# Digital Accessibility in Learning: Survey Data Summary

Degree Programmes and Level of Study

Overall, there were 31 responses to the survey. 71% of the responses were from Undergraduate students and 29% were from Postgraduate students. Hopefully the answers received will allow appropriate changes to be suggested to both postgraduate and undergraduate programmes.
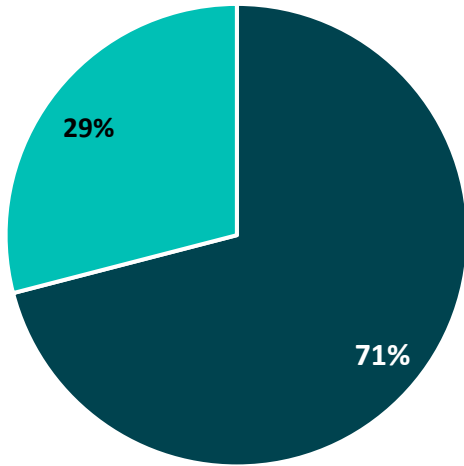
University of Bristol Faculty	Number of Students
Arts	5
Engineering	6
Health Science	3
Life Science	4
N/A	2
Science	3
Social Science and Law	8
Grand Total	**31**

■ Undergraduate ■ Postgraduate
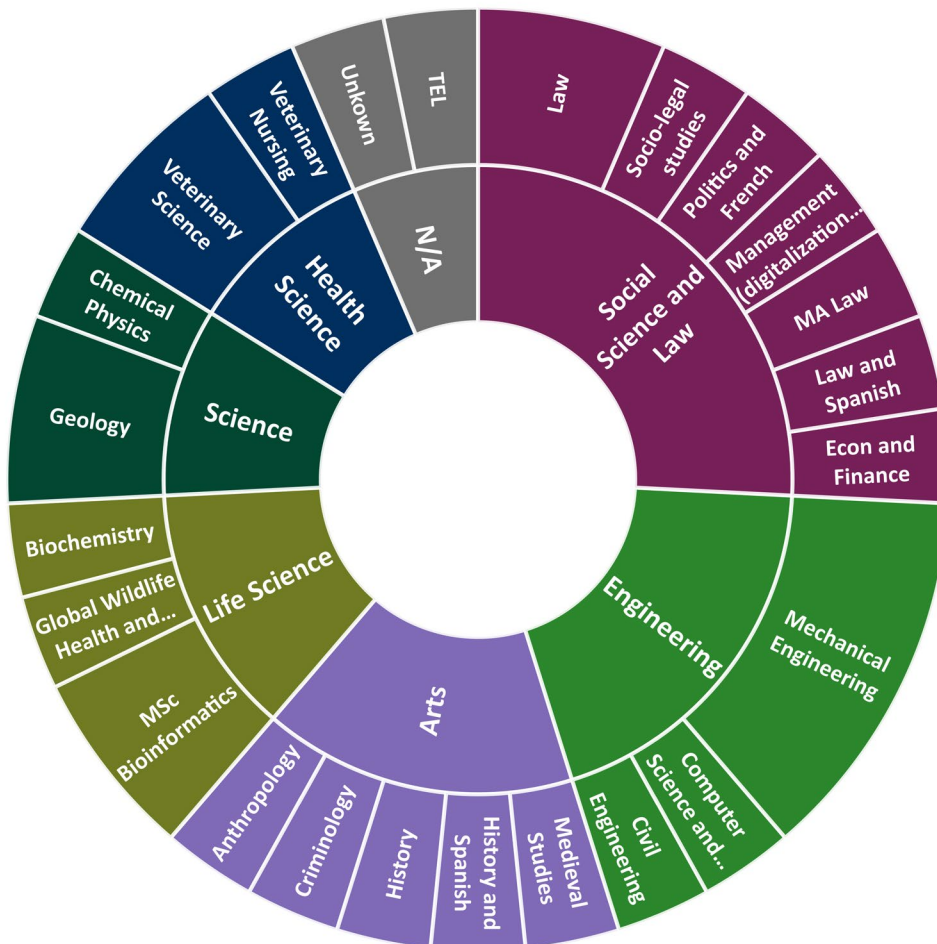
The survey reached students studying a variety of degree programmes throughout the different Faculties at Bristol University. Although it does not represent every degree in each faculty, hopefully this survey can help identify common accessibility problems across Bristol's degree programmes.
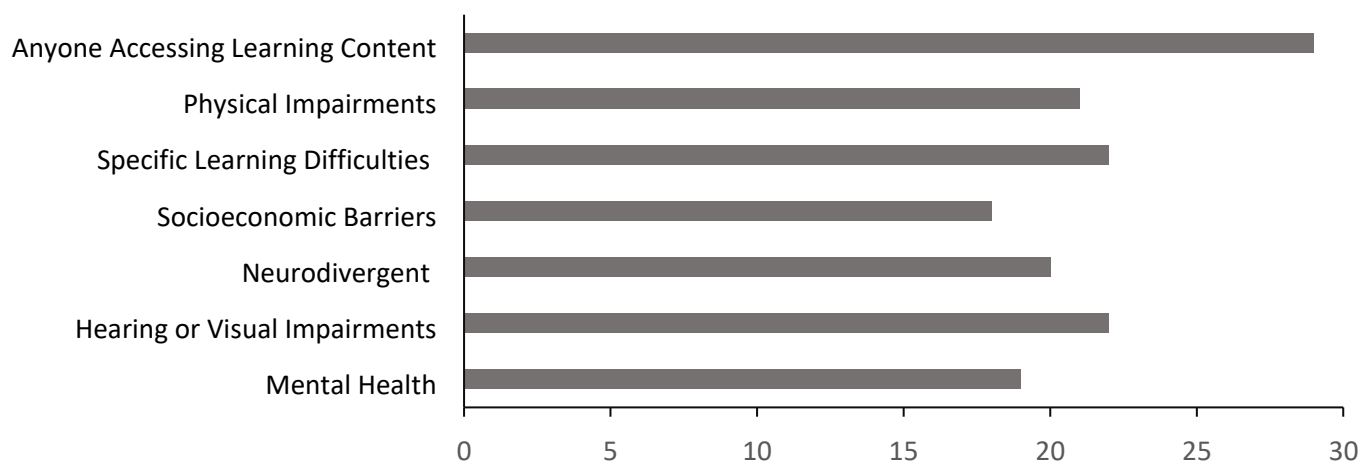
Students' Perceptions of Accessibility

There were 28 responses for "*What comes to mind when you think about accessibility?*". There were a variety of answers, with students generally seeming to have a fairly good grasp of what accessibility means or includes. There were some answers focusing on physical disabilities and one answer that was simply "not done properly", showing student awareness that accessibility improvements can be made. There was an overall theme of equality between individuals throughout almost all answers.

Summary of answers (some answers have been rephrased on combined for clarity or combined as they were repeated in several different students' answers):

- Accessibility can apply to many different groups of individuals who will need different provisions to achieve accessibility
    - Everyone should be able to engage in learning content and materials regardless of background or disability
    - Everyone can have the same educational and life experience when at university
    - "Ease of access for people with disabilities"
    - "Recognition of different disabilities and providing different means so that everyone has access to university life"
    - "Subtitles on videos"
    - Individuals from different socioeconomic backgrounds
        - "Students who may not have access to their own laptop or tablet are at a disadvantage"
        - Access to good enough Wi-Fi and equipment
- "Ensuring that services are made equally available to every individual, without discriminating against any group due to their abilities or facilities available to them"
    - Provisions to allow individuals to stay on track and not fall behind other students
    - Equality between individuals in their experience and what can be achieved
    - Information is provided in a user-friendly way and can be used by everyone
    - Ease of obtaining information and materials
- Focus on specific provisions that would/should be provided
    - Accessible formats of content provided
    - "More time for exams"
    - Being able to request support because of a disability and not being treated as if the request is a burden
    - "Making the necessary and reasonable accommodations to help all students perform to their maximum potential"
    - Access to certain places without being limited by disability or other specific learning differences.

The second part of this question, *"Who do you think digital accessibility is relevant to?"* was fairly consistent in the responses given. Some students only selected "Any student who accesses learning content" which was probably viewed to encompass all the other options, potentially explaining why some other options were chosen less frequently. Only two individuals did not choose this an answer at all. "Students with mental health concerns" or "Students with socioeconomic barriers" were chosen the least often. Visual and hearing impairments were more frequently identified as being relevant to accessibility, which we did predict when creating the survey based on people's general perceptions of accessibility.

Anyone Accessing Learning Content

Physical Impairments

Specific Learning Difficulties

Socioeconomic Barriers

Neurodivergent

Hearing or Visual Impairments

Mental Health

0   5   10   15   20   25   30

**Finding Information and Support Concerning Digital Accessibility**

The 5th question *"Where would you look for information and support concerning digital accessibility?"* reflected a lack of information for students as to where they should look for support. 54% of answers were "I don't know", and students who suggested places where they think they should look for support also expressed uncertainty. Some students expressed that they do not understand enough about digital learning to know where to look.

Suggested places to look for support were:

- University website
  - IT help desk
  - Help service
- DEO
- Blackboard
- Disability services
- Their department
  - Programme director
  - Tutor
 - Provider of the digital content

It is clear there needs to be better direction for students looking for support, with many students not knowing what they are looking for or where to look. At the start of each year or term this information should be clearly provided to students so that they know what support is available to them. Based on the previous questions, students might not even know they can get support for mental health problems or socioeconomic limitations for example.

Question 12 *"Do you have any digital accessibility needs?"* applies to this question as well. 74% of individuals either had accessibility needs or did not know if they did. If students do not know where to find accessibility information, they will continue to not know if they qualify for additional support. It is also possible that some of the students with known accessibility needs also don't know where to look for help.

Yes
35%

Don't know
39%

No
23%

Rather not say
3%
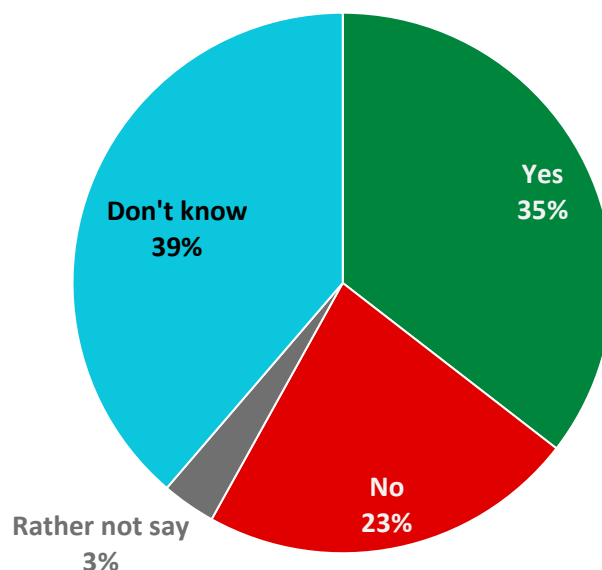
Accessibility of University of Bristol Courses

In question six we provided a definition of accessibility so that individuals would be informed when they answered this question. We looked at 10 aspects of courses, as well as the overall course with different options for how accessible those aspects are. When looking at a variety of degree programmes like we are here, it is important to identify common problems with the way content is provided so that any large changes that need to be made or major concerns can be recognised.
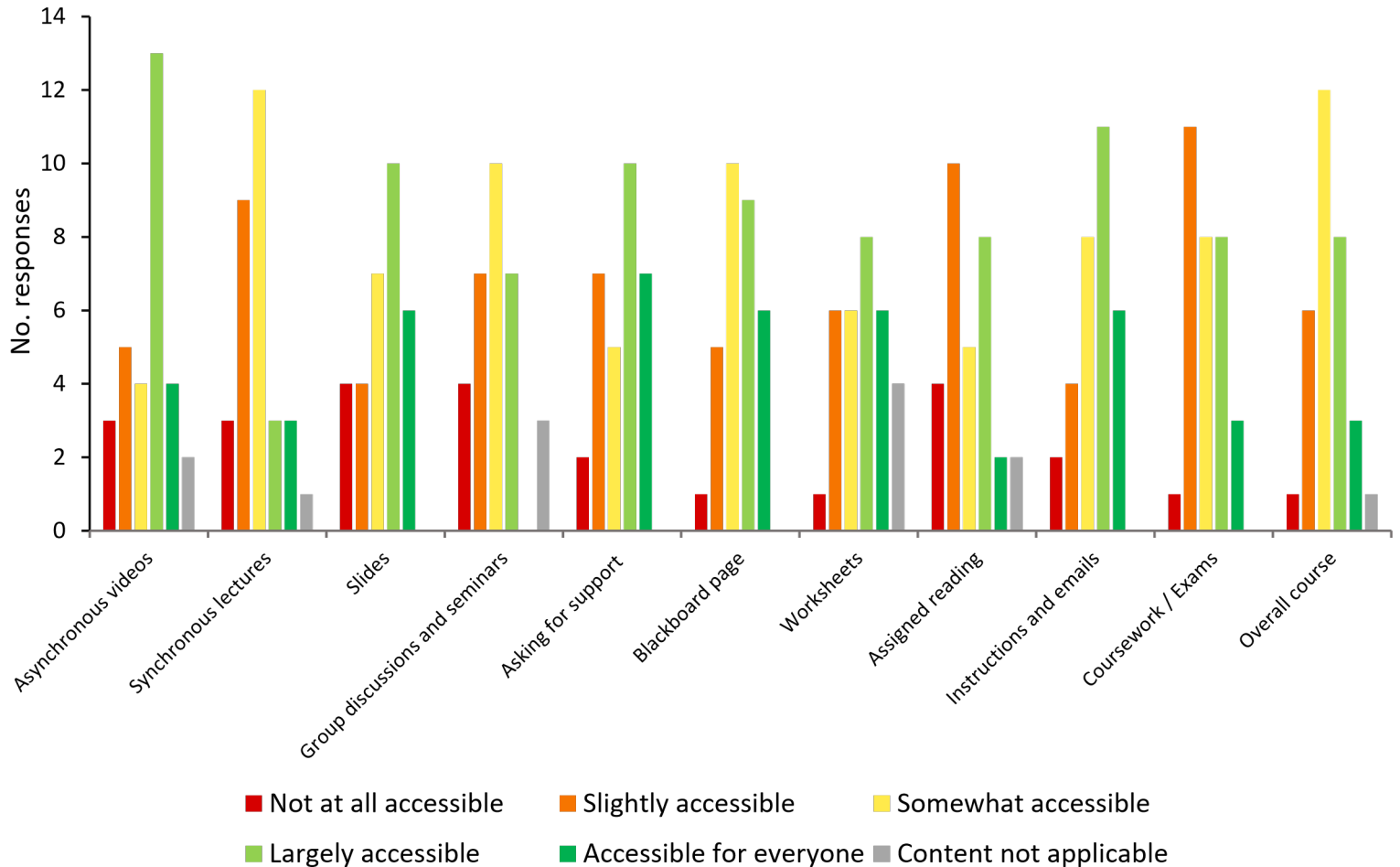
Students seemed generally satisfied with the accessibility of asynchronous videos and slides where it was applicable. Responses were predominantly "largely accessible" so there are still some areas this content could be improved. Based on later questions the main concern in the asynchronous content seems to be captioning, which has been identified as an issue by the university already. Synchronous lectures, assigned reading, group discussions, and coursework/ exams were all identified as having accessibility issues. These areas should be explored further to determine where students feel the problems lie. This was partly explored in the following question *"Why have you given these ratings? Is there anything you think is done well? Is there anything that could be improved?".*

22 students provided answered this optional question. The answers have provided a variety of opinions on accessibility of courses and the issues in the courses, as well as what students like about them. This was especially beneficial as several were students' personal experiences not just suggested experiences of others. Some students also mentioned they had a known disability when answering the question making them very valuable opinions when tackling accessibility. Answers below have been summarised and when directly used are indicated in quotes.

What the students liked:
- Having lectures in person.
    - Avoids technical issues – "In person teaching is good as it means despite however many technical issues may occur, there is still a lecturer at the front that can shout knowledge at you"
    - Can be more engaging and interesting – online lectures are "less fun now than they used to be"

- o Students feel that the pre-recorded lectures lack the character and interaction that in person lectures provide.
- Having the option of doing work online if that learning style suits you better
- Online exams mean you can do them from anywhere
- All lectures are recorded in case you miss them or can't go in for them
- Extra time for exams
  - o "Being provided 25% extra time in exams is extremely helpful and a standard access requirement."
- Online assigned reading and eBooks so that students can still access content when studying from home

What the students thought could be improved:
- Replay and Asynchronous Lectures
  - o Replay recordings of lectures can be slow to upload, have upload issues or captioning problems.
  - o For some people Microsoft stream videos do not work on certain browser types and the captioning and transcript cannot be viewed simultaneously. Some lecturers have not successfully linked these videos making it harder for students to find. Microsoft stream is often the only captioned video option.
  - o Can be difficult to stay engaged with asynchronous content as lectures are generally reduced purely down to content.
  - o Captioning problems on videos
    - ▪ Captioning not available
    - ▪ Captioning incorrect
    - ▪ Captioning is not clear and is hard to understand without a transcript which isn't always available
  - o Group discussions and seminars not uploaded as recordings meaning it is harder to catch up if you miss them. Students want them to also be recorded even just audio recordings so they feel they aren't missing important content if they can't make it in.
  - o Content is not available to download
    - ▪ If there is poor Wi-Fi accessing and watching recorded lectures can be very difficult with buffering and crashing. When videos are available for download, they can be watched anywhere without delays.
  - o Student with dyslexia and dyspraxia finds that the asynchronous lectures can take them double the time of their peers to complete
- Attendance Being Taken in Lectures
  - o Find it stressful that attendance is taken and feels that it is an inaccurate way of measuring engagement and wastes time at the start of lectures.
  - o Find it excludes individuals that have different working styles and might prefer working online.
- Exam and Coursework
  - o Concerns about students from lower income backgrounds having less suitable Wi-Fi, equipment and environment for doing exams
  - o Online exams do not work for all exam types
  - o Poor Wi-Fi connection can make online exams stressful.
  - o Relies on technology functioning perfectly throughout the exam
  - o Group presentations and exams are not flexible enough and can be very stressful for those with anxiety
    - ▪ Said that "None of the above will ever be perfect for every person that uses them, but general improvements could still be made across the board" - some more flexibility in options would help students.
  - o Although extra time can be provided for exams it is not provided for coursework and students are expected to complete the work in the same time as peers without specific accessibility requirements
    - ▪ Student mentioned they had dyslexia and dyspraxia and said "Realistically it takes a student with specific learning difficulties significantly longer to do the required reading/ research for

an essay, process the information, collate the information, plan an essay coherently and put their thoughts on to the page, then proofread an essay that will likely have more grammatical, spelling and structuring errors than their peers. however, we are expected to have the coursework submitted at the same time as our classmates."
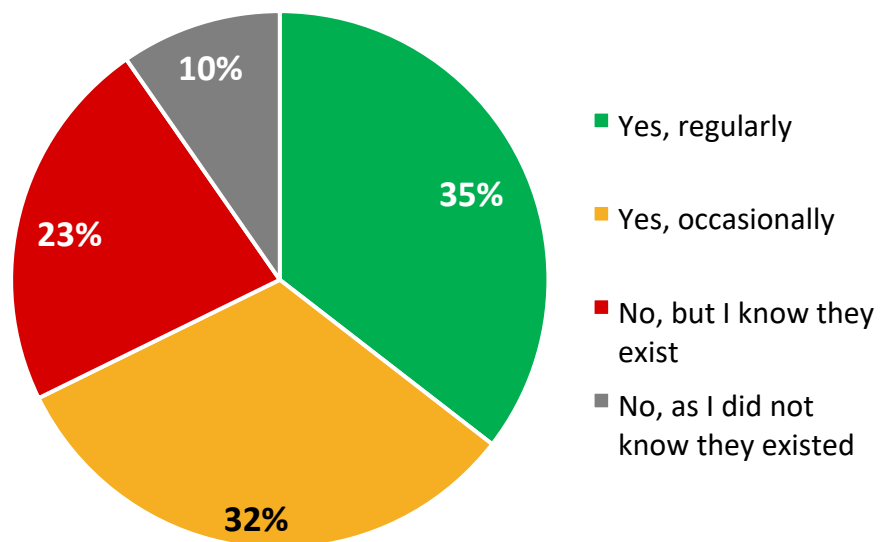
- Blackboard
    - Inconsistency on Blackboard
        - Can be a hard interface to use and navigate
        - Several people said that they find layout "confusing" or "hard to follow"
    - Padlets and Q&A boards can be neglected online meaning that students questions are not answered or are answered very slowly
    - Without good Wi-Fi, Blackboard can become unresponsive or very slow making it hard to upload work and find course content
    - Timetables are not reader friendly and students with learning specific learning differences can find them hard to understand
    - Different courses and modules or different lecturers will have different layouts for the blackboard pages making it hard to navigate and find things.
        - Find it a bad system for navigating asynchronous material and knowing what needs to be done.
- Reading and Worksheets
    - Textbooks can be too expensive for students to afford and if it is not available online there are very few available in the library, so students struggle to access reading for their course
    - "Worksheets for practicals should be printed and handed out to students" as well as being provided online as not all students have access to printers or technology to easily access them and make notes on them online.
    - Beeline reader access is only for specific content and having access to this technology would allow students to also do reading outside of the selected material.
        - "It's great that the University has access to BeeLine Reader for certain selected readings, but because I have to do a lot of reading for my course outside of the selected materials, I find myself wishing that we had access to BeeLine for ourselves. That way, we could use it to help speed up the pace at which we get through extra reading outside of mandatory texts."
- Transcripts, Slides and PDFs
    - Inconsistency of lecture slides
        - Lecture slides laid out in different ways with different lectures and lecturers
        - Would like for PowerPoints to be the same format as much as possible within a course or module to make it easier for individuals with specific learning differences or visual impairments.
    - Transcripts for lectures are often not available which many students rely on when understanding content.
        - Would like access to "transcription technology for recorded lectures" (several students mentioned this)
    - Digitised versions of PDFs that can be read by screen readers
    - Limited alternative formats, particularly in courses which are very content heavy making it harder to access.
    - When lecture slides have a quiz featured, they will not upload the slides prior to the lecture to prevent cheating on the quiz
        - This prevents students with specific learning differences from preparing before the lecture making it harder to follow.
        - Would benefit from all slides being uploaded before lectures and if there is a quiz then remove that from the uploaded version of the slides
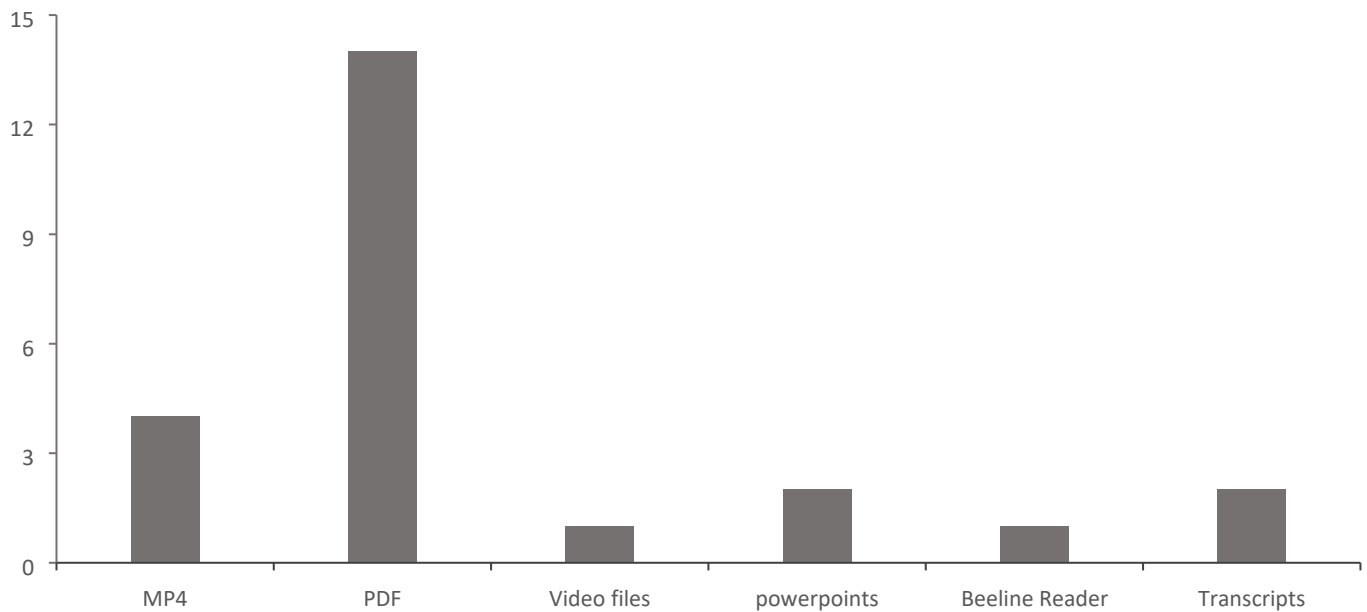
- Support
  - More scheduled one-on-one sessions with tutors or teaching assistants to discuss their course
  - Seminars, although effective educationally, can be very stressful or distressing for neurodivergent students or students with mental health conditions
    - "Tutors 'pick' on students" to talk. Students want the tutors to be better educated on this and approach it differently, so students are not afraid to attend their seminars and discussions.
  - In group discussions or content with high levels of collaboration it can be harder to engage, and the noisy surroundings can make it harder still.
  - "As a sufferer of chronic invisible illness, I do not feel as though my disability is recognised or supported in all aspects of my university life."
  - "I am still waiting on an email to inform me about what measures are put in place because of my disability and I have still not heard back from them after 3 weeks. I have not been given extra time on work and a lot of the matters I cannot complete within the time frame. I am very behind on work despite working 8-hour days just to try keep up"

Alternative Formats

One accessibility feature is alternative formats which are usually available for teaching content. Very few students didn't know that alternative formats were available and 67% of the students use them some of the time or regularly. This provides evidence that supports the provision of more alternative formats for all content as 2/3 of the students in the survey make use of them.

There was some variety in what alternative formats were used by the students in the survey. PDFs were most regularly used instead of documents. Some students also commented that they find PDFs easier to annotate with notes on their device, or that PDFs are easier to zoom in on than docs. MP4s were also described as being helpful when the original files will not play but are not always available.

Pie chart segments:
- 35% – Yes, regularly (green)
- 32% – Yes, occasionally (yellow)
- 23% – No, but I know they exist (red)
- 10% – No, as I did not know they existed (grey)

When asked how useful alternative formats are, most of the individuals who responded said that they were extremely useful. If alternative formats were more readily available for all content they may be used even more.
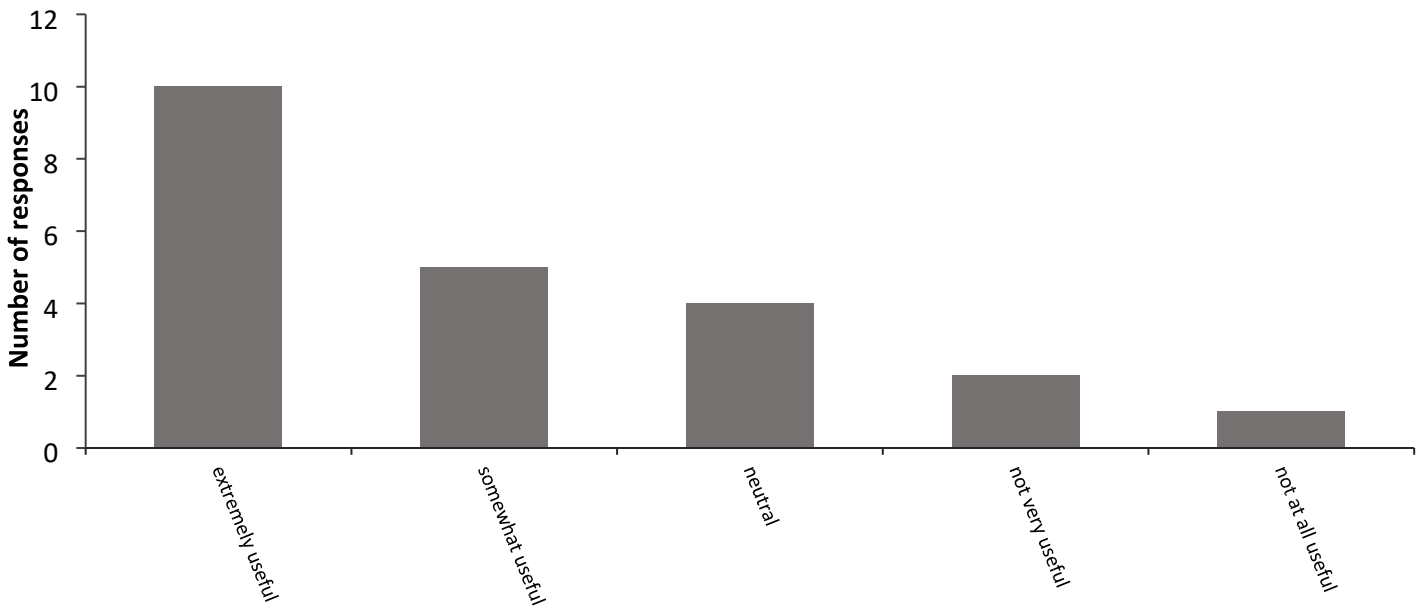
We also asked *"Do you ever use accessibility checking tools when making content to present to your peers?".* This question did not apply to many of the individuals completing the survey, however, some students do use this technology when creating their content.

Unfortunately, we do not know how staff feel about alternative formats, creating them, and checking content for accessibility. It is possible that many students do not think about checking their own presentations and work to see if it is accessible for their peers. Further education on accessibility and information on accessibility being more readily available may change this. It is reassuring to know that students are already making an effort to make content more accessible for their peers.
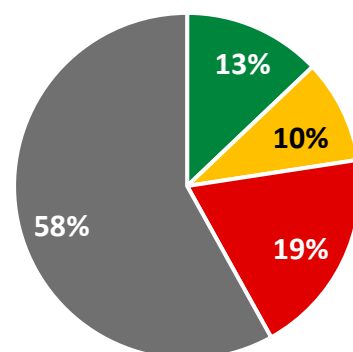
Yes, frequently   Yes, rarely   No   N/A

Final Thoughts on Accessibility at Bristol University

Our final question asked for suggestion of how the digital experience at Bristol University could be made more accessible. What was the most present in these answers were suggestions for changes to lecture videos and to Blackboard.

Summary of answers:

- Blackboard issues
    - The way that Blackboard is laid out between courses and modules varies, making finding files difficult as the route to get there is different each time
    - Want a "better interface for searching for specific content" on Blackboard
    - Want "an 'Accessibility Settings' function" for Blackboard which allows easy changing of the "contrast, text size and text-to-speech, etc."
    - Want a "clearly marked tab on Blackboard and My Bristol" specifically for accessibility, showing a "broken down list of all accessibility things available"
    - "Assignments accessible in one location" on Blackboard
- Content access
    - Captions and Transcripts
        - Captions on all videos and lecture content
        - Transcripts available for all lectures either on PowerPoint or separate
        - "Coherent subtitles on lecture videos!"– Find is very for students with specific learning difficulties or neurodivergent students (from student who mentioned that they are neurodivergent)
    - Pre-recorded content available for download to help overcome problems caused by poor Wi-Fi
    - Accessing documents and reading
        - All PDFs accessible for screen readers
        - Text-to-speech options for instructions
        - Make text easily convertible to text documents which text to speech software often requires
        - Some assigned reading is not compatible with accessibility software but could be if alternative formats were provided
        - Beeline reader membership for all content
    - Accessing lectures
        - Have PowerPoint versions of lecture slides available, not just PDFs
        - Lecture slides uploaded prior to the lectures
        - Make sure everyone has Wi-Fi and computer access when not in term time
- Get student opinions
    - Ask students with accessibility needs what they would like
    - "Individual contact with disabled students to figure out what we need on an individual basis"
    - Maintain communication with students with accessibility needs throughout the year not just for exams and at the start of years
    - More time to complete coursework based on what students need
- Learning resources for how to use the digital learning platforms used by a course which is provided before the course starts
    - Not all students will have had laptops or had to use anything like this before university
    - Encourage and explain the use of alternative content formats
    - Help students be more aware of what should be provided for digital accessibility
    - Show students how to access relevant resources.