Supporting Inclusive Teaching Practice within a UK Further and Higher Education Context

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Abstract

The proportion of students with disabilities in Further and Higher Education has increased by 60% in recent years (Oxford Brookes University, 2014) with the highest rates in creative institutions (Richards and Finnigan, 2015, University of Leeds, 2015). Students with a disability are less likely to get a good degree (2:1 or above), more likely to perceive their courses as low quality, and have a lower rate of employability than people without disabilities (Disabled Students Sector Leadership Group, 2017). The current research project aims to respond to such findings by supporting teaching staff to cultivate a culture of inclusive practice. This will be achieved by conducting a literature review, internal and external staff interviews, a student survey, and sharing comprehensive findings and recommendations.

Keywords: disability, inclusive, adjustments, evidence, recommendations

Introduction

Inclusive educational environments have been shown to impact positively on student satisfaction and grades (Oxford Brookes University, 2014), attendance (Babb & Ross, 2009) and can remove barriers to learning (Equality Challenge Unit, 2013). They also benefit all students not just those with diagnoses such as autism, dyslexia and ADHD (Bhagat & O'Neill, 2011). This is, in part, because the increased choice provides all student with opportunities to connect to learning in a way that is relevant to them (Oxford Brookes University, 2014). An inclusive approach can also save time for teaching staff as it reduces the need for individualised plans (Equality Challenge Unit, 2013). These perspectives can be valuable in gaining the endorsement of teaching staff and senior leadership which is crucial in developing a positive culture of inclusivity (Disabled Students Sector Leadership Group, 2017).

The movement towards an inclusive culture in Further and Higher education is supported by UK law which protects people with disabilities and promotes the use of reasonable adjustments (Equality Act, 2010). The Higher Education sector is also supported by government funding that enables people with additional needs to access education. This is called the Disabled Students' Allowance (DSA) and it offers a range of options including specialist one-to-one support and assistive technology for people with a disability (Gov UK, 2018). This support has however been reviewed and there was a decision to remove funding for certain DSA support, including note-takers for students with dyslexia, and a cap was placed on annual spending (Gov UK, 2014). There are views that these changes in funding provide an opportunity to further embed reasonable adjustments into teaching practice (Bhagat and O'Neil, 2011) which can lead to less dependency on DSA support and

increased student autonomy (Warwick University, 2016). The organisation responsible for delivering DSA echoed this sentiment when it stated the fund should only be used as a top layer of support with reasonable adjustments and institutional support underpinning it (Student Loans Company, 2016).

There is a high proportion of the student body with learning support needs that can benefit from reasonable adjustments (The Higher Education Academy, 2013). Some of the most common reasons for additional learning needs are neurodiversity's such as dyslexia, ADHD, dyspraxia, dyscalculia and autism (Healey, 2010). The proportion of the student population with a neurodiversity can be as high as 28% (The National Union of Students, 2016) and there is particularly high prevalence in creative institutions (Richards and Finnigan, 2015, University of Leeds, 2015). This can present challenges to creative institutions such as Ravensbourne University London as there are higher demands on resources to support students (The National Union of Students, 2016).

One of the other prevalent areas of support needs in education is students who experience problems in their mental health (The National Union of Students, 2016). The percentage of students at Ravensbourne University London, who reported mental health problems was 3% (Ravensbourne, 2017a), which is relatively low compared to estimates for Further and Higher Education overall, which range from 27% (Aronin and Smith, 2016) to 78% (De Pury, 2016) with demand for support services at an all-time high (Weale and Perraudin, 2016). Ravensbourne University London's figure of 9% for students with neurodiversity's (Ravensbourne, 2017a) also appears lower than that of some other creative institutions (Richards and Finnigan, 2015, University of Leeds, 2015). It is, however, common for University statistics to underestimate the prevalence of mental health problems because students may fear discrimination in the application process and choose not to declare their support needs at this stage (Waters et al., 2012).

Ravensbourne University London has a total rate of 16% of the student population with declared disabilities including long-standing illnesses (2%), autism (1%), and other disability (1%) (Ravensbourne, 2017a). The outcomes for students with a declared disability are generally positive, with a higher proportion achieving a good degree (1st or 2:1) than people who identify as not disabled (Ravensbourne, 2015). This compares well to outcomes for students with disabilities in the sector, who, typically, achieve lower grades (Disabled Students Sector Leadership Group, 2017). Ravensbourne University London has also committed to improving their offer by setting an objective of staff training in disability which is aimed at improving student experience, retention, and success (Ravensbourne, 2017b).

There are challenges to providing an inclusive environment within a creative educational context. There are up to 50% more disabled students in creative education environments compared to traditionally none creative education environments (Richards and Finnigan, 2015) which can have a great bearing on resources (The National Union of Students, 2016). Many creative courses have large group sizes and have physical demands including the use of cumbersome, unadaptable equipment (Richards and Finnigan, 2015). There are, however, opportunities in creative institutions, for example with assessment briefs, as students can be given a licence to use their identity and personal preferences more than in a more typically prescriptive environment (Richards and Finnigan, 2015).

A diverse range of teaching strategies are said to enable an inclusive learning environment (Corbett, 2001) and there are a variety of recommendations in the literature. For example, delivery of written course information such as handouts can be adjusted to address accessibility for students with neurodiversity's (Disabled Students Sector Leadership Group, 2017). Documents can be written clearly and succinctly which can be very helpful for people with autism who may find ambiguous written materials very challenging (The University of Edinburgh, 2016). Students with neurodiversity's often have difficulties with working memory which can impact on the processing of information (Bhagat and O'Neil, 2011) but can often have a strong visual memory (Grant, 2010). Handouts can therefore be made dyslexia sensitive by following certain formatting principles (British Dyslexia Association, 2017) and utilise visuals to structure information such as mind maps (Bacon & Bennett, 2013) which can assist recall of information (University of Sheffield, 2017). Materials can be delivered to students ahead of sessions to encourage preparation (University of Strathclyde, 2000) and can actually increase attendance at lectures in spite of fears of teaching staff that students would not attend if materials are sent early (Disabled Students Sector Leadership Group, 2017). Handouts can link to key learning objectives rather than providing all information (Oxford Brookes, 2017) which can reduce the chance of overwhelming students with neurodiversity's with too much information (Grant, 2010). These approaches have been shown to improve attendance and participation in course materials (Babb & Ross, 2009) and can be useful to all students not just those with neurodiversity's (Bhagat and O'Neill, 2011).

Audio recordings have been used innovatively, for example by offering an interpretation of briefs or delivering personalised feedback (Leeds University, 2014). Podcasting has been used to create formative assessments linked to course material that can be listened to repeatedly (Morris, 2010). Students can also be encouraged to audio record sessions to allow the opportunity to listen again (Plymouth University, 2016). Such adjustments have been shown to increase engagement (Leeds University, 2014) and performance for all students (Morris, 2010) particularly for those with neurodiversity's (Plymouth University, 2016).

There is a high prevalence of mental health distress in the education sector as discussed previously (Aronin & Smith, 2016, De Pury, 2016). Close liaison with student services and signposting to the support available is a key aspect for all teams to consider (Oxford Brookes, 2014). There are, however, other areas that can be supportive to students in the curriculum which can promote good mental health too. Group working and presentations can be a particularly challenging area, especially for people with anxiety (Plymouth University, 2016) and those on the autistic spectrum (Autism.org.uk, 2017). These areas can however provide opportunities for growth in confidence and resilience when delivered appropriately (The Higher Education Academy, 2013). In terms of presenting work, courses can offer a graded approach to presentations which allows the student to build confidence and resilience over time (Bhagat and O'Neill, 2011).

Students can also thrive by working on their strengths and collaborating with others to improve work, refine talent, and enhance resilience (Schreiner, 2010). Methods of self-appraisal can help students cope with critical feedback and understand their areas of development (The Higher Education Academy, 2013). This proactive approach can help to build self-awareness of ability and encourage positive collaboration to maximise the quality of work produced (Schreiner, 2010). The promotion of collaborative working can therefore be

positive for individual mental health, group cohesion, and talent development (Schreiner, 2010). It can also promote emotional resilience which is argued to be a valuable factor in maintaining a healthy state of wellbeing and progressing academically (Walker, Gleaves and Grey, 2006).

In carrying out a research project on additional needs of students and, subsequently, moving towards a more inclusive educational environment, previous work has recommended the direct involvement of staff and students, particularly those with disabilities (Disabled Students Sector Leadership Group, 2017). Projects can be carried out using interviews (Karousou, 2017) and surveys (Fuller et al., 2008). The approaches to capturing data will be explored more fully in the methods section but we acknowledge the importance of the views of stakeholders in any change process. Once data has been captured and implications drawn, it has been encouraged that any process of change has the buy in of senior management and includes training staff (Disabled Students Sector Leadership Group, 2017). This is a process that Ravensbourne University London are committed to as one of their strategic objectives (Ravensbourne, 2017b).

The current study was designed to gain the perspectives of staff and students using evidence-based questionnaires (Fuller et al., 2008, Karousou, 2017), based on the literature search above, and to create and offer key recommendations for teaching staff and senior management that could support further change in future (Coertjens et al., 2012).

Method

Design

This research used a mixed-methods design, incorporating staff and student questionnaires that included a combination of closed and open-ended questions on prominent areas of inclusive teaching for people with learning support needs.

Participants

The staff respondents were internal (n=12) and external (n=3) teaching staff. The student questionnaire was sent to all students in Ravensbourne University London (n=2032) except for those in their final undergraduate year because they were close to deadlines for final submissions.

Materials

The questionnaire for staff (Appendix 1) and student survey (Appendix 2) were developed using existing literature to identify appropriate methods and content. Both questionnaires were approved through Ravensbourne University London ethics committee prior to use. Tema George (Research Partner and Senior Study Skills Tutor) (hereby referred to as George) and we agreed a standardised process to approach interviews with staff.

The student survey (Appendix 2) was created in Online Surveys and included an initial preamble consisting of information about data protection and the purpose of the study. The e-mail message specified the survey was for students and included the link to the questionnaire.

The questionnaires included closed and open-ended questions on key topics including the use of audio (Leeds University, 2014) (Morris, 2010), formatting of written documents (Bacon & Bennett, 2013) (British Dyslexia Association, 2017), reflection on general inclusive practice, collaboration (Schreiner, 2010) (The Higher Education Academy, 2013), and preferences for what they would like to see happen if findings were presented in a workshop for colleagues internally.

The student survey (Appendix 2) followed previous research into inclusive education by including a variety of question types. This included one binary question (yes/no) identifying if there is a learning support need (Karousou, 2017), one open question about any feedback about inclusive practice preferences (Salmon et al., 2015), and five Likert scale questions to rate students' understanding of briefs, how briefs are explored in class, collaborating with fellow students, and awareness of support available through student services. A Likert scale was chosen as it has been used in researching inclusive practice with students before and favoured when surveying a large sample size as a more precise statistical measure can be achieved (Fuller et al., 2008). This measure could then be repeated annually, longitudinal studies using Likert scales can produce insightful findings and represent a change over time (Coertjens et al., 2012). A large initial sample of invited participants can also be advantageous especially given the commonality of low response rates in student surveys (Gibson, 2012, Thompson, 2012). Dictaphones were used to record the interviews.

Procedure

The questionnaires were emailed to staff and student in May 2018. The Online Survey system was utilised to design, distribute, and analyse findings of the student survey.

Both student and staff data were analysed, the staff questionnaires were thematically analysed with the aim of identifying themes pertinent to the study. The student questionnaires were thematically analysed for the open questions and statistically analysed for the Likert scale responses. Similarities and differences were identified in the student data set with findings linked to the study and subsequent workshop. Thematic analysis has been described as a 'process of identifying patterns or themes within qualitative data' (Maguire and Delahunt, 2017, p. 3352). We themed responses to questionnaires, represented themes visually in graphs, and summarised the salience of these themes. This is explored in the results and discussion sections.
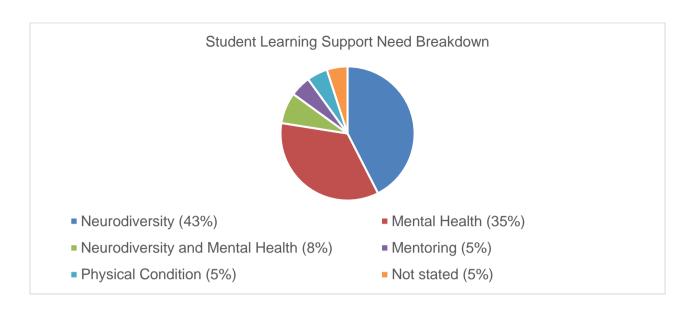
Results

In this section, we used descriptive statistics to show how student views varied to learning support needs and its associated support. We then conducted thematic analysis to explore both students and staff views on what supports could be offered

Student Questionnaire - Quantitative Analysis

The below comprises of the analysis of the quantitative responses by students in the student survey (Appendix 2).

Out of the 104 students who responded to the survey, 40 of them (38%) report that they need learning support, whereas 64 of them (62%) stated that they don't

Student Learning Support Need Breakdown

- Neurodiversity (43%)
- Mental Health (35%)
- Neurodiversity and Mental Health (8%)
- Mentoring (5%)
- Physical Condition (5%)
- Not stated (5%)

Q3 – *Do students think project briefs clearly written and understandable?*

Out of the 104 student responses, more than half of them (57%) Agree or strongly agree that project briefs are clearly written and understandable which is illustrated in Figure 1. Less than one-fifth of responses (19%) are negative ("Disagree" / "Strongly disagree"). This indicates that briefs are generally clearly written and understandable.
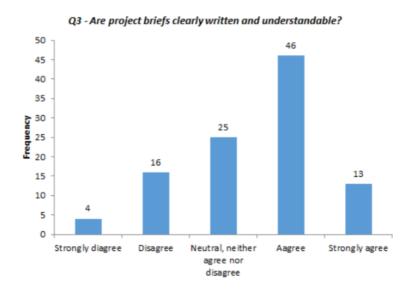

Figure 1: Do students think project briefs are clearly written and understandable?

More students with a declared learning support need answer this question positively compared to students with no learning support need (63% vs. 53%), as shown in Figure 2 there is no significant difference between the groups, but it highlights a positive response to how teaching staff create and disseminate the brief.
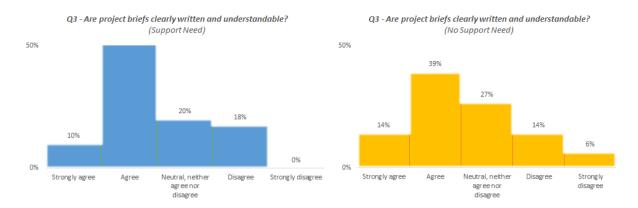
Figure 2: Breakdown between those with a learning support need and those without a learning support need on whether project briefs clearly written and understandable

Q5 – *Do students think their projects and abilities benefit from working collaboratively with your fellow students?*

Out of the 104 student responses, most common response (60%) is positive ("Agree" or "Strongly agree") illustrated in the right skew of the graph below (Figure 3). One fifth (20%) of the responses are negative ("Disagree" / "Strongly disagree"). Most people generally appreciate the benefits of working collaboratively.
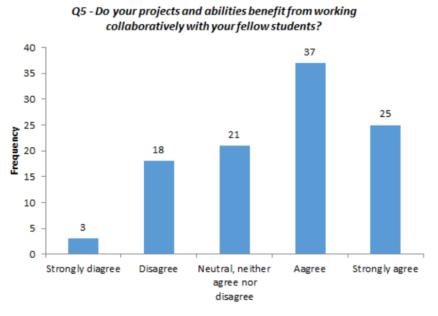

Figure 3: Do students think their projects and abilities benefit from working collaboratively with their fellow students?

Whereas comparing students with a declared learning support needs with students with no learning support needs in Figure 4, students without a support need were significantly more likely to "Agree" or "Strongly Agree" that projects benefit from working collaboratively (68%) compared to students with a declared learning support need (48%). This means that students with a learning support need are more likely to feel their work does not benefit from working with other students.
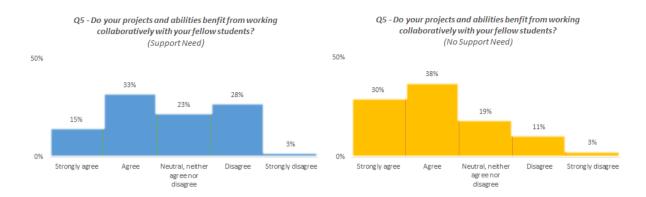
Figure 4: Breakdown between those with a learning support need and those without a learning support need about whether students think their projects and abilities benefit from working collaboratively with fellow students

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[1] Welch's t-test (https://www.researchgate.net/publication/301292970_Welch's_t_test)

Q7 – *Are students aware of the support available through student services?*

Out of the 104 student responses, most common response is "Yes," illustrated in the right skew of the graph below (Figure 5). Approximately two-third of responses (69%) are positive ("Yes"), one-third (31%) negative ("No").
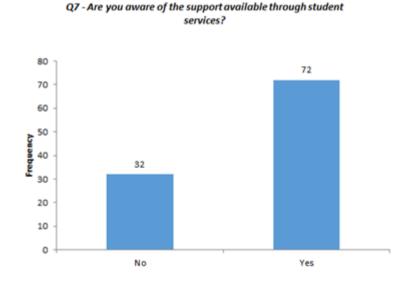

Figure 5: Are students aware of the support available through student services?

More students with a declared learning support need answer this question positively compared to students with no learning support need (73% vs. 67%) but there is no significant difference between them (see Figure 6).
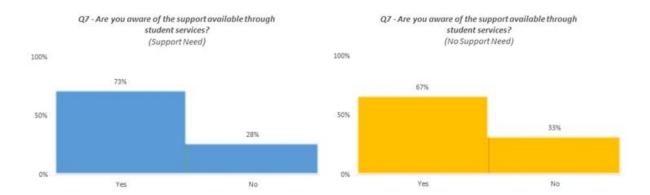
Figure 6: Breakdown between those with a learning support need and those without a learning support need about whether students are aware of the support available through student services

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[1] Welch's t-test (https://www.researchgate.net/publication/301292970_Welch's_t_test)

Student Questionnaire - Qualitative Analysis

The questionnaire had one mandatory open question (Question 8). See thematic analysis below (Maguire and Delahunt, 2017) (Figure 7).

Question 8 - Please offer any recommendations you feel would help the course become more inclusive so you can access it more easily, with consideration of your learning support need.
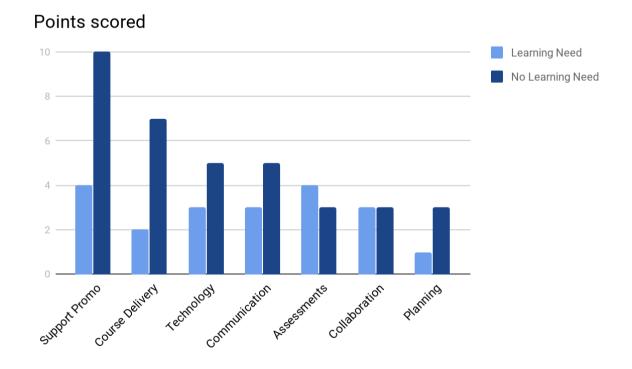

Figure 7: Please offer any recommendations you feel would help the course become more inclusive so you can access it more easily, with consideration of your learning support need.

There were 10 responses from students without learning needs compared to 4 with learning needs on 'Support Promotion'. Students requested more promotion of services including finance, study skills, and mental health support. Regarding 'Course Delivery', there was a consistency of responses requesting more time with teaching staff across both groups.

The 'Technology' theme included 5 responses from students without a learning need and 3 response from those with a learning need. There was a desire for broader access to course materials from both groups. In terms of 'Collaboration', there was some overlap between the groups on this area however students with a learning support need were more likely to want less or no group work altogether.

Students without a learning support need who spoke about 'Communication' students in both groups wanted more ways of using technology to contact their tutor and also wanted a friendly atmosphere in their groups.

There were 4 comments by students with a learning need on 'Assessments' compared to 3 comments from those students without learning needs. Remarks mainly focused on the accessibility of written briefs for both groups. Suggestions included writing briefs in clearer language and reducing word count. Students with a learning need requested more time with staff too and more time in sessions to ask questions about assessment briefs. One student with learning support needs commented on a different component of assessment by asking for less group presentations.

Comments on 'Planning' were made by 3 students without a learning need and 1 with a learning need. Students without learning need asked to be notified to bring more than their laptop to engage more fully in sessions, reduce last minute changes to timetable, and the student with a learning need asked staff to upload resources more dependably on the virtual learning environment.

Staff Questionnaire - Qualitative Analysis

The staff questionnaire (Appendix 1) was administered during May to September 2017 and included 9 internal and 3 external interviewees. The responses were analysed thematically (Maguire and Delahunt, 2017) and themes entered into bar charts to give a visual representation of the information. The two groups (internal and external interviewees) will be represented in the bar charts together as one group. This is because it was a small sample size and both internal and external teaching staff presented similar themes in their responses.

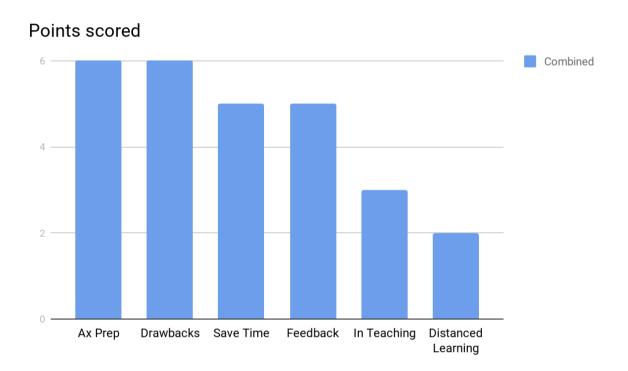*Q1: In which areas could it be most valuable to use audio recordings in your course?*

Points scored

Figure 8: In which areas could it be most valuable to use audio recordings in your course?

Comments around assessment preparation included using audio to prepare ahead of brief sessions, creating demos of how to do certain techniques, and to record briefing sessions so all students can listen back. Drawbacks included fear of breaking confidentiality of discussion if uploaded, problems of student understanding accent of teaching staff on recording, worries that students will not read brief if they have audio, difficulty of creating audio in loud environments, and considering alternatives for deaf students.

It was common for staff to experience audio saving them time, being useful for delivering feedback, embedding audio in lecture slides, and aiding some distance learning. One concern was about audio providing too much information, especially for students with a learning support need. One member of staff recommended maximum 4-minute audio files for use in teaching. Overall comments were mostly positive about the use of audio and some concerns provide useful feedback for final recommendations. For example, how can audio

be used to enhance the information in a brief without creating a situation where students do not read it? It was suggested that a disclaimer in the recording could help, explaining the audio helps but must be supplemented by reading the brief as well.

Q2: Please give some examples of adjustments regarding written materials (e.g. handouts, crib sheets, briefs) that you have utilised or created that are accessible?
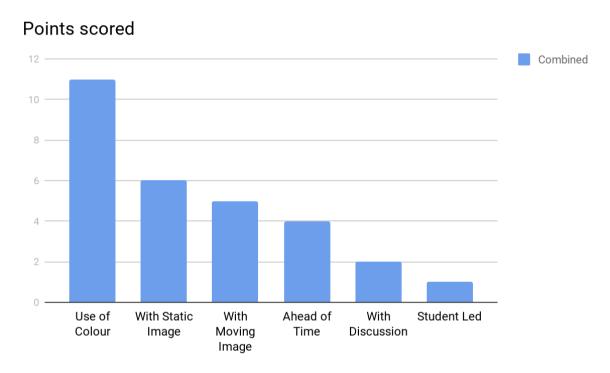
Points scored

Figure 9: Please give some examples of adjustments regarding written materials (e.g. handouts, crib sheets, briefs) that you have utilised or created that are accessible?

Internal and external staff considered some similar themes, when it came to the adjustment of written materials for teaching. Most comments about the use of colour remarked on the use of non-white backgrounds for handouts and all written materials (including PowerPoint). One of the internal staff used colour coding in briefs which received positive feedback from students. This mainly consisted of each brief having a colour tone that corresponded to the strand of the course being taught in class to help understanding. Some staff highlighted the importance of documents being delivered ahead of time, having an opportunity to discuss as a group, and one staff member recommended students collaborating to create materials more by using the technologies available such as google sheets and Nearpod. Overall staff appear to conduct inclusive practices and perhaps some of these ideas can be shared more widely.

Question 3) Please list some examples of where educational delivery (inside or outside of Ravensbourne) has been adjusted to be more inclusive to students (e.g. with mental health, physical health or neurodiversity's) within the following areas:
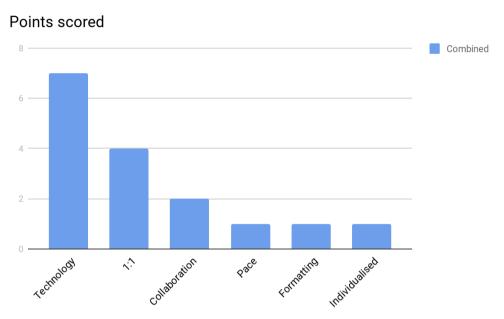
A) Teaching

Points scored

Figure 10: Where has delivery been adjusted regarding teaching?

There were similar responses to this question by the internal and external teachers. Technology featured as the main theme about adjustment to teaching methods. Adjustments can include using technology to open debates to wider audiences, to check in with student progress via weekly online questionnaires and using voting tools to get a sense of opinion in a group and open discussions. Generating more of a 1:1 ethos is viewed as important even if it is challenging from a time perspective. One teacher who has a large group suggested just getting to know the students by name makes a positive difference. Encouraging useful collaboration among peers on the course and cross-institutionally was viewed as useful. Taking regular breaks to support greater understanding and processing, formatting documents with minimal wording, and considering individual differences where possible were also highlighted in this question. This question seemed to bring various responses that consider the learning process of all students and recognises the importance of thinking about individual personalities and differences. Essentially making the student feel valued and considered.

Question 3) Please list some examples of where educational delivery (inside or outside of Ravensbourne) has been adjusted to be more inclusive to students (e.g. with mental health, physical health or neurodiversity's) within the following areas:
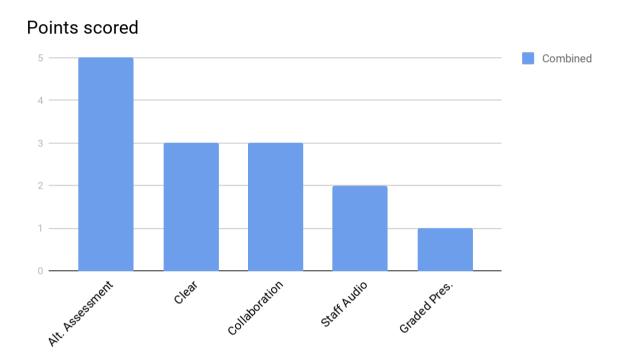
B) Assessment

Points scored

Figure 10: Where has delivery been adjusted regarding assessment?

Assessment produced a consistency in responses between internal and external staff. Both groups of staff discussed the possibility of doing alternative forms of assessment. For example, an option to do a visual dissertation, the choice of submitting audio or video for written assignments as an alternative to written and stopping written exams. Clear communication, whether written or verbal, was championed, this included having online message boards, checking understanding, and students sitting near the front of the group if they would benefit. Collaboration was viewed as helpful to embed knowledge of the course, to provide presenters with feedback from their peers in real time, and helpful to students with neurodiversity to make links in their understanding. Staff can also use audio to pull out key points of written documents to give a synopsis of information. One staff member mentioned using graded presentation in assessments to help students gain confidence rather than going straight into challenging scenarios. For example, allowing students to present using technology such as audio, then present to a small group etc.

Question 4) Please give an example of a situation in which you have seen students' reflecting on their strengths, limitations, and collaborating to enhance their work and resilience?
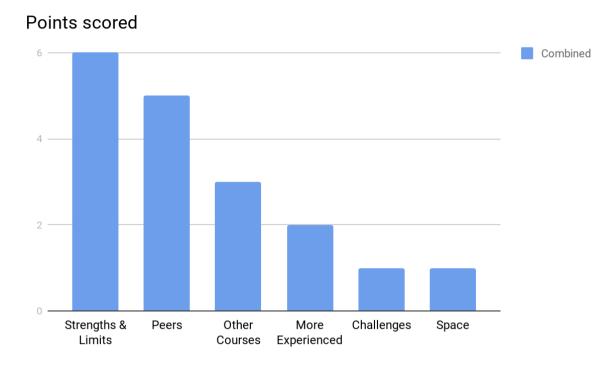
Points scored

Figure 12: Please give an example of a situation in which you have seen students' reflecting on their strengths, limitations, and collaborating to enhance their work and resilience?

On the question of useful collaboration, staff noted students can offset strengths against weaknesses and work together in a complementary way and self-reflection has been expressed as central to connecting appropriately with others. The benefits of peer review were highlighted as a method for improving work and group cohesion and to promote a culture of offering feedback and learning from feedback. Connecting with students on other courses was viewed as important to some with the view of creating collaborative and therefore industry related projects. Mentoring from more experienced students can help the quality of student work and give them a sense of how their work could progress. One staff member highlighted the fear of some students that they will take too much of the responsibility in group work and it would be unfair. Another member of staff talked of the importance of finding a more open space where collaborations can occur more readily. Ultimately, collaborative working was mostly viewed as an opportunity to develop cohesion and the quality of work. There does however remain the reality that some students will do more than others in a group work setting and this can be considered. This could be discussed more in student groups and mitigated against where possible with clear communication and creating an ethos of working together.

Question 5) Please list any suggestions in relation to inclusive pedagogy that could be addressed in a workshop for staff
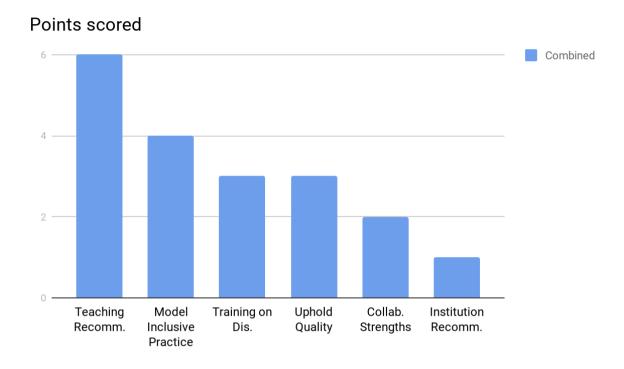
Points scored

Figure 13: Please list any suggestions in relation to inclusive pedagogy that could be addressed in a workshop for staff

Staff had a variety of feedback for me to consider in what they would be looking for from a workshop. Most of the comments were about getting practical recommendations that can be easily and effectively implemented. It was encouraged that any workshop should model inclusive delivery and be a place where attendees can see inclusive delivery in motion. Some comments were requesting more training on mental health and neurodiversity's such as autism, dyslexia and ADHD (Armstrong, 2010). It was viewed by some as important to tackle how you make materials accessible while not losing the quality or oversimplifying of the message. Discuss the benefits of working collaboratively, make the link clear, and give examples of how to make the most use of this approach. Finally, staff requested some feedback about any progress made with senior management on making the building more accessible. For example, how staff can print more easily on none-white paper.

Discussion

Most students felt written documents such as briefs were clearly written and understandable however a minority requested a reduced word count and wanted staff to be clearer about what briefs are asking. The accessibility of briefs will be further improved by appropriate formatting (British Dyslexia Association, 2017) and clear unambiguous language (The University of Edinburgh, 2016). Students pointed out that staff are sometimes inconsistent with uploading documents which limits accessibility to materials at times. Teaching staff appeared to take this seriously, talking about the importance of delivering briefs ahead of sessions including time for group discussion to ensure clarity of understanding. Staff also talked about innovations such as offering none-white backgrounds for handouts and colour coding briefs to aide differentiation.

There was some hesitation from staff to use audio alongside a brief, in case students did not then read the brief document. It was suggested in staff interviews that staff could include a disclaimer telling students they have to read the brief as well to fully understand the project. Staff reflected on audio being quick to create and students reflected on audio being useful for understanding the meaning of feedback as it includes tone of voice. The literature suggests audio used appropriately can improve performance (Morris, 2010), particularly for those with neurodiversity's (Plymouth University, 2016). A staff member also suggested allowing students to submit assignments in audio or video formats rather than traditional written approach.

Staff talked about using technology that includes more students in the room in a variety of ways. Examples include the use of weekly questionnaires to check in with understanding and using polls to gain insight and open discussion. Teaching staff suggested offering further support by using the virtual learning environment to create message boards and using audio to convey key points for briefs or in feedback. This mirrors the students request for clearer access to communicating with staff. Teaching staff also suggested using technology such as google documents or Nearpod to check understanding en masse and promote more digital collaboration. Nearpod allows staff to create interactive polls and collaborative discussions digitally using mobile, tablet, or desktop devices (Nearpod, 2019). The system can offer more ways to engage in course content which has been shown to have a positive impact on student experience (Oxford Brookes University, 2014)

Staff see value in collaborative working, but students have a slightly differing view. Teaching staff discussed collaborative working as helpful for students to check their understanding with peers in real time and to mirror industry practice. Students with learning support needs were significantly more likely to disagree that projects and abilities benefit from working collaboratively. Some of this group commented that they would prefer to work alone and have less group work. There may be ways of supporting students in their habituation to group working such as clarifying the value of collaboration (Schreiner, 2010), assigning students to groups in the first instance (Scottishautism.org, 2016), and grading exposure to experiences such as presentations to help individuals gain confidence (Bhagat and O'Neill, 2011).

Some students and staff highlighted a desire for more cross-college collaboration between departments and schools. This was mirrored by some teaching staff who suggested this mirrors industry practice. This approach was viewed as a way to develop cohesiveness and the quality of work. Collaborating has been suggested to improve work, refine talent, and enhance resilience (Schreiner, 2010).

Staff want training on learning support needs such as mental health and neurodiversity's such as autism, ADHD, and dyslexia (Armstrong, 2010). Staff also expressed a desire for practical recommendations that can support in their practice with students. This mirrors the internal initiatives for Ravensbourne University London (Ravensbourne, 2017b). This article will now respond to this request by condensing the practical recommendations from this research into a list. There is also a related lesson plan (Appendix 3) and adjoining teaching resource which forms part of a staff training workshop. The resource (Appendix 4) is an evidence-based document that recognises possible identifying features of anxiety, dyslexia, autism, and ADHD, why they might occur, and what adjustments might be suitable.

Overall, there seems to be some overlap in the views of students and practice of staff within the institution. One challenge is to share good practice amongst staff as some of this is happening in isolation. This research will end with recommendations found from the literature search, staff interviews, and student survey and conclude with future considerations.

Recommendations

Materials (written, audio, visual)

- Formatting briefs using dyslexia sensitive method including non-white background (or checking preferred background shade), 12-14 font at least, sans font such as Ariel, and 1.5 line spacing (British Dyslexia Association, 2017).
- The use of unambiguous language (The University of Edinburgh, 2016).
- Audio supplementing key information in written documents such as briefs (Morris, 2010).
- Audio to create formative assessments linked to course material that can be listened to repeatedly (Morris, 2010).
- Audio to offer personalised feedback (Leeds University, 2014) (staff feedback).
- Utilise visuals to structure information such as mind maps (Bacon & Bennett, 2013).
- Materials that link to session material delivered ahead of sessions to encourage preparation (University of Strathclyde, 2000) (Oxford Brookes, 2017).
- Giving students licence to use personal preferences and identity within projects, especially in a creative context (Richards and Finnigan, 2015).
- More consistency from staff in regularity of uploading documents on virtual learning environment to assist preparation (student feedback).
- Using technology such as google documents or Nearpod to check understanding and promote digital collaboration (staff feedback).

Teaching Adjustments

- Assigning students to groups in the early phases (Scottishautism.org, 2016).
- Students can record key parts of session (Plymouth University, 2016).
- Make the benefits of collaborative working clear and set ethos of working together (staff feedback).
- Workshops focused on student strengths and the value of collaborating with others to improve work, refine talent, and enhance resilience (Schreiner, 2010).
- More practical time such as workshops (student feedback).
- Developing student self-appraisal to build self-awareness and preparedness for critical feedback (The Higher Education Academy, 2013).
- Graded approach to presentations which allows the student to build confidence and resilience over time (e.g. starting with audio, video, then small group etc) (Bhagat and O'Neill, 2011) (staff feedback).
- More time with students wherever possible including time to fully understand briefs (student feedback).
- More ways to contact teaching staff using technology including through apps (such as Aula VLE) (student feedback).
- More reliably uploading course documentation to the VLE (student feedback).

- Using technology such as message boards to be efficient in responding to questions en masse (staff feedback).
- Using technology (e.g. Nearpod) to open discussions to a wider audience inside and outside of the classroom (staff feedback).
- Taking breaks to help students process sessions (staff feedback).
- More cross-college discipline (student and staff feedback) (Schreiner, 2010).
- Peer review as a way to improve work and group cohesion and to promote a culture of offering feedback and learning from feedback (staff feedback).
- Mentoring from more experienced students (staff feedback).

Institutional-Wide Implementations

- Buy in of senior management and includes training staff (Disabled Students Sector Leadership Group, 2017).
- Staff training on mental health and neurodiversity's and sharing inclusive adjustments (staff feedback) (Disabled Students Sector Leadership Group, 2017) (Ravensbourne, 2017b).
- Communicate with staff and students about institutional changes towards inclusivity, particularly those with disabilities (Disabled Students Sector Leadership Group, 2017)
- Collaboration across courses useful in creating industry focused projects (staff feedback).
- Developing links between students, staff, and student support (Oxford Brookes, 2014).
- Continued promotion of student support (student feedback).
- Make the building more accessible (e.g. easier access to printing on none-white paper) (staff feedback).
- Technology to support student wellbeing such as CBT psychoeducation (student qualitative feedback).
- Allowing students to submit assignments in audio or video instead of written (staff feedback).
- Extending or stopping written exams as policy (staff feedback).

Conclusion

This project has completed a literature review, designed and administered staff and student questionnaires, conducted thematic and statistical analysis, discussed results, and compiled key recommendations. The study also shared findings by running an evidence-based workshop for teaching staff which responds to internal objectives for staff training on disability (Ravensbourne, 2017b).

This research is valuable because there has been an increase in the prevalence of disability in Further and Higher Education (Oxford Brookes University, 2014) and it is important the sector removes barriers to learning (Equality Challenge Unit, 2013). This is underlined by UK legislation (Equality Act, 2010) and changes to DSA funding (Gov UK, 2014) which emphasise the importance of embedding inclusive practice (Bhagat and O'Neil, 2011). These adjustments could be viewed with greater urgency in creative institutions as there is up to 50% more students with disabilities in a creative setting (Richards & Finnigan, 2015).

This produces a greater demand on resources (The National Union of Students, 2016) but the development of an inclusive environment creates benefits including reducing the need for time-consuming individualised plans (Equality Challenge Unit, 2013).

The project offers a range of recommendations (above) that can inform practice and embed reasonable adjustment within teaching (Corbett, 2001). Adjustments like these have been shown to increase attendance (Babb & Ross, 2009), engagement (Leeds University, 2014), performance (Morris, 2010) and satisfaction (Oxford Brookes University, 2014) for all students including those with neurodiversity's (Plymouth University, 2016) and mental health difficulties (The National Union of Students, 2016). The sector can share these benefits alongside the recommendations in staff training (Ravensbourne, 2017b) and work towards an environment which closes the gap in perceived quality of experience, achieving good degrees (2:1 or above), and rates of graduate employability for disabled students (Disabled Students Sector Leadership Group, 2017).

Institutions can take these recommendations and put them to use in their own way either through staff development (Ravensbourne, 2017b) or by influencing institutional policy change (Disabled Students Sector Leadership Group, 2017).There is also scope for this research to develop by conducting further student surveys periodically to measure inclusivity of the environment over time (Coertjens et al., 2012). The study could also conduct more staff interviews and student surveys with external Universities to understand and share best practice more broadly.

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Appendix 1.

Questionnaire for Ravensbourne Staff: An Inclusive Pedagogical Approach within Ravensbourne

Inclusive pedagogy seeks to accommodate all students in learning (Corbett, 2001) and this study aims to identify best practice and present recommendations to teaching staff. Kevin Johnson and Tema George from Student Services are conducting the interviews and data from questionnaires will be made anonymous with measures taken to remove identifiable information. Findings from the questionnaire will be used to develop recommendations and an internal staff workshop, a written research paper, and may contribute to additional pedagogic projects in Ravensbourne.

Inclusive pedagogy has been defined as an approach that targets a culture that accommodates all and ensures practice is based on the use of diverse teaching strategies (Corbett, 2001). The study aims to work alongside academic staff to create a piece of pedagogic research that is useful and for Ravensbourne to become an exemplary Higher education (HE) inclusive learning environment.

Evidence has shown inclusive teaching can impact positively on satisfaction and grades (Oxford Brookes University, 2014), attendance (Babb & Ross, 2009), remove barriers to learning (Equality Challenge Unit, 2013) and can benefit all students not just those with diagnoses such as autism, dyslexia and ADHD (Bhagat & O'Neill, 2011). The approach can also save time for teaching staff as an inclusive environment reduces the need for individualised plans (Equality Challenge Unit, 2013).

There are other areas that highlight the value of this project such as changes to government funding including the removal of in-class scribes (Warwick University, 2016). There is more emphasis on Higher education institutions to embed reasonable adjustments into routine practice (Equality Act, 2010) and the institution has targeted staff training in the area with the aim of improving the student experience, feedback and retention (Ravensbourne, 2017). Findings may also contribute to other pedagogical projects in Ravensbourne as part of the portfolio review. For example, themes and best practice in talent development which has been shown to develop self-awareness (Schreiner, 2010) and contribute to resilience of students (The Higher Education Academy, 2013).

Responses from this questionnaire will be anonymous and any potentially identifying information will be removed such as staff and course names to maintain confidentiality. All participants will be sent the notes from their interview and will have the opportunity to review before being used in research. Questionnaires will be stored in the internal server and password protected. Audio recordings will be transferred to be stored and files deleted from recording device. Data will be stored in anonymised form and follow data protection act (1998) guidance.

The study aims to have a workshop ready for February 2018. Feedback will be incorporated into our continued review to inform and improve the workshop on a continuing basis.

My name is Kevin Johnson and I am running the research into inclusive pedagogy with collaboration from Tema George. We intend to interview staff internally and externally and survey students from Ravensbourne to create recommendations and an evidence-based workshop. I am the Health and Wellbeing Support Co-ordinator working in student services

with a background as a qualified talking therapies practitioner, experience supporting adults with autism and post graduate Psychology research experience and training. Tema George is Senior Study Skills Tutor within student services and has experience of teaching, curriculum development and completed a master's proposal for research in inclusive teaching. Dr Gary Pritchard is advising the project and is the Dean of the School of Media with over fifteen years' experience of leadership and research-based roles.

Questions

Staff questions:

- 1) Students with neurodiversity's including dyslexia often have difficulties with working memory which can impact on the processing of information (Bhagat et al, 2011). Audio recordings have been used innovatively for example by offering an interpretation of briefs or delivering personalised feedback (Leeds University, 2014). Podcasting has been used to create formative assessments linked to course material that can be listened to repeatedly (Morris, 2010). Such adjustments have been shown to increase engagement (Leeds University, 2014) and performance for all students not just those with neurodiversity's (Morris, 2010). **In which areas could it be most valuable to use audio recordings in your course?**

- 2) The delivery of written course information such as handouts has been adjusted in some institutions to address accessibility for students with neurodiversity's. Materials are sometimes delivered to students ahead of sessions (University of Strathclyde, 2000) and link to key learning objectives rather than provide all information (Oxford Brookes, 2017). Handouts can be made dyslexia sensitive by following certain formatting principles (British Dyslexia Association, 2017) and utilise visuals to structure information such as mind maps (Bacon & Bennett, 2013) which assist recall of information (University of Sheffield, 2017). These approaches have been shown to improve attendance and participation in course material (Babb & Ross, 2009). **Please give some examples of adjustments regarding written materials (e.g. handouts, crib sheets) that you have utilised or created that are accessible?**

- 3) **Please list some examples of where educational delivery (inside or outside of Ravensbourne) has been adjusted to be more inclusive to students (e.g. with mental health, physical health or neurodiversity's) within the following three areas:**

A) teaching

B) assessment

C) field trips

- 4) Research suggests students can thrive academically by working on their strengths and collaborating with others to improve work, refine talent, and enhance resilience (Schreiner, 2010). Methods of self-appraisal can help students cope with critical feedback and understand their areas of development (The Higher Education Academy, 2013). This proactive approach helps build self-awareness of ability and encourage positive collaboration to maximise the quality of work produced (Schreiner, 2010). **Please give an example of a situation in which you have seen students' reflecting on their strengths, limitations, and collaborating to enhance their work and**

resilience?

- 5) **Please list any suggestions in relation to inclusive pedagogy that could be addressed in the workshop**

Student survey questions:

- 1) Please list some examples of where delivery (inside or outside of Ravensbourne) **has been** adjusted to be more inclusive to students (e.g. with mental health, physical health or neurodiversity's such as dyslexia or autism) within

  A) teaching,

  B) assessment,

  C) field trips?

- 2) Please list some examples of where delivery (inside or outside of Ravensbourne) **could be** adjusted to be more inclusive to students (e.g. with mental health, physical health or neurodiversity's such as dyslexia or autism) within

  A) teaching,

  B) assessment,

  C) field trips?

- 3) Mental health is cited as the main reason students leave Ravensbourne in their first year (Ravensbourne, 2016). How could Ravensbourne better support or prepare students for their time in the institution?

- 4) Student Services aim to create a workshop for teaching staff which is full of evidence-based recommendations for making reasonable adjustments for students with diagnoses such as dyslexia, autism, and mental health. List any area of inclusivity you would like to have teaching staff trained on.

Appendix 2.

Supporting Inclusive Practice -

Student Survey

Thank you very much for agreeing to participate in this survey.

This questionnaire aims to help courses and services in Ravensbourne become more accessible for students with learning support needs (e.g. a neurodiversity such as dyslexia, mental health experience such as anxiety or depression, or physical condition such as epilepsy).

Your responses will contribute to the development of key recommendations for the sector and an evidence-based workshop for teaching staff in Ravensbourne. The study also aims to publish findings to develop practice in the education sector.

The information provided by you in this questionnaire will be used for research purposes. Data from this questionnaire will be made anonymous with measures taken to remove identifiable information. The data will be stored and deleted in accordance with General Data Protection Regulation.

1) Do you have a learning support need within your health and wellbeing (e.g. a neurodiversity such as dyslexia, mental health experience such as anxiety or depression, or physical condition such as epilepsy)? (Karousou, 2017)

   Yes or No

   If you answered yes to question 1, please describe your learning support need:

2) Are project briefs clearly written and understandable?

   1 Strongly Disagree, 2 Disagree, 3 Neutral, neither agree nor disagree, 4 Agree, 5 Strongly agree

   Any feedback about this:

3) Does your course give you the opportunity to understand each project brief through the use of additional support? For example, through:

Group discussion:

1 Strongly Disagree, 2 Disagree, 3 Neutral, neither agree nor disagree, 4 Agree, 5 Strongly agree

The use of audio:

1 Strongly Disagree, 2 Disagree, 3 Neutral, neither agree nor disagree, 4 Agree, 5 Strongly agree

The use of video:

1 Strongly Disagree, 2 Disagree, 3 Neutral, neither agree nor disagree, 4 Agree, 5 Strongly agree

Other:

4) Do your projects and abilities benefit from working collaboratively with your fellow students?

1 Strongly Disagree, 2 Disagree, 3 Neutral, neither agree nor disagree, 4 Agree, 5 Strongly agree

Any feedback about this:

5) Are you aware of the support available through student services?

Yes or No

6) How easy is it to access the support through student services?

1 Strongly Disagree, 2 Disagree, 3 Neutral, neither agree nor disagree, 4 Agree, 5 Strongly agree

Any feedback about this:

7) Please offer any recommendations you feel would help the course become more inclusive so you can access it more easily, with consideration of your learning support need (Karousou, 2017) (Salmon et al., 2015):

Thank you for taking the time to complete this survey. Your thoughts and feelings are very useful and will help in the development of our workshop, resources and written research. To read more about the research behind this questionnaire, please see below.

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Appendix 3

Workshop Lesson Plan

Time	Activity name	Activity	Who does what?	Resource required
0-2 mins	Prequestionnaire And register with name and email address	Handout and ask people to complete pre session questionnaire	Kevin and Tema	Questionnaires printed on none-white paper
2-5 mins	Intro	Introduce ourselves, the session; research (staff, students, literature = workshop) objectives of session	Kevin and Tema	none
5-25 Activity 25-35 Flip chart 35-45 Feedback 45-50 Matrix Handout	Group Activity	Introduce the research findings showed some staff wanting to know more about diagnoses. Others felt more comfortable - opportunity to share knowledge and understanding Get the names of three key diagnoses and cards with symptoms of said diagnoses Link to second activity and prevalence	Kevin and Tema	Main cards

50-60	Get set up on Nearpod (show Nearpod slide) And 5 min break			
60-75 mins	Nearpod Quiz	Conduct a short quiz on Nearpod, positioning the prevalence of different diagnoses within the classroom environment. Make sure to take people through the log in: nearpod.com/student - code - name (favourite colour and month of birth e.g. blue2)	Kevin	Nearpod, everyone can log in using their phones,
75-85 mins	Presentation	Develop the Learn X slides - start with evidence for answers from quiz Go through research process and some findings Tricolour (emails) Take home adjustments	Kevin	Nearpod or google slides
85-90	Questions?			
90-105 mins	Activity 2			

105-110 mins	Post session questionnaire	Administer the questionnaire	Kevin and Tema	Formatted and non-white printed questionnaires
110-115	Direct to resources	Create a folder in G drive with presentation, dyslexia formatted doc, and piece of audio summarising the session	Kevin	Create the folder and start to add resources to it
115-120	Question and details slide			
END				

Appendix 4

Inclusive Adjustment (Matrix)

Black = feature of learning support need
Orange = possible cause
Blue = possible solution in teaching/support

Anxiety	Dyslexia	ADHD	Autism
Panic (Mind, 2017) Amygdala overwhelm, fight or flight, unable to think clearly in this state Heart palpitations, sweaty palms, dizzy Encouraging support through student services (e.g. counselling, or CBT through GP)			**Panic** (Autism.org, 2016) *c* Amygdala overwhelm, fight or flight, unable to think clearly in this state Heart palpitations, sweaty palms, dizzy Encouraging support through student services (e.g. counselling, or CBT through GP)
Unable to stay calm/still (Mind, 2017) Due to panic Recommending meditation - weekly Weds (contact student services), or quiet space		**Unable to stay calm/still** (Grant, 2017) Hyperactivity/difficulty with sustained attention Recommending meditation - weekly Weds (contact student services), or quiet space	**Unable to stay calm/still** (Autism.org, 2016) *c* At times, due to overwhelm Recommending meditation - weekly Weds (contact student services), or quiet space
	Working memory (Grant, 2017) Capacity to remember verbal information for a short time Difficulty taking notes Difficulty organising written work (beginning, middle, end), spelling, punctuation,	**Working memory** (Grant, 2017) Capacity to remember verbal information for a short time Difficulty taking notes Difficulty organising written work (beginning, middle, end), spelling,	

	retaining this all "in mind" difficult Difficulty prioritising (feature of executive function) Student audio record key part of sessions/briefs (Cogi app) Opportunities to ask questions Short summary documents refreshing key points (e.g. before sessions of for briefs) Access to study skills team to assist with creating written work	punctuation, retaining this all "in mind" difficult Student audio record key part of sessions/briefs (Cogi app) Opportunities to ask questions Short summary documents refreshing key points (e.g. before sessions of for briefs) Access to study skills team to assist with creating written work	
Disorganisation Cognitive overload Clear timetable, access to study skills for support with organisation/time management	**Disorganisation** (Grant, 2017) Cognitive overload Difficulty prioritising (feature of executive function) Clear timetable, access to study skills for support with organisation/time management	**Disorganisation** (Grant, 2017) Cognitive overload Difficulty prioritising (feature of executive function) Clear timetable, access to study skills for support with organisation/time management	(Autism.org, 2016) *d* Often very routined/find disorganisation difficult Can greatly benefit from clear timetable/routine
Ritualistic behaviour (NHS, 2016) *b* Feature of OCD			**Ritualistic behaviour** (Autism.org, 2016) *b* Sensory input e.g. tapping, deep pressure
Difficulty public speaking (Socialanxietyinstitute.org, 2018) Panic/Social anxiety Graded exposure for	**Difficulty public speaking** (Grant, 2017) Difficulty reading out loud, especially without chance to prepare	**Difficulty public speaking** (Grant, 2017) Organisation of thoughts Graded exposure for presentations with clear	**Difficulty public speaking** Panic/Social anxiety Graded exposure for presentations (e.g. starting with audio, then video, then

presentations with clear instructions (e.g. starting with audio, then video, then skype, then small group)	Graded exposure for presentations with clear instructions (e.g. starting with audio, then video, then skype, then small group)	instructions (e.g. starting with audio, then video, then skype, then small group)	skype, then small group)
Overwhelm (Mind, 2017) Worry Clear routine/timetable Handouts ahead of sessions (link to key objectives)	**Overwhelm** (Grant, 2017) Structuring ideas Clear routine/timetable Handouts ahead of sessions (link to key objectives)	**Overwhelm** (Grant, 2017) Inability to focus Clear routine/timetable Handouts ahead of sessions (link to key objectives) Time to "cool down" in session or after (quiet space)	**Overwhelm** (Autism.org, 2016) *c* Sensory overload Clear routine/timetable Handouts ahead of sessions (link to key objectives) Time to "cool down" in session or after (quiet space)
Social anxiety (Socialanxietyinstitute.org, 2018) Grade approach to presentations			**Social anxiety** (Autism.org, 2016) *b* Grade approach to presentations
			Social imagination (Autism.org, 2016) *b* (e.g. such as metaphor) Clear, unambiguous language where possible
	Reading (Grant, 2017) Breaking down written words/comprehension Use of audio to help explain documents (e.g. synopsis of briefs). Use of assistive technology like Text Help for text to speech function. Format documents as per dyslexia format here.	**Reading** (Grant, 2017) Focus/inattention Use of audio to help explain documents (e.g. synopsis of briefs). Use of assistive technology like Text Help for text to speech function. Format documents as per dyslexia format here.	

	Spelling (Grant, 2017) Use of assistive technology like Text Help. Speech to text functionality. Use of grammar (free)	**Spelling** (Grant, 2017) Use of assistive technology like Text Help. Speech to text functionality. Use of grammar (free)	
	Processing written language (Grant, 2017) Comprehension of complex written words - breaking down the word Clear, unambiguous written documents where possible. Opportunity to discuss written documents in group.	**Processing written language** (Grant, 2017) Ability to focus Clear, unambiguous written documents where possible. Opportunity to discuss written documents in group.	**Processing written language** (Autism.org, 2016) *b* If it is vague, metaphorical etc Clear, unambiguous written documents where possible. Opportunity to discuss written documents in group.
			Social communication (Autism.org, 2016) *b* (e.g. such as subtle body language, subtext) Clear unambiguous spoken language.
			Social understanding (Autism.org, 2016) *b* (e.g. how the other person feels. **Not to be confused** with a lack of desire to know how that person feels i.e. not caring) Clear unambiguous spoken language.
			Area of special interest (Ambitious About Autism, 2017)

			Possibly in response to overwhelm and looking for something comforting
		Sensory sensitivity (Grant, 2017) E.g. hypersensitive to noise Encouraging calming techniques, allowing breaks if overwhelmed, sound blocking headphones	**Sensory sensitivity** (Autism.org, 2016) *a* High or low - sight, touch, sound Encouraging calming techniques, allowing breaks if overwhelmed, sound blocking headphones
	Visual stress (Grant, 2017) Visual distortion when looking at the page. "Can look like ants". 50% have visual stress Non-white background (as per handout) Coloured overlays Screen overlays (e.g. on text help) Speed of reading can improve dramatically	**Visual stress** (Grant, 2017) Visual distortion when looking at the page. "Can look like ants". 50% have visual stress Non-white background (as per handout) Coloured overlays Screen overlays (e.g. on text help) Speed of reading can improve dramatically	**Visual stress** (Autism.org, 2016) *a* Sensory component Student may wear eyewear with overlay lenses
Difficult to concentrate (Hallion, Steinman and Kusmierski, 2018) Overload/stress/hyperarousal in amygdala Links to emotional support to reduce distress, study skills team, self-help (meditation etc)		**Difficult to concentrate** (Grant, 2017) Working memory overloaded by "thousands of thoughts", brain defaults to mind wandering state Varied activity, access to emotional support	
	Strong visual learner (Grant, 2017)	**Strong visual learner** (Grant, 2017)	**Strong visual learner** (Grandin, 2009)

	Often have strong visual learning ability (visual memory) Encourage use of visual stimuli e.g. mind mapping through learning Use visuals in the development of documents such as briefs (Synopsis) to help understanding	Often have strong visual learning ability (visual memory) Encourage use of visual stimuli e.g. mind mapping through learning Use visuals in the development of documents such as briefs (Synopsis) to help understanding e.g. have a mind map at the front of a document	Can think in images and possibly find long text documents overwhelming Encourage use of visual stimuli e.g. mind mapping through learning Use visuals in the development of documents such as briefs (Synopsis) to help understanding e.g. have a mind map at the front of a document
	Processing speed (Grant, 2017) Reading, comprehension, often re-reading lines 80% have "double deficit" of working memory and slow processing speed Materials in different formats, pause/rewind function e.g. videos, Text Help (text to speech) Allowing time to respond	**Processing speed** (Grant, 2017) Reading, comprehension, often re-reading lines 80% have "double deficit" of working memory and slow processing speed Materials in different formats, pause/rewind function e.g. videos, Text Help (text to speech) Allowing time to respond	**Processing speed** (Oliveras-Rentas et al., 2011) Sensory overload, processing social context Allowing time to respond
	Good verbal reasoning (vocabulary) (Grant, 2017) Difficulty in writing but strong vocabulary Encourage use of speech to text software	**Good verbal reasoning (vocabulary)** (Grant, 2017) Difficulty in writing but strong vocabulary Encourage use of speech to text software	
Procrastination (Socialanxietyinstitute.org, 2018) Can be due to perfectionism ("it has to be 100% or I am a failure, too high an expectation		**Procrastination** (Grant, 2017) Tremendous challenge to focus, create a concise plan, foresee the whole project in terms of every	

on self")		step needed	
Emotional support, cognitive behavioural therapy through the GP, placing focus on creative expression than on high grades		Breaking down the task, offering opportunity to clarify through tutorials	
Breaking down the task, offering opportunity to clarify through tutorials		Use of tools such as mind mapping etc to get overview.	
Stress/distress (Mind, 2017) Strong self-criticism, catastrophising Stress management, drop in (12-1 Mon to Fri 315), mood boost etc. Resilience building by work such as reflecting on strengths and weaknesses. Demonstrate we all have them, opportunity to work with others to complement their weaknesses and develop skills/confidence collaboratively.	**Stress/distress** (Grant, 2017) Lower prevalence than ADHD Stress management, drop in (12-1 Mon to Fri 315), mood boost etc. Resilience building by work such as reflecting on strengths and weaknesses. Demonstrate we all have them, opportunity to work with others to complement their weaknesses and develop skills/confidence collaboratively.	**Stress/distress** (Grant, 2017) 40% of people with ADHD experience mental health distress Strong self-criticism Stress management, drop in (12-1 Mon to Fri 315), mood boost etc. Resilience building by work such as reflecting on strengths and weaknesses. Demonstrate we all have them, opportunity to work with others to complement their weaknesses and develop skills/confidence collaboratively.	**Stress/distress** (Autism.org, 2018) Can become highly stressed. Stress management, drop in (12-1 Mon to Fri 315), mood boost etc. Resilience building by work such as reflecting on strengths and weaknesses. Demonstrate we all have them, opportunity to work with others to complement their weaknesses and develop skills/confidence collaboratively.
Medication (Pittman, 2017) Help manage worries and stress Can prescribe serotonin norepinephrine reuptake inhibitors (SNRI's)		**Medication** (Healtline, 2016) Boost focus Can prescribe serotonin norepinephrine reuptake inhibitors (SNRI's)	
		Seek out newness (Grant, 2017)	Can find newness difficult

More women diagnosed (NHS, 2016) *b*	More males diagnosed (Grant, 2017)	More males diagnosed (Grant, 2017)	More males diagnosed (Autism.org, 2018)
Twice as many diagnosed However, males more likely to end their lives. Males less likely to seek support than females. Possible impact on statistics.	It is suggested this is balanced at 50/50 in reality. Women are missed in part due to cultural and social expectations. E.g. what the teacher in primary school see's behaviour as.	It is suggested this is balanced at 50/50 in reality. Women are missed in part due to cultural and social expectations. E.g. what the teacher in primary school see's behaviour as.	It is suggested this is balanced at 50/50 in reality. Women are missed in part due to cultural and social expectations. E.g. what the teacher in primary school see's behaviour as.
Difficulty sleeping (Mind, 2017) Worried thoughts Referral for CBT through GP or student services. Sleep hygiene support.		**Difficulty sleeping** (Grant, 2017) Coping with activity of thoughts and possible co-existing anxiety Referral for CBT through GP or student services. Sleep hygiene support.	

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