22 recommendations for inclusive teaching and their implementation challenges

Katie Stripe
Imperial College London, UK

Iro Ntonia
Imperial College London, UK

Abstract

Higher Education Institutions across the world hold a moral and, in many cases, legal responsibility to make their educational offerings inclusive. Universities may rely solely on checklists of recommendations, which although a key component of developing equitable and inclusive teaching, often fall short of accounting for the multifaceted range of attributes a holistic definition of inclusivity entails. This paper posits that there is a need for better understanding of potential implementation barriers, coupled with guidance and support for both practitioners and policy makers. Research reported in this paper presents an analysis of UK equality legislation as it relates to higher education and a range of institutional support documentation. This documentary analysis is used to explore, with practitioners, the opportunities for and barriers to implementing recommendations for inclusive learning at a highly selective, science-focussed institution. The paper concludes with 22 recommendations for inclusive practice and offers them as a tool for others to adapt and use in the pursuit of developing more inclusive education, while giving readers the opportunity to learn from the experiences of those from the research institution.

Keywords: inclusive education; inclusive language; influence; equity; diversity.

Introduction

‘The most pernicious element of ableism is the acceptance, without critique, of the perfect, species-typical norm’ (Bussey, 2021, p.9).
The word ableism in this statement could be replaced by a descriptor for any underrepresented or marginalised group and still be relevant and true. Inclusive teaching cannot simply be a set of recommendations, a checklist, or reliant on practitioner good will. These can be components, but true inclusion will only come when we, as humans, start to critique the status quo, or the ‘species-typical norm’, challenge what we find, and follow through with implementation. For instance, a toolkit for increasing a sense of belonging suggests that we ‘expose students to potential role models from BAME backgrounds’ (UCL, 2020b) which may well increase the sense of belonging for BAME students, but might not resonate with the LGBTQ+ community, or any other marginalised cohorts. Dalton et al. (2019) write about inclusive education in South Africa, a country with a deep history of racial inequality, yet focus their inclusion strategies on making accommodations for disability. This is indicative of the wider literature which either focusses on one group or on interventions for accessibility, both inherently limited approaches. Accessibility innovations can offer off-the-shelf solutions, but are they enough? This paper will look at inclusion regardless of characteristics and challenge the focus on individual groups. The principles of intersectionality (Crenshaw, 1991), acknowledge that individuals may identify with multiple underrepresented groups and that new and complex issues can arise at that intersection. Combining this understanding with a holistic definition of diversity this paper proposes recommendations aimed at enhancing the inclusivity of higher education (HE) teaching environments for everyone. There are many arguments for why inclusion is important; in a corporate environment it is observed that ‘team performance improves by 50% when everyone feels included’ (Accenture, 2017). However, as Wright puts it this is ‘problematic because it views people as commodities instead of valuing people as human beings who deserve to be heard simply because they exist’ (2022). We should make our workplaces and educational spaces inclusive of everyone simply because it is the right thing to do.

**Inclusion for students**

It is not unreasonable to expect the student demographic to mirror what is seen nationally. For example, the overall sector ratio of male to female students is about 43:57. However, in Computing and Engineering that figure is closer to 80:20 (Advance HE, 2019), something that needs to be challenged. Addressing this imbalance is complex but made harder by rhetoric from the government’s Social Mobility Commission suggesting that girls
‘don’t want to do hard maths’ and that ‘the research generally says that’s just a natural thing’ (Martin, 2022). The media response to these assertions was swift and damning with teachers, academics, and OFSTED challenging the sentiment (Bateman, 2022; Belmonte, Rising and Clark, 2022), but the day-to-day reality of HE suggests that there is still much to be done to attract and sustain diverse cohorts of staff.

In contrast to gender the opposite shift can be seen with more students identifying as LGBTQ+ (7% (Advance HE, 2020b)) than the general population (3% (ONS, 2022)) which might suggest that students feel more comfortable being their whole selves within the university environment. This put heavy responsibility on those providing higher education to create a safe and inclusive environment.

Inclusion for staff

In 2020, for the first time, Advance HE released a dataset specific to university staff groups (Advance HE, 2020a). The prior lack is demonstrative of just how recently the importance of staff diversity has been acknowledged and these data do not make for comfortable reading. The percentage of staff who disclose a disability is 5.3% compared to a global average of approximately 15% (United Nations, 2021), and the career progression statistics for BAME groups and women show a significant steady decline compared to the progression rates for white and male academic staff. BAME groups drop from 25.5% at undergraduate level to 9% at professorial level while women represent 56% of undergraduates but only 26.7% of professors.

Institutional responsibilities

Institutions are beholden to legislation, benchmarking schemes, staff and student unions, quality assurance process, and money (e.g., Equality Act 2020, Higher Education and Research Act, 2017, Athena Swan, Race Equality Charter, The Office for Students, and the QAA). As such, they must find a balance that works for everyone, and which manifests across institutional levels by bridging potential gaps between policy and practice. It follows that leadership must not only support inclusion but put structures in place to facilitate and
reward it. An inclusive community without inclusive processes is the equivalent of ‘speaking without being heard’ (Atcheson, 2021, p.20).

Institutions must also be mindful of being superficial in their approaches. The Lincoln education toolkit for student success lists two myths about inclusive education:

- ‘I treat all students the same, therefore, I have an inclusive classroom.’
- ‘My classroom is inclusive because my students are demographically diverse, including nationality, race, gender, age, etc.’ (Zhu and Sterling-Morris, 2021, p.14).

Equal treatment of students although paramount in certain aspects, does not necessarily translate into equity of opportunity within the learning environment and neither does demographic diversity. It is not enough to have a diverse cohort if the needs of those students are not catered for. Inclusive education is not about increasing diversity, it is about making our programmes and their content reflect and embrace diversity (Stripe, Dallison and Alexandrou, 2021).

**Methodology**

Accepting the premise that inclusive education is vital to the future of higher education, there are certain questions that need to be asked and answered. Paramount among them being what institutions can practically do to promote inclusive education and what barriers might be faced in the implementation of these practices. To explore this question a mixed methods approach was designed with approval from the institutional Educational Ethics Review Process which combined documentary analysis of key legislation, the review of a range of institutional help and support documents, a sector wide scoping survey, and institutional focus groups. This multilayered strategy is outlined in Figure 1 below.
Initial analysis of legislation informed the development of a quantitative survey which was designed by the researchers to ascertain: (1) how well the legislation, and its implications, are understood by practitioners, (2) what tools are commonly available and/or used across the sector, and (3) how confident those working in HE feel about their ability to deliver inclusive education. This survey was distributed using the researcher’s social media networks and professional organisation mailing lists (Association of Learning Technologists, Staff and Educational Development Association, educational technology user groups), to get a broad view across UK HE.

Concurrently further documentary analysis of sector wide documentation aimed at fostering inclusive practice was undertaken to produce an initial set of recommendations for inclusive practice. This analysis combined with survey response data was used in guided focus groups with staff from a single STEMMB institution to explore the recommendations and discuss the challenges to implementation that may be encountered.

**Documentary analysis: legislation**

The two main pieces of legislation relating to inclusion in education are ‘The Equality Act 2010’, and ‘The Public Sector Bodies [Websites and Mobile Applications] (No. 2) Accessibility Regulations 2018’. These documents, as well as being a legal requirement...
for institutions, are the drivers for benchmarking schemes such as Athena Swan, The Race Equality Charter, and Disability Confident. The researchers read the source documents to ascertain the key aspects that relate to education.

The Equality Act
The Equality Act defines under-represented groups using the term ‘protected characteristic’. These characteristics (age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion, sexual orientation, sex) were used throughout this research as a marker to ensure a holistic representation of inclusion. Additional to this list socioeconomic issues were also considered, as poverty and digital inequality are significant complicating factors in an educational era where digital tools are everywhere. Technology can be a great leveller, but it needs to be available (Beyene, Mekonnen and Giannoumis, 2020).

As well as defining the protected characteristics, the act defines institutional and personal responsibilities. Universities have a legal responsibility to demonstrate they are ‘taking action on equality in policymaking, in the delivery of services and in public sector employment’ (Equality and Human Rights Commission, 2014, p.59).

Web Accessibility Regulations
While the legislative requirements of the Equality Act are quite clear with regards to education, the web accessibility guidelines are not: the word ‘education’ is not mentioned at all. Nevertheless, it is stated (although implicitly) that any public sector web content, even that behind a log-in screen is subject to the regulations, which includes content provided on an institutional virtual learning environment.

The ‘Web Content Accessibility Guidelines (WCAG)’ (W3C, 2018) offer (in theory) practical ways of implementing the Web Accessibility Regulations and provide support for aligning web content to the legislation. There is some extremely useful content in the guidelines, which is of clear use to a professional web-developer but, with 62 sub-headings in their ‘quick guide’ (W3C, 2019) these could be perceived as opaque and over complicated and difficult for an academic or HE specialist to utilise for designing appropriate online learning content.
Survey: how well is the legislation understood?

Analysis of the legislation highlighted key areas which are relevant to the delivery of inclusive education. This defined a set of questions delivered as a survey to ascertain how well the legislation is understood, and how comfortable practitioners feel in their abilities to provide inclusive education. 110 responses were gathered from learning technologists/designers (34%), academic developers (9%), teaching fellows (12%), academics (18%), and others (27%) across institutions represented by the professional networks used to distribute the survey.

Responses showed that even though 65% of respondents had not read the WCAG guidance on web accessibility over half still viewed themselves as above average in compliance with it.

With regards to the Equality Act respondents were asked to rate each of the protected characteristics on the level of inclusion they felt they provided in their educational content on a scale from one being very inclusive to five being not inclusive. Respondents were confident in being inclusive of sex with an average score of 1.86. Inclusion of disability showed least confidence overall with an average of 2.55 but with no respondents rating themselves as a five and only 13% rating themselves at one. Inclusion of gender reassignment had the highest number of fives (11%), suggesting that those who are not confident they are inclusive, are far from confident in this respect.

Regardless of the stated level of confidence, 96% of respondents wished on some level, to improve the inclusivity of their offerings, although 23% felt they need more support.

Document analysis: what support is available?

Further documentary analysis was carried out on the help and support documentation available to practitioners. The aim of which was to collect a set of practical recommendations that could be used in a range of scenarios to develop new content, devise inclusive strategies, and start conversations. These documents came from professional organisations and HE providers in the UK and, in all, 12 sets of support documentation were combined to form an initial set of recommendations. The full list of
documents and their relevant content can be found in Appendix 1. Additional documents reviewed had a heavy focus on technical accessibility and therefore were disqualified from the analysis as not being appropriate for the holistic view of inclusion that is central to this research.

Themes for inclusive content

Based on their recurrence across multiple resources the following themes emerged as critical to the development of inclusive education.

Use of representative resources
Largely relating to decolonisation and/or anti-racism this theme suggests exploration of the geographical and cultural balance of material, primarily academic reading. Still strongly rooted in addressing racial equity this theme has scope to develop into representation across all characteristics.

Teaching (and assessment) variety
Perhaps the most obvious of the themes from a pedagogical perspective. Theorists like Kolb (1984) and Schön (1983) show the value of varying methods such as experiential, active, and reflective learning, and nearly every institution has some form of staff training in this area. However, the links between a varied curriculum and inclusive curriculum are not always made explicit. Perhaps because, a varied curriculum is simply good practice, the fact that it appears, in some form, in six of the twelve toolkits that were explored suggests that it may not be as obvious as one would hope.

Accessibility
While this is a critical element of inclusive practice it only represents one element. Due to the holistic view of diversity that has been taken here and the large amount of research that has already been done on accessibility this area will be given limited attention in order to discuss other aspects that do not have as much of the literature devoted to them.
Reflection on identity, limits, and biases
This theme highlights the idea that all teachers should reflect on their own limits and biases, as a matter of professional development. It is likely that individuals who identify with the protected characteristics will have spent time and energy exploring their own identity and the barriers they may have faced. Too often these are the groups taking most of the strain to challenge those barriers. It is time some of that responsibility is taken on by others.

Hidden curriculum
It is natural for teachers to use their own experiences when teaching, but when that is grounded in popular culture and assumed knowledge it can become damaging to students that do not have the same background as the majority. Particularly if the instructor comes from a majority, it can perpetuate scenarios in which groups are excluded because they do not know the ‘in language’, making it difficult for someone from a minority to enter that field or community.

Asking questions
These themes were subsequently translated into a list of 19 recommendations that were used in two guided focus groups to discuss their value and what barriers there may be to implementing them. The aim was for each group to reach a consensus on the level of challenge posed by each recommendation and categorise them according to their agreed level of challenge: implement immediately, minor challenge, significant challenge, and wicked challenge – wicked in this sense being used to represent an issue that is both complex and difficult to solve.

The two focus groups were split by job role to explore the recommendations from the perspective of those in teaching roles (TF) and those in support roles including managers and library staff (SS). There were three staff members in each group all of whom had previously attended workshops within the institution relating to inclusive teaching and learning. It was believed this would give the participants a baseline knowledge and the beginnings of a shared understanding around some of the key ideas being discussed.
Barriers and opportunities

A thematic analysis of the focus group data was carried out using open and axial coding (Savin-Baden and Major, 2012) which highlighted six themes: inclusive practice, language and communication, external factors, internal factors, teaching and learning, and power/influence. Within each theme there were clear barriers and opportunities. The opportunities almost entirely revolve around people, their diverse experiences, and their passions. The barriers are largely systemic and will need a multifaceted approach to break them down.

Inclusive practice

All participants regardless of job role exhibited a strong desire to make education more inclusive, desiring a system where young people do not have to fight for inclusion or access but are simply part of a system that inherently supports them. Such significant change requires a mindset shift and there was some resistance particularly from those in teaching roles. Some of this resistance came from a lack of information on students’ specific needs: ‘what they have a bad habit of doing is waiting till the last minute [to disclose]’ (TF2). Whereas others perceived that their own identity would be less valued. The barrier here is a lack of training in inclusive design which would allow educators to use their own identity, as well as the diversity of their students to design education where the majority of needs are catered.

Language and communication

There was consensus from both groups that we should not talk about differences but alternatives: ‘Alternative stories, alternative narratives, this is for me, diversity’ (SS2). If this kind of language can be incorporated in institutional communications, then that is a great opportunity for change. It is also clear that viewing diversity as a positive thing, rather than something that needs to be adjusted for, is becoming more mainstream. Nevertheless, language is extremely hard to change. It is part of our identity. One barrier exposed is the perception that changing language means losing something of oneself. The more diverse we are, the more varied our language and while we can have a set of definitions, we will never all speak the same language, actually or metaphorically. Making sure we are
speaking from the same page is vital and inclusive language means terminology and examples which are appropriate for the situation.

**External factors**

HE is not a closed system, and while societal factors are not, strictly speaking, a barrier to inclusive education they have an impact. Movements like Black Lives Matter are a driver in decolonisation initiatives which can prove extremely divisive. Participant discussions were varied on the subject but focused on the prominent historical figures in their disciplines, rather than current research. The history undoubtedly needs to be looked at, and with sensitivity, however, conversations around current research and the content we are developing and presenting now, need a much greater focus.

**Internal factors**

It was clear from the discussions that a significant opportunity for developing inclusive education is people. Not only those who are pushing for change, but those who are creating content and running inclusive projects. Institutions must make sure they are supported and recognised. They must also provide structure to enable projects to link up and have a wide impact. A disconnect between policy and practice is probably the biggest barrier to reaching the full potential provided by staff. Institutional policies must not only match the work the staff do but be communicated in such a way that it is clear what should be prioritised.

**Teaching and learning**

The different roles played by personal tutors, lecturers, and course designers has the potential to create excellent inclusive education. However, those roles and what they are responsible for need to be clearly communicated. It was also clear from the focus groups that time is a significant barrier. Change requires active input and that needs time – something which is in very short supply, leaving some inclusive strategies being somewhat superficial: ‘Ask any academic they’ll say. Of course, I do. I ask them to be critical. I make an interesting learning environment but then ask them, are you prepared to give them an exam where they can choose what they answer? Sorry, no’ (SS3).
Power and influence
Power imbalance caused by prejudice be it sexism, racism, or perceived or actually damaging institutional norms is ‘a big problem, but it's one that a lot of us feel empowered to challenge’ (SS1). We have people who are willing to fight for change, but institutions must support them. Without the support of senior leadership, provision of training, and a community of practice that enables reflection and sharing, this kind of change will remain in the hands only of the individuals that have the strength within themselves to take unsupported risks. Therefore, perpetuating the scenario in which those from minorities shoulder the greatest burden in the fight for equity.

Ranking the recommendations
Based on the focus group discussions the recommendations were reworked and categorised for challenge level (Table 1). The level of challenge is the same used in the focus group discussions but as these were at a single institution, they cannot be representative of the whole sector. However, the recommendations are defined from information gathered across HE and the ideas and challenges shared provide insight into the topic which could be widely beneficial.

Table 1. Categorisation of recommendations.

<table>
<thead>
<tr>
<th>Number</th>
<th>Recommendation</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Complete an unconscious bias course</td>
<td>implement immediately</td>
</tr>
<tr>
<td>2</td>
<td>Create a glossary to explain acronyms and new terms</td>
<td>implement immediately</td>
</tr>
<tr>
<td>3</td>
<td>Use images, questions, and examples that show a diverse range of people, and locations, or no people</td>
<td>implement immediately</td>
</tr>
<tr>
<td>4</td>
<td>Use they/them when gender is not specified or required</td>
<td>implement immediately</td>
</tr>
<tr>
<td>5</td>
<td>Vary teaching methods so students are given different inputs and styles which are relevant to the real world</td>
<td>implement immediately</td>
</tr>
<tr>
<td>6</td>
<td>Make content available in multiple formats (using Blackboard ALLY)</td>
<td>minor challenge – technical</td>
</tr>
<tr>
<td></td>
<td>Recommendation</td>
<td>Implementation Challenge</td>
</tr>
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<td>------------------------------------------------------------------------------</td>
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<tr>
<td>7</td>
<td>Provide students with learning outcomes and mark schemes and make sure they understand what is expected of them</td>
<td>minor challenge – technical</td>
</tr>
<tr>
<td>8</td>
<td>Use templates to make sure your content is uniform and accessible</td>
<td>minor challenge – technical</td>
</tr>
<tr>
<td>9</td>
<td>Create space for students to reflect and provide support for the students</td>
<td>minor challenge – skills development</td>
</tr>
<tr>
<td>10</td>
<td>Teach critical thinking/evaluation and create scenarios where it can be practiced</td>
<td>minor challenge – skills development</td>
</tr>
<tr>
<td>11</td>
<td>Teach study/professional skills</td>
<td>minor challenge – skills development</td>
</tr>
<tr>
<td>12</td>
<td>Set professional expectations of yourself and of your students and stick to them</td>
<td>minor challenge – professional practice</td>
</tr>
<tr>
<td>13</td>
<td>Share your content with a critical friend who has a different perspective to you</td>
<td>minor challenge – professional practice</td>
</tr>
<tr>
<td>14</td>
<td>Reflect on your own practice and any assumptions you are making about your students</td>
<td>significant challenge – cultural change</td>
</tr>
<tr>
<td>15</td>
<td>Avoid unexplained colloquial language and references to popular culture</td>
<td>significant challenge – cultural change</td>
</tr>
<tr>
<td>16</td>
<td>Challenge stereotypes</td>
<td>significant challenge – cultural change</td>
</tr>
<tr>
<td>17</td>
<td>Add students’ goals and values to your need’s analysis/introductions</td>
<td>significant challenge – information</td>
</tr>
<tr>
<td>18</td>
<td>Create activities that allow students to share/utilise their own experiences</td>
<td>significant challenge – process</td>
</tr>
</tbody>
</table>
Have a variety of assessment methods that are relevant to the learning outcomes and reflect the variety of teaching.

Provide pre-sessional content that addresses your pre-requisites.

Acknowledge and examine the profile of authors and use a range of representative resources (geographical and by author).

Role-model respectful behaviour and provide mechanisms to challenge misuse of power.

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**Implement immediately**

The recommendations listed as ‘implement immediately’ are those that are either being done already or perceived as easy to achieve with increased awareness and compliance with simple checklists. The use of images, questions, and examples from a diverse range of sources (3) is something that can be simply done with new content, however there is a significant opportunity here for further research into the level of representation, across all nine characteristics, that can be found in the external sources we use and the published content that is widely available. This will be a way of starting on the wicked challenge of examining author profiles and using more representative resources.

It should be noted however, that changing language so as not to use gender where it is not necessary may seem like an easy win, but linguistic habits are hard to break. In written communication where there is time to think this will come more naturally; in spoken communication this will take more time, even for those who are engaged and willing.

**Minor challenges**

These are recommendations that can be implemented in the short term but need certain things to be in place to support them. They can fit into three broad categories: technical or practical, skills development, and professional practice.
Those which are technical or practical in nature (6, 7, 8) are minor challenges because they require a high upfront investment in making documents/templates or staff training for accessibility tools. Once the time has been invested however, the benefits to students are high. There is a clear desire to use these tools, but the awareness of them and what they do is not there: ‘if that's what it does [Blackboard ALLY] then I ought to [be using it] for sure’ (TF3).

The second group is focused on development of/facilitation for skills development in students (9, 10, 11). Reflection, critical thinking, and study skills are integral to inclusive learning spaces, but they are often overlooked in curricula consequently becoming a ‘hidden curriculum’. Full incorporation into existing curricula is where the challenge lies. Scaffolding and signposting extra content, while not ideal, is a good start to the process of mainstreaming this kind of content in response to one of the overall challenges to come from the focus groups: time.

The final set of recommendations under minor challenge relate to professional practice (12, 13). In some ways these are easy to facilitate by simple processes but sharing content, like any peer evaluation process, requires buy in and has a tipping point at which it becomes sustainable in the longer term.

**Significant challenges**

Those recommendations categorised as significant challenges are in three groups:

- Those that require cultural changes (14,15, 16).
- Those which require information which is not easily accessible (17).
- Those that require changes to teaching and assessment process that will need strategic approval (18, 19).

‘Avoid colloquial language and (unexplained) references to popular culture’ (15) perhaps should not be a significant challenge, however the conversations during the focus group made it clear there are strong feelings about the subject. The phrasing of the recommendation has been edited to add emphasis to the word ‘unexplained’ as the original statement seemed to be taken as a desire to remove culture and identity from...
teaching. Bringing educator identity into a classroom is important, as TF1 said, when discussing buoyancy with students, a story about going swimming with their kid makes it more relatable.

Suggesting a strict formal language for the classroom is extreme, but colloquial language can be a barrier, especially if it is unexplained. Teachers are trained to modify their language, so it is suitable to their audience. The challenge will be how to explain this without teachers feeling they have ‘to paint out’ (TF2) their own identity in the name of inclusion. Teacher identity is just as important as the identities of our students, and should be similarly nurtured, but teachers still have a responsibility to make sure they are providing students with what they need.

Changes in the structure of assessments and teaching delivery are challenging in an entirely different way and the significance comes from the number of factors (institutional and external) that need to be considered before the language and inclusivity of the content is even considered. Finding space in curricula for students to bring in their own experiences will be key in the long term to making space for the ‘non-dominant demographic’, but this is not something that can be implemented quickly.

**Wicked challenges**

The three recommendations that have been categorised as wicked, or complex and extremely challenging, are all there for different reasons. Providing pre-sessional content (20), much like the use of colloquial language above, feels like it should be less of a problem, however personal experiences and the experiences of focus group participants highlight that the resource required to do it well is significant. It needs a combination of academic time to create the content, learning designers to build the content, institutional structures to allow content to be released pre-sessionally, and administrative time to make sure it all works. This is in addition to all the awareness of inclusivity so far discussed and while there is a clear rationale for pre-sessional content being higher up the recommendations order, putting this any earlier could result in the failure of other aspects.

With regards to the second wicked challenge, using representative resources (21), there is already a lot of work being done. The University of Liverpool have a ‘Decolonization Toolkit’ (Chavez and Asgari, 2020) and the Association of Learning Technologists have an
‘Anti-Racism’ special interest group with a national membership (ALT, 2021). However, the ethos of this research has been about inclusion in the broadest sense, which is why these recommendations do not use the term ‘decolonisation.’ Regardless of how broad the process, until there are more practical ways of carrying out this kind of work on a curriculum it will remain in the wicked category.

The final recommendation in the wicked category is to role-model respectful behaviour and provide mechanisms to challenge the misuse of power (22). This recommendation is disproportionately affected by institutional culture and requires long-term support and role modelling from the top down. It is possible that by working on other recommendations, if this kind of culture shift is needed, it will be accelerated as inclusive practice, as described here, becomes more of a mainstream aspect of higher education.

**Conclusion**

The recommendations listed here are not meant as a definitive resource, that would be anathema to the idea that inclusion cannot be solved by a checklist. It needs to critique the status quo and reflect on both barriers and opportunities to make practical changes and update policies. The research presented here is the beginning of this process at a single institution which lays the groundwork for other institutions to do the same by using these recommendations, as this project has done, to begin a conversation and reflect on what is needed in other contexts. Including how valid these recommendations would be to institutions around the world and what the UK sector could learn from similar work being done elsewhere.

Other questions have been raised from this work and warrant further research such as how representative curriculum content really is, and how institutional policies can be adapted to help empower staff to make changes and to support them in those endeavours. What was learned from this research and what will be wholly applicable to other contexts is that the motivation, determination, and passion for inclusive learning that is seen from practitioners is immense and if harnessed and supported institutionally and as a wider community of practice can be the beginnings of a movement that puts inclusive practices at the forefront of teaching and learning in higher education.


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**References**


Imperial College EDU (2021) ‘Inclusive Teaching Booklet’.


Sussex, University of (2022) ‘Teaching and learning activities’. Available at: https://docs.google.com/document/d/1vVPIUYAfDX7e8MJnmQlx74hxeS4FJGCZ4zGlm1mGNY/edit#heading=h.1w4bgzvqho1 (Accessed: 7 February 2022).


United Nations (2021) *UN disability inclusion strategy*. Available at: 


W3C (2019) *How to meet WCAG (Quickref Reference).* Available at: 

Wright, D. F. (2022) @Davey_F_Wright, 5 January. Available at: 


**Appendix 1: Toolkit analysis**

<table>
<thead>
<tr>
<th>Toolkit</th>
<th>Selected/relevant content</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALT framework for ethical learning technology (ALT, 2020)</td>
<td>Recognise your own (unconscious) bias. Be prepared to explain your course decisions. Recognise your own limits.</td>
</tr>
</tbody>
</table>
| **Clarify vocabulary, symbols, and syntax.**<br>**Supply background knowledge.**<br>**Decolonizing the curriculum toolkit**<br>(University of Liverpool<br>(Chavez and Asgari, 2020))<br>**Co-Op inclusive meetings**<br>(Co-op, 2021)<br>**Embedding equality and diversity in the curriculum**<br>(Advance HE<br>(Hanesworth, 2015))<br>**Imperial EDU inclusive teaching booklet**<br>(Imperial College EDU, 2021)| **Cover authors located in the global south.**<br>**Acknowledge and examine the profile of authors.**<br>**Get students to explore the historical context of the subject.**<br>**Only reward skills and competencies that are explicitly taught.**<br>**Provide academic/skills support**<br>**Set expectations early.**<br>**Do not assume prior knowledge (or anything).**<br>**Encourage curiosity (And criticality).**<br>**Use clear language – if you use acronyms explain them.**<br>**Recognise and handle power differentials.**<br>**Use inclusive language and avoid stereotypes.**<br>**Make sure the environment does not cause disadvantages.**<br>**Vary teaching methods.**<br>**Provide accessible content.**<br>**Provide content with contributions from diverse communities.**<br>**Explore your own identity.**<br>**Avoid the hidden curriculum**<br>**Use a variety of representative examples.**<br>**Consider the assumptions you make about your students.**<br>**Be aware of language.**<br>**Avoid the reinforcement of stereotypes – challenge them.**<br>**Flexible curriculum delivery.**<br>**The materials, resources and examples provided positively embrace the diversity of students' backgrounds, interests, experiences, and aspirations.**<br>**The environment is fully accessible.**
Use your enthusiasm to ‘recruit interest’ in students.  
Opportunities for reflections.  
Accessible resources.  
Link to prior learning.  
Link to the real world.  
Support time management/study skills. |
|------------------------|----------------------------------------------------------|
| **UCL BAME awarding gap project: Staff toolkit 2020. (UCL, 2020a)** | Use a diverse range of resources.  
Reflect on your own biases.  
Reflect on your assumptions about your students.  
Expose students to diverse role models. |
| **UCL inclusive curriculum health check (UCL, 2018)** | Create opportunities to discuss different perspectives.  
Have reading lists and resources that contain a diverse range of authors including those from different backgrounds and cultures |
Make content accessible.  
Navigable content with obvious focus.  
Unusual words and acronyms/abbreviations are identified and explained. |
| **Lincoln Education Toolkit for Student Success (Zhu and Sterling-Morris, 2021)** | Set expectations of yourself and of your students.  
Understand your own identity.  
Choose readings that reflect the diversity of contributors to the field.  
Use visuals that do not reinforce stereotypes and include diverse people or alternative cultural perspectives.  
Emphasise the range of identities and backgrounds of experts who have contributed to a given field. |
| Use varied names and socio-cultural contexts in test questions, assignments, and case studies. |
| Deliberately choose course materials with a range of student physical abilities in mind. |
| Deliberately choose course materials with students’ range of financial resources in mind |
| Vary teaching methods. |
| Avoid making generalisations about students. |
| Model productive disagreement, showing how to critique a statement or idea rather than the speaker. |

**Author details**

Katie Stripe is a Senior Learning Designer in the Education Office at Imperial College London. She is a Senior Fellow of Advance HE and a Certified Member of the Association of Learning Technologists. She writes and designs content for online student support programmes and works on a range of projects to make the student journey more inclusive.

Iro Ntonia is a Senior Teaching Fellow in Educational Development and MEd course director at Imperial College London in the Centre for Higher Education and Research. She is a Senior Fellow of Advance HE and has a PhD in Behavioural Neuroscience. Her research interests include educational neuroscience and psychology and individual variability in learning.

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22 recommendations for inclusive teaching and their implementation challenges