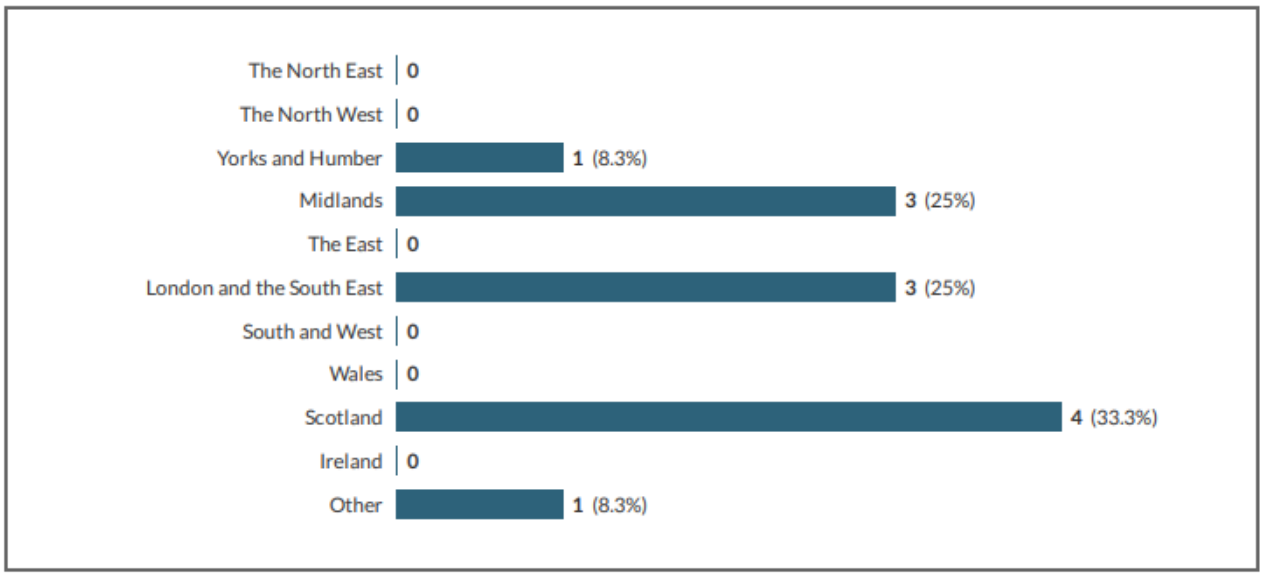

Figure 2 In which part of the country do you live?

Education

Of the 11 students who responded to the question as to which module they were studying, four were studying U116 and seven T192.

When asked about previous education the majority (N=7; 63.6%) had gone to further education but no higher which is similar to the OU figure of 76.% for the whole university (The Open University 2025).

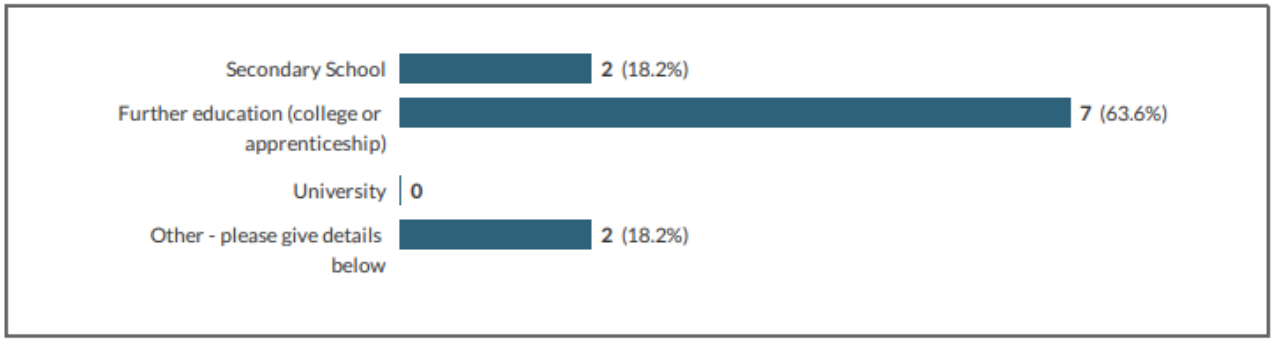

Figure 3 Highest previous educational experience

In terms of Higher Education, three participants (25%) were the first people in their family to go to university.

Employment

Of the 11 who replied seven (63.6%) were in full time employment, three were part time and one was unable to work

Disability

In this section students identified which disabilities applied to them. Many reported that they had co-morbidities i.e. more than one health condition which would impact on the kinds of support they would need.

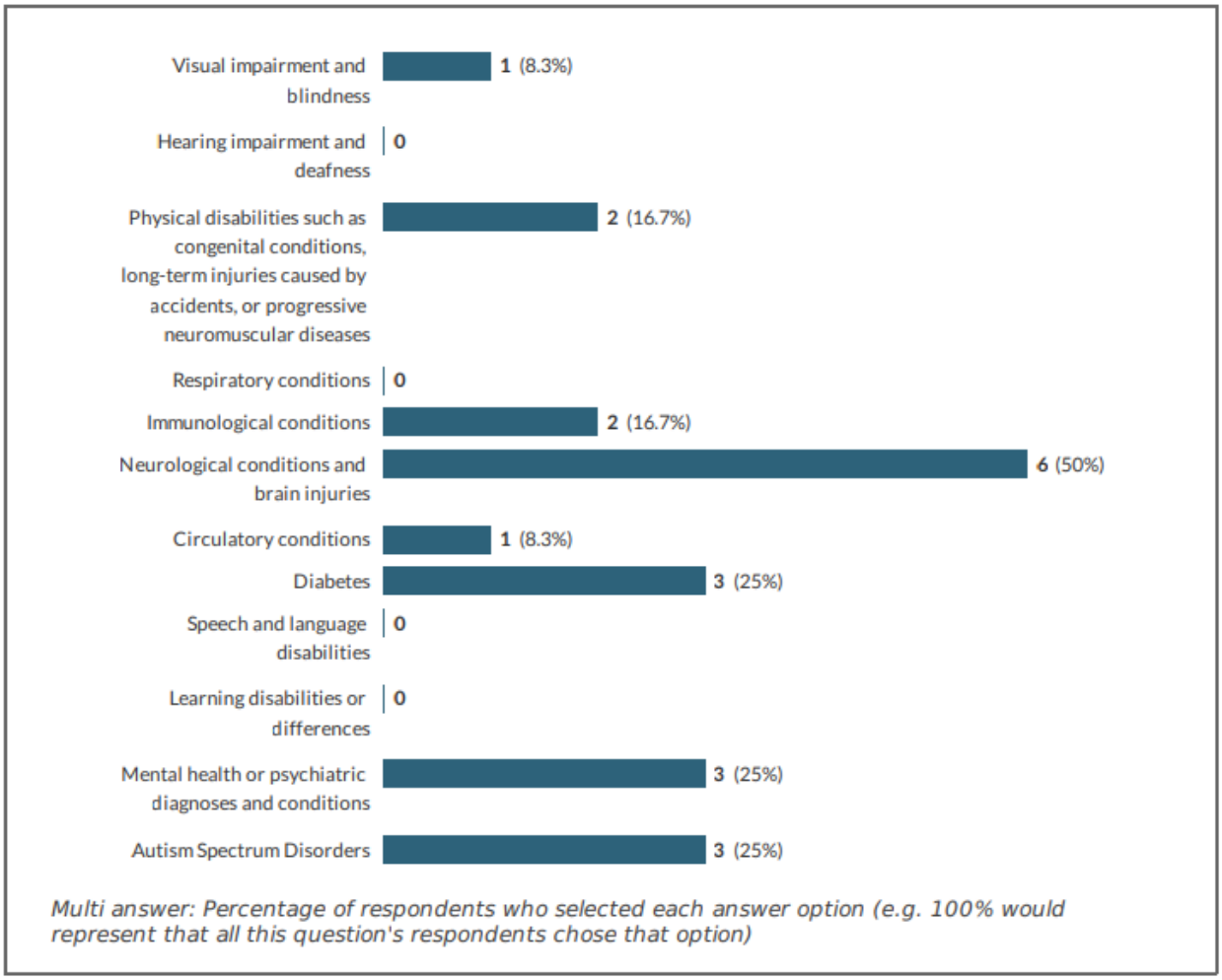

Figure 4 Disability or condition

Student Experience of the OU Application Process

Of the participants, ten (83.3%) spoke to the student support team and of those people four (66.3) found the process helpful. The application process was successful for all except one participant. Of the 6 (50%) of those wanting support this ranged from:

‘ I wasn't sure how and when to apply. The staff helped me enrol. (Participant M5)

Only one person was dissatisfied with the application form

I could not easily access digital downloadable forms (Participant M 6)

The application process was a positive experience for the majority of participants and in a multiple choice answer although 25% of answers were negative.

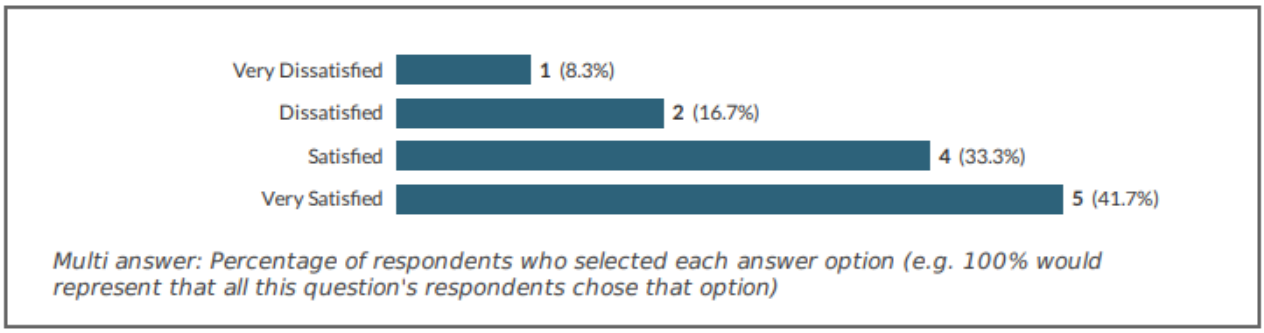

Figure 5 Information supporting students with disabilities

Support given to students from different cultures was again very positive with only one person demonstrating their dissatisfaction with the support they had received.

The section on access to the Student Support Team and the Educational Advisory was universally positive although 30% of respondents found it difficult to get information in relation to their disability support needs.

Accessing information to cultural support needs was slightly less positive although 80% of were still positive about their experience with a similar

percentage reporting that they were confident that they were going to be supported academically. Although there only only two respondents who were negative and this may be the disadvantage of a small research population size it still represents 20% of the sample.

The majority of participants had a positive view of registration; however, the process of registration was viewed negatively with 51% of participants stating that this process was unclear.

When given the opportunity of making specific recommendations these included:

> In this context It isn't clear what the definition of "Disability" is and if it applies to me if at all. (Participant M4)
>
> An option to listen to a page and listen to the weekly activities. (Participant M3)
>
> Dedicated side page on the OU website for those that are unfamiliar with the structure of university education, many pages assumed familiarity and was a major cause of anxiety from a background of no exposure in family. (Participant M7)

The barriers to on-line study that people experienced included access to an appropriate computer device (40%), study space (60%) and poor internet access (40%).

Student Experience of OU Learning and Teaching

The main reason students had elected to join the OU was because it offered the course they wanted (53%) followed by access to learning material (50%) and ease of application (41.7%)

The availability of courses being on-line or face to face had similar responses in that both on-line and face-to-face were equally welcome with only one person registering their disappointment with both approaches to tuition.

The on-line material was accessible to 83.5% (n= 10) of students who had a number of positive comments, for example:

> [Course material is] accessible a few weeks before course beginning allowed extra study time before start, materials were easy to download, course structure in week format was easy to understand. (Participant M7)

Although a visually impaired participant pointed out:

> There is no option to have the online course material read aloud, for people with visual impairment. (Participant M6)

Obstacles to tutorial delivery

Eight participants expressed that they had experienced obstacles accessing tutorials. The reasons why included:

> The purpose of each tutorial feels somewhat unclear in the planner and booking them is an obtuse process spread across too many pages I have difficulty finding the link to the study room for sessions. Having a difficulty with verbal language, it is difficult to keep pace in tutorials due to monitoring the chat and tutor. (Participant M7)

> On an evening I have little energy to engage in tutorials due to my health problems. (Participant M8)

Study Support

The greatest amount of support received by the students was from fellow students and their tutor (70%). 40% of support was listed from the Student Support Team and Educational advisors with a final 60% of support coming from family and friends. Four participants (33%) had helped from institutions outside the Open University which include support from an employer, using the health to work programme or drawing on on-line resources such as youtube.

Resources

The majority of students (75%) had seen the accessibility and resources links on the OU website and the majority (n=8) had found them useful. When asked about the learning resources the responses were as follows:

- the majority had found the on-line course material helpful (83.7%);
- slightly more found the quizzes useful (90%);
- all students found the printed material of use;
- videos were largely found to be helpful although one person found them unhelpful;
- podcasts were not considered helpful with 18.2% of people finding them very unhelpful, 54.5% unhelpful; although 27.3% (n=3 found them helpful.
- the use of forums was divided almost equally between being helpful and unhelpful.
- just over half of respondents, 54.6%, felt that the study planner was useful.
- the on-line tutorials were not found to be useful by 36.4% of the sample (n=4) although 7 participants found them helpful.

The qualitative answers gave a little more detail about resources that students also found helpful:

You tube can sometimes explain a concept I may be struggling with. (Participant M9)

I struggled to get the daisy e-reader to work. Instead I use pdf to read it out to me. Being able to download course material was vital to me. (Participant M3)

The ability to download course material & have pdf read it to me. (Participant M6)

Assessment

When asked if the assessments were appropriate for them, 90% (n=11) of students agreed, stating that:

> They are both challenging and interesting, and push you to examine the subject matter more closely. (Participant M4)

> I was unsure of my own ability, and the assessment response has given me a confidence to continue. (Participant M6)

> Assessments are part of the process, they are okay. (Participant M9)

Although one student had a mixed approach to them:

> Yes and No, questions pertaining to the study planner/learning styles or areas not covered by the text books have been very difficult to tackle due to being abstract and somewhat divorced from the idea of engineering. (Participant M7)

Opportunities

As a result of my work on barriers and enablers for supporting students and my increasing interse in students and their mental health, I attended a presentation by Suz Corcoran and Cath Comfort about mental health and student engagement. This prompted a discussion on how we could integrate our research interests and research interests into a research project. This has

subsequently led to a successful pan-university bid on the barriers and enablers experienced by students across three Faculties in the OU

Impact

Student experience

- The challenge for this project was that very low student participants did not enable the findings to be generalised or to identify what were genuine outliers which could have been investigated more closely. That said, any participant who has expressed a view and contributed to a project has value and their views and experience have a moral and ethical right to be heard (see codes of practice The Open University 2021).

Teaching

- I have used this research project as a vehicle to underline how varied our students are to use that understanding to change my perspective by taking a more student/people centred approach to teaching. I ensure that I give teaching information before each session (staff or students) to take into account those may have dyslexia or other learning difficulties.
- I have given guest lecture sessions to students and staff about disability at the University of Worcester (UoW)drawing on this project to show some of the barriers to learning that people experience:

Strategic change and learning design

- As Student Support Team Academic lead I have given talks to Support and Educational Advisors about the barriers and enablers that our students experience that informs good practice . I have been able to pass on the positive experience that the participants have had of the support systems, registration process and contacts with the Advisors at the OU.
- Although this project was focussed at level 1 students, some of our students join the OU at Masters level and have not got appropriate academic learning experience. As Chair of T891 I have used this research experience to ensure that the refresh of this course was written taking that into account by ensuring that students had more links to study skills support. In response to question 23a, I have introduced a suite of study skills sessions that includes referencing, writing skills and data analysis to fill the gap in acadeic literacty that some students might have. This approach is being explored by other Chairs in F65 with a view to including that approach in their courses.

Recommendations

- The concept of barriers and enablers or what helps and what stops has been a very balanced way of investigating a project. The barrers elements identifies negative and what is getting in the way of a system, course or teaching strategy yet the enablers and what helps element helps to keep sight of what is working.

- Using a combination of closed and open ended questions in an on-line survey as a form of a mixed methods approach is useful as it adds both breadth and depth to the results and is straightforward to analyse..

Any other impact

- Working with colleagues from WELS, FASS and STEM, this project has led to successful funding for a Pan University project based on a similar theme but with the focus on mental health. I am presenting at the E&I ST conference about this project and the team have sent a conference application to BERA in September, 2025.

Dissemination

This project has been disseminated at eSTEeM events and has been included in subsequent bids for student wellbeing research. Findings have been shared at Scholarship Exchange meetings in E&I and at the Student Support Team conferences

Deliverables

Corcoran, C. (2020) Barriers and enablers to higher education: the experiences of disabled students from minority cultural backgrounds | eSTEeM

Corcoran C. (2023) Barriers and enablers to higher education: the experiences of disabled students from minority cultural backgrounds *eSTEeM Conference*

The findings of this research project have been used to gain successful funding for two further projects:

Patel, A., Corcoran, C., Jones, S., Burns, R. and Starbuck, S.(2024) - Empowering the Student Learning Experience through Support Network Mapping: an active learning workshop.https://www5.open.ac.uk/scholarship-and-innovation/esteem/resources/13th-esteem-annual-conference-2024-recording-day-one-parallel-session

Comfort, C. Corcoran C. and Corcoran S. (2024) Enablers and Barriers for students with mental health difficulties. This is a pan university project collaborating with colleagues from FBL, WELS and STEM and will examine the student experience of those who have mental health difficulties, focusing on the barriers and enablers to study, and looking at why students may not disclose mental health needs.

Figures and tables

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Villa-Nicholas, M. (2018) Teaching intersectionality: Pedagogical approaches for lasting impact *Education for Information Vol 34 No. 2 pp. 121–133*

University approval processes

If your project required specific approval from university committees, please provide the appropriate information below. This is a necessary requirement for future publication of outputs from your project.

- SRPP/SSPP – Approval from the Student Research Project Panel/Staff Survey Project Panel was obtained according to the Open University's code of practice and procedures before embarking on this project. SRPP ref 215-2022.
- Ethical review – An ethical review was obtained according to the Open University's code of practice and procedures before embarking on this project. HREC classified this as local evaluation research that did not require formal HREC review.
- Data Protection Impact Assessment/Compliance Check – A Data Protection Impact Assessment/Compliance Check was obtained according to the Open University's code of practice and procedures before embarking on this project in May 2022.


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