Inclusive approaches in learning and teaching

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ABSTRACT It is well documented that participation in higher education increased significantly during the 1990s. This has been accompanied by the diversification of the student population, posing exciting challenges and opening up new avenues for research in order to understand the learning experiences of international students, students with disabilities, mature students and first generation students. Northumbria University, wishing to develop a better understanding of the learning needs of diverse student groups through projects to identify and disseminate good practice, undertook a large-scale survey during 2003/4. Informed by a number of literature sources on the pedagogical needs of a diverse student group, respondents were asked to respond to 80 statements surrounding student learning. This article summarises the findings of the survey and suggests pedagogical approaches, identified as good practice, in addressing the needs of the differing student groups. Some recommendations, at first sight, appear only to relate to one specific student group, e.g. international students. However, it is suggested that the adoption of the recommended practices may be of benefit to all students.

Introduction

The increased participation and the diversification of the student population is now posing exciting challenges and opening up new avenues of research in order to understand the student learning experiences of a contemporary student group, comprising international students, mature students, students with disabilities and first generation students.

At Northumbria University since 2000, the number of registered students has increased from just fewer than 20,000 to over 25,000 students, with a further 3000 at newly created overseas franchises. Numbers of international students have almost doubled and there have been steady proportional increases in mature students (classified as aged 25 or over), students with disabilities and first generation students. George and Gillon (2001) have indicated the realistic implication of widening participation in higher education (HE) is significant institutional, curriculum and staff development, derived from a student-centred focus. Skilbeck and Connell’s (2000) summary of barriers to student access and progression indicated that HE staff may have a lack of understanding of the needs of particular student clusters and a possible unwillingness or inability to provide support for such groups.

In order to develop a better understanding of the learning needs of Northumbria’s diverse student populations, a number of projects designed to identify and disseminate good practice were undertaken. The largest of these, a large-scale student survey covering a number of student learning aspects, forms the basis of this paper. A selection of significant findings across different aspects of the student learning experience is presented and discussed in the context of associated literature for a relevant student cluster. Each section is concluded with some headline recommendations on what adjustments lecturers could make to overcome barriers to learning which, although they may at first appear to be of more relevance to a particular student cluster, in actuality can create an inclusive learning environment of relevance to all. To begin with, we discuss the context and definitions of Northumbria’s student cohorts and the subsequent clusters on which discussion and recommendations are based.
**International students**

In this era of globalisation, through sharing of cultures, international students can enrich academic life, giving the potential for the development of curricula and of students’ intercultural skills, the latter of which are increasingly valued by employers (Ryan, 2000; Wisker, 2000). There are many reasons why international students wish to study outside their home country. However, in choosing a university, primary considerations are academic reputation and content of the programme (Bamford et al., 2002; Barker, 1997; McNamara and Harris, 1997). This demonstrates the importance of the role of staff in having an understanding of other cultures and the willingness to adjust teaching to create pedagogies that are culturally fair, inclusive and meaningful for all the participants in the education process.

Around 12.6 per cent of Northumbria’s total student population are classified as international students, the vast majority of whom originate from the Pacific Rim region and, therefore, subsequent international narrative contained in this paper relates to students from this region.

**Disabled students**

The term ‘disabled students’ is used to reflect the social model of disability to which Northumbria University subscribes (i.e. that individuals may have impairments but it is society and the way in which it is structured which disables them). Northumbria University currently has 1186 students registered with the University Disabilities Service. Figure 1 illustrates the range and number of conditions recorded. It also illustrates that the highest incidence of disability was of students diagnosed with, or being tested for, dyslexia; therefore subsequent narrative refers in the main to students with dyslexia.

**Non-traditional students**

No standard definitions of non-traditional students exist and the literature explored as part of this research has defined this group through a myriad differing traits such as ethnicity, gender, social class, age and family background (e.g. Wilson, 1997; Kimbrough and Weaver, 1999; Bowl, 2003; Leathwood and O’Connell, 2003). More commonly, specific definitions are provided of ‘elite’ or ‘traditional’ students, i.e. predominantly white, upper/middle class 18 to 24 year-old students with a family history of attending higher education institutions (HEIs) (Laing and Robinson, 2003; Leathwood and O’Connell, 2003). In the authors’ research (and this article), based on anecdotal knowledge of the student population, two ‘non-
traditional clusters were prominent within the student population: mature, defined as someone aged 25 or over in line with Northumbria University’s own definition; and first generation, i.e. someone who does not have a family history of entering HE.\footnote{2}

**Methodology**

A questionnaire of 80 Likert scale statements was developed based on relevant literature and knowledge gained from a number of complementary university projects, e.g. experience of students with dyslexia and pre-sessional English language experience of international students. The questionnaire was e-mailed to all students (approximately 25,000) and a total of 1786 were returned. Based on the knowledge of the student cohorts above, our comparative analysis was based on four student clusters we felt illustrated the changing dimensions of a Northumbria student group compared to that of ten or fifteen years ago, namely:

- International students compared with UK students.
- Disabled students compared with non-disabled students the vast majority of whom were students with dyslexia.
- Mature students, compared with students aged 18 to 24.
- First generation students compared with second+ generation students.

Proportionate representations of student returns from the defined clusters are illustrated in Figure 2. In all cases, numbers of returns were felt to be illustratively proportionate to the general student population at Northumbria.

**Discussion of findings**

As well as providing an insight into the learning needs of differing student clusters within Northumbria University, the main focus of this discussion is to suggest that teaching practices that are designed to remove barriers to learning for one particular student group will actually benefit all student groups.

1. **Preparedness for HE**

In examining student preparedness for HE, the concerns surrounding international and non-traditional students featured prominently within existing literature.

In the former case, the adaptation of students from the Pacific Rim to western academic practice is well documented (Introna et al., 2003; Ryan, 2000). Studies concur that international students entering the western academic system are required to change their cultural identity with regards to ways of thinking and writing. Bamford et al. (2002) found that the international students acknowledged differences between the learning styles in their home countries and in the UK. The move to a more independent learning style was generally seen as a positive thing, although the students needed time to adapt.

Regarding mature students, whilst the Government displays a belief in, and commitment to, widening participation in HE, Leathwood and O’Connell (2003: 599) comment that those who argue against widening participation view non-traditional students as being ‘…deficient: in ability, in not having a “proper” educational background, or in lacking the appropriate aspirations and attitudes’. However, Bowl (2001) notes that many non-traditional students are not
adequately informed, advised or prepared for HE by their schools. A number of statements examining the learning environment of HE were included in the survey (Table 1).

In line with Bowl’s (2001) findings, significant differences ($p<0.01$) were found between non-traditional and traditional student groups in respect of school preparation. On the other hand, Wilson (1997) and McGivney (2004) note that mature students are usually more motivated to study and have a greater sense of what they expect to gain from a university education than younger students, a finding that was echoed in the Northumbria survey.

Along with mature learners, international students displayed a greater tendency to regard seminars positively and to conduct preparatory reading beforehand. Indeed, 31 per cent said that they spent a lot of time preparing for classes. This is significantly higher ($p<0.01$) than UK students, where only 17 per cent undertake preparatory reading. Even though international students have to make a cultural adaptation to the interactive seminar style, 59 per cent of international students in this study stated that seminars help them learn, which is significantly higher ($p<0.01$) than the 39 per cent of UK students who said the same.

### Recommendation for practice

The early distribution of comprehensive teaching and learning plans may be one major way in which students can be helped to feel more confident in their preparedness. Early distribution will enable students to plan their academic work around any commitments (e.g. hospital appointments, part-time working arrangements, child care, etc.).

<table>
<thead>
<tr>
<th>Statement</th>
<th>Percentage Agreeing with Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>School prepared me well for university</td>
<td>Mature</td>
</tr>
<tr>
<td></td>
<td>23</td>
</tr>
<tr>
<td>I know what to expect from a university education</td>
<td>65</td>
</tr>
<tr>
<td>I spend a lot of time preparing for classes</td>
<td>27</td>
</tr>
<tr>
<td>Student led seminars help me learn</td>
<td>42</td>
</tr>
</tbody>
</table>

Notes: Shaded areas indicate differences at the 99 per cent significance level, i.e. ($p<0.01$).

### 2. Classroom contact

Within the widening participation agenda, universities are generally required to increase student numbers whilst limiting staffing levels. This often results in decreasing face to face contact with students and increasing reliance on instruction and information in a written format plus didactic formats, such as lectures, as the main forms of communication.

In lectures, international students can encounter problems if the lecturer’s speed of delivery is too quick and/or if he/she has a pronounced regional accent. The use of colloquial English and unfamiliar terminology leads to an inability to determine what is relevant and can affect note taking in lectures (Shakya and Horsfall, 2000; Beaven et al., 1998). For disabled students, literature suggests that the combination of note taking and listening may cause difficulties. This may be a physical difficulty, a difficulty with pace of speech, e.g. lip reading, British Sign Language (BSL), a difficulty with interpretation, poor short-term memory (dyslexia) or visual difficulty (e.g. size of handwriting or font used - this is addressed in the next section on reading and writing) (Morgan and Klein, 2000; Caulder, 2001; Doyle and Robson, 2002; Fuller et al., 2004). Three statements on the questionnaire addressed issues specifically relating to these issues (Figure 3).

The number of international students who said that they found it hard to listen to a lecture and take notes at the same time was only marginally higher than the proportion of UK students but, in the case of disabled students, almost double the number reported having difficulties taking notes whilst listening in lectures ($p<0.01$).
Language and, in particular, accents caused difficulties for international students \( (p<0.01) \) and disabled students \( (p<0.05) \) when compared with UK and non-disabled students respectively. There is some indication from this study (Figure 3, statement 3) that, although not statistically different, disabled students may also have greater difficulties with the pace at which lecturers speak than non-disabled students, whereas international students do appear to have greater problems with the pace of delivery in lectures than UK students \( (p<0.01) \). Results analysed by year group indicated this did improve somewhat over time in that year two and three students were less likely to agree that their teachers talked too quickly than those in their first year.

In the case of other forms of classroom contact, for example, seminars, the unfamiliarity of classroom interactivity can serve to exacerbate international students’ lack of confidence in their language fluency. Indeed, this latter point was indicated in the survey where 57 per cent of UK students were used to interactivity and classroom discussion, in comparison to 46 per cent of international students \( (p<0.01) \). A number of statements in the survey specifically addressed areas of language fluency (Figure 4).

In all cases, significant differences were found \( (p<0.01) \) between international and UK students. The speech related responses from the survey indicate that many international students have less confidence than UK students with their speaking ability. Confidence associated with language fluency potentially has a major impact on the establishment of relationships with peers.

Recommendations for practice

With lectures often making up the majority of student contact time with staff, there are a number of relatively simple changes which could be made to help overcome some of these general difficulties.

Lecture sessions could be slightly restructured to include ‘paused marker’ points, allowing extra time for processing of information (particularly helpful to students with dyslexia), time to make translations from English to a first language and time to make notes. This could be achieved by giving an introduction/overview of the lecture content to signpost what the lecture is going to cover and then, perhaps two or three times during the lecture, pause to review the subject matter therein. Students may also benefit when lecturers make use of microphones (if available), as these can assist in cutting through external environmental noises. In addition, permitting students to make audio recordings of lectures and discussions allows for a self-paced review opportunity.

Figure 3: Statements linked to lecturer communication

Statement 1. It is hard to listen to a lecture and take notes at the same time
Statement 2. Teachers have accents that I can’t understand
Statement 3. Teachers talk too quickly

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This was examined by asking if students liked being in a classroom with a cultural mixture of students. Nearly three quarters (73 per cent) of international students answered affirmatively, whereas only 47 per cent of UK students agreed that they did - a very significant difference of opinion.

The implications of cultural mix between UK and international students at Northumbria are not unique. Bochner et al. (1985) found that only seventeen per cent of international students had a UK student as their best friend and 70 per cent had no British friends at all. Other studies conducted in the UK, such as Furnham and Bochner (1982) and Furnham and Alibhai (1985), produced similar findings.

An apparent unwillingness of some home country students to interact with international students leaves the latter with no other choice than to mix with students from their own cultural background to avoid feelings of isolation and loneliness (Makepeace, 1989; Shakya and Horsfall, 2000). Watkins and Biggs (1996) suggest that, as international students turn to their fellow nationals to form groups, this leads to resentment from UK students, thus compounding the problem.

Shakya and Horsfall (2000) comment that many international students have difficulties joining culturally mixed groups and are rarely assisted in doing so by staff, as many assume that all students have equal social skills.

Perhaps lecturers can adopt the following practices to encourage the establishment of relationships, in particular, between students of different cultural backgrounds.

### Recommendations for practice

At the start of a module, if possible, organise informal activities that allow the students to introduce themselves to each other, e.g. icebreakers or ‘sociograms’. Whenever feasible, ensure UK and international students are mixed together. For example, a group of four could be made up of two international plus two UK students, which may facilitate peer support, cultural exchange and greater confidence. Agree as a ground rule that, at least for the first few weeks in group discussions, only one student speaks at a time and that there are pauses in between contributions. Ensure that discussions revolve around issues common to all cultures and avoid highlighting differences between cultures. Encourage international students to talk about their experiences and indicate to the whole group that all can learn from other cultural paradigms.

### 3. Reading and writing

In terms of reading and writing skills, there is a general western academic perception that Pacific Rim students are rote learners (i.e. they simply memorise text rather than understand and critique it). This notion originates from a partial truth: memorisation is a teaching method, but is only the primary stage in their learning process. Only when Pacific Rim students feel...
they have mastered the subject and have accurate recall of texts do they then progress on to the creative thinking. Notably, numerous studies indicate that, contrary to perceptions, Pacific Rim students achieve higher academic levels of understanding than western students (Gow et al., 1996; Volet and Renshaw, 1996).

As the accurate recall of texts is not required in the western academic system, many international students are required to change their reading strategies. For example, they may think that all books on a reading list have to be read cover to cover and fully understood. Furthermore, some are unlikely to be evaluating the contents of the books due to the respect that they have for academic authors. They are also unlikely to know that they are expected to go beyond the reading list and find other sources of information. If they are unaware of this last point, it is unlikely that they will have the skills to be able to judge what is core and peripheral material, as well as how to judge the authority of a source.

Reading and writing ability are also well documented as particular issues for students with dyslexia, with much of the literature on disabled students being focused in this area. Visual processing difficulties can adversely affect reading comprehension; similarly, auditory processing difficulties can adversely affect reading new words. Concentration span is an issue both for students with mental health issues and students with dyslexia. This could be manifested by being easily distracted, resulting in the reading process becoming very slow and laborious, and less focused (Morgan and Klein, 2000; Caulder, 2001; Doyle and Robson, 2002).

In the survey, Northumbria students were asked to respond to a number of statements relating to reading and writing (Table 2). Twice the number of international students to those from the UK felt that they had too much reading to do at university ($p<0.01$). This may have been further exacerbated by the much higher proportion of international students who tried to make sense of each word when reading ($p<0.01$). A greater proportion of disabled students in

<table>
<thead>
<tr>
<th>Statement</th>
<th>International v UK</th>
<th>Disabled v Non-disabled</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have too much reading to do at university</td>
<td>52</td>
<td>26</td>
</tr>
<tr>
<td>When reading I have to try to make sense of each word</td>
<td>47</td>
<td>27</td>
</tr>
<tr>
<td>I can make notes from textbooks</td>
<td>61</td>
<td>76</td>
</tr>
<tr>
<td>I can write summaries of academic texts</td>
<td>40</td>
<td>44</td>
</tr>
</tbody>
</table>

Notes: Negligible percentage differences were found between the Mature v. 18-24 and the 1st Generation v. 2nd+ Generation clusters and, therefore, figures were excluded from the table.

Recommendations for practice

Reading lists, as mentioned previously, allow more time for students to become familiar with the texts; it is helpful to indicate which materials are essential or core and which are peripheral.

Attempt to keep written information short, i.e. words, lines, sentences (e.g. fifteen to twenty words recommended), paragraphs, etc. As a standard, on handouts, presentations, etc., use Arial or ‘sans serif’ fonts (specify minimum size: handouts, 12 pt; PowerPoint, 20 pt). For highlighting purposes, use either bold for words or short phrases, or a boxed border for longer phrases or paragraphs. For many students with dyslexia italics or underlining can concatenate words.

The use of a variety of visual material, e.g. pictograms, bullet lists or flowcharts, to present material could be considered. It may also assist to assume that students have no background knowledge. Explaining and reiterating key concepts and subject or UK specific abbreviations may benefit all students.
comparison to non-disabled students ($p<0.01$) felt they had overmuch reading to do, indicating that reading may be a more time consuming and laborious process for these students. For both disabled and international students, significantly lower proportions ($p<0.01$) stated that they could summarise academic texts. Although some of the international student findings cannot be divorced from language ability, the large differences between responses for reading corroborate the literature, suggesting that some international students are used to thoroughly reading all items on a reading list. There is also indication that western writing may be unfamiliar. This suggests that assignments, the majority of which are written, will potentially be very problematic.

With significant differences found in all statements relating to reading and writing, the need to introduce practices that may assist students in studying is apparent.

### Assessment

The survey addressed the issue of assignment work in a number of different ways, including the management of study tasks relating to assessment and sources of information used on assignments.

Issues of time management can significantly impact on student ability to undertake assignment work. In particular for disabled students, time management difficulties may occur due to the inherent nature of their disability or because study time available is restricted owing to the effects of disability. For example, dyslexic students may obviously need more time than traditional students for reading. For many disabled students medical appointments, along with possible daily changes in the severity and effects of their illness, may adversely impact on study time required for assignments. Blind/partially sighted students may need to wait for texts or materials to be converted into an appropriate format (such as Braille, magnification of text, etc.).

Students were asked to respond to six statements in relation to general issues surrounding assignments and time management. The results tabulated in Table 3 show that, once again, the main differences occurred in the international and disabled student clusters. Almost half of the disabled students, and significantly more than the non-disabled students ($p<0.05$), stated they had problems organising their own study time. More non-disabled and UK students said that, in general, they could meet deadlines as opposed to disabled and international students respectively. However, when considering assignment deadlines, no significant differences were found between the groups.

With respect to revision, lower proportions of disabled students reported being able to do this efficiently and effectively. Notably, whilst over one-third of the

<table>
<thead>
<tr>
<th>Statement</th>
<th>International v UK</th>
<th>Disabled v Non-disabled</th>
<th>1st Generation v 2nd Generation+</th>
<th>Mature v 18-24</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have problems organising my own study time</td>
<td>30 37</td>
<td>48 36</td>
<td>37 37</td>
<td>37 36</td>
</tr>
<tr>
<td>I can meet deadlines</td>
<td>69 84</td>
<td>72 82</td>
<td>83 80</td>
<td>82 81</td>
</tr>
<tr>
<td>I usually complete assignments on time</td>
<td>77 87</td>
<td>78 85</td>
<td>86 84</td>
<td>85 87</td>
</tr>
<tr>
<td>I can revise effectively</td>
<td>39 44</td>
<td>28 44</td>
<td>45 40</td>
<td>43 43</td>
</tr>
<tr>
<td>I need simplified assignment instructions</td>
<td>65 42</td>
<td>57 44</td>
<td>45 43</td>
<td>45 44</td>
</tr>
</tbody>
</table>

Table 3: Statements on assignments and time management
general student population indicated that they need simplified assignment instructions, international and disabled student groups expressed a higher preference.

**Recommendations for practice**

Expand upon an assignment task by, for example, explaining its purpose, decoding the assignment title, etc. If possible, give the student signposts for planning, e.g. breaking down assessments into different stages and suggesting appropriate spacing of workload. This could be achieved by setting deadlines for individual tasks.

Provide examples of previous students’ written work to demonstrate how materials have been used selectively, how sources have been used and how arguments can be built up. Also provide examples of poor work to demonstrate issues, such as use of material that is lacking in authority or poor referencing.

4. Plagiarism, referencing and information sources

Plagiarism is an issue of increasing concern amongst academics and often expressed in relation to international students. A neglect of appropriate referencing among international students is frequently a reflection of other cultures’ differing academic practices. In some cultures, knowledge is considered to be in the public domain while other cultures believe, according to Ladd and Ruby (1999), that alteration of an authority’s original words is disrespectful. Unacknowledged verbatim reproduction of texts and lecture notes is, therefore, expected practice in some eastern cultures according to Ballard and Clanchy (1997). In consequence, many international students find it very strange that they need to paraphrase a point made by an ‘expert’ who will be able to make that point better than they ever could, and in a second language (Ryan, 2000; Introna et al., 2003).

Table 4 lists the responses to the statements linked to sources and referencing. Only in comparing the international and the UK student responses were statistically significant differences ($p<0.01$) found. Although the results indicate that the majority of international students are aware of many of the

**Recommendations for practice**

Perhaps the simplest advice is to take steps to design out plagiarism. Ensure that assignment topics and essay titles are changed frequently. Try to introduce an element of individualism into the assignment, e.g. use of portfolio, introduction of an element of reflective practice, etc. Explicitly explain that views in texts can be legitimately challenged and give examples of two texts that offer alternative viewpoints or explanations.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Percentage Agreeing with Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is best to get your ideas from the internet</td>
<td>46 11</td>
</tr>
<tr>
<td>I understand the need to use referencing and quotation marks in assignments</td>
<td>78 91</td>
</tr>
<tr>
<td>The best way to present key ideas in an essay is to present the ideas of the authors in their own words</td>
<td>39 20</td>
</tr>
<tr>
<td>Sometimes the textbooks express the subject in a way, which can't be improved. It is right to repeat their words in an assignment</td>
<td>36 27</td>
</tr>
<tr>
<td>I feel uncomfortable about rewriting important authors’ statements in my own words because I believe they are the experts</td>
<td>38 23</td>
</tr>
</tbody>
</table>

Notes: Negligible percentage differences were found between the Disabled v. Non-disabled, Mature v. 18-24 and the 1st Generation v. 2nd+ Generation clusters and, therefore, figures were excluded from the table.
elements in western academic writing, it is in lower proportions to their UK counterparts. The highlighted feature of difference is the greater reverence for the ‘experts’ within subject literature.

Conclusion
Throughout the research, it is clear that two of the student clusters surveyed illustrate a number of significant differences from their counterparts, namely international students and students with disabilities. However, as indicated by Northumbria’s student profile, further, more specific inferences may be made. The international student group is largely made up of students from the Pacific Rim and it is clear that there appears to be a cultural divide between academic practices used in their home countries and what is expected in the western academic environment. International students make substantial personal and financial commitments and investments when coming to a UK university and only small modifications to academic practice may improve the learning environment.

Students with disabilities expressed many of the same concerns as international students and, again, we can suggest that those from students with dyslexia may be significantly reduced.

Northumbria University has traditionally attracted a large proportion of students from non-traditional backgrounds (i.e. mature, first generation) and many of the teaching and learning practices have naturally adapted and reflected the needs of students. This appears corroborated by this research which indicates that relatively few differences were found between these student groups and their more traditional counterparts. However, adjustments made to take account of the needs of international students and students with disabilities are likely to improve the learning environments for all students.

References
Notes

1 Given the ambitious nature of the project, a number of internal reports (known as Red Guides) have been produced which consider an individual student cluster in more detail, and are available for purchase from Northumbria University at http://northumbria.ac.uk/sd/central/library/marcet/redandrecapguides/redguides/:  
   Paper 3 Barriers to Learning - the DISABLED student perspective for enhancing pedagogical practice  
   Paper 4 Barriers to Learning - the INTERNATIONAL student perspective for enhancing pedagogical practice  
   Paper 5 Pedagogical needs of non-traditional students.

2 No standard university statistics are collated on widening participation demographics other than age group. Although ethnicity figures are available, these do not make any distinction between the UK and international cohorts.