

Dyslexic learners and learning centre provision – could do better?

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Background and rationale

Learning Centre staff at the University of Wolverhampton generally have good awareness of disability issues and try to ensure services and facilities are accessible to a wide range of users. However, little work had been done *directly* with users to explore their views of our services and the problems they might face when using them.

The research targeted dyslexic learners as the University has a relatively large population of students with this disability. In addition many of our services rely on an ability to cope with printed and electronic information and these might pose particular problems for users with dyslexia. The services might include apparently simple elements such as guides to particular Learning Centres through to more complex examples including the subject web pages and information skills workshops.

The research

The project involved a review of recent literature (Appendix 1) followed by focus group sessions with dyslexic students. These sessions were to be structured around examples of services and the gathering of feedback from participants. This would then form the basis for a number of best practice recommendations.

There were a number of problems associated with this approach. Not least was the extreme difficulty in attracting volunteers to participate in the project. The research team were however able to meet with dyslexic learners via the Module Leader of FD1001 during scheduled class time.

The final project is based on 5 participants (as opposed to the 15 –20 originally planned). However, this should in no way devalue the feedback given by participants. Rather, this offers a platform for further, wider research in the future.

The Focus Group

The focus group session with level 1 students taking module FD1001 took place over a two-hour period. Two groups of students were presented with a number of service areas and related scenarios asking for feedback on any problems or difficulties. This first section dealt with our general services and facilities; the second with printed information and the third with examples of on-line information.

Outcomes

Activity 1 – Feedback on general services

Finding books/materials on the open shelves

- Class numbers are too long and confusing
- There is no logic to the arrangement [*of stock*]
- Need clearer signs at the end of shelving runs

- General signage is unclear – use of colour and choice of fonts
- Use of pictures and symbols would help
- Signs should hang from ceiling
- Colour coding of stock areas would help

The groups reported that it was often difficult to navigate their way around the shelves and that they found the classification system difficult. It has to be noted that library classification systems can be confusing to a range of users and not only those with dyslexia. However, these users did find longer numbers difficult to deal with.

Dyslexic students navigate their way around numbering systems on the basis of a learnt pattern that numbers will follow sequentially one to another. For example, they would expect the class numbers to run from 000 to 999 in a continuous sequence. Any break or jump in that sequence could cause considerable confusion. Hence comments on the lack of logic in some stock arrangements.

Signing emerged as a significant area of concern. It was felt that signs should be used within areas of subject stock to clearly identify that area. Participants suggested that signs from ceilings indicating the stock area would be of great help. In the same vein participants felt that colour coding of stock areas would also facilitate access. Both of these approaches would create an easily identifiable link between the sign and the resources that dyslexic learners could then learn, retain and rely on as a memory prompt.

Using the Enquiry and Help desks

- A helpful service which students used
- Librarians are approachable
- It would be useful if class numbers could be written down for students to take away to shelves to help short-term memory problems
- IT staff need to offer more one-to-one support

It was clear that participants valued this service. The issue of IT support is significant and is discussed below under “IT Facilities”.

Renewing books

- Need instructions in clear fonts and pastel colours
- Rather use the Issue Counter to ensure books are renewed
- Have problems remembering PIN number

Again, the presentation of guidelines was seen as important. Font and colour choices are key to success. The problem of remembering PIN numbers (essential to accessing borrower record via the Online Public Access Catalogue -OPAC) is perhaps a common one. All students are given a written record of this on request. Many students may lose this and forget the number. However, number retention and recollection may be an issue for some dyslexic learners.

Using Photocopiers

- Easy to use except for the fact that error messages are difficult to read
- Would be useful to be able to use coloured paper in the copiers

Coloured paper had also been raised at initial awareness training undertaken by the research team. Many dyslexics have preferred colours that facilitate easy reading. Colour preferences can be highly individual. The group confirmed that this was the case and that a supply of paper in various colours for use by dyslexic students would be a welcome innovation.

Using the Online Public Access Catalogue (OPAC)

- Needs a spellchecker facility in the search area
- Have problems searching for journals on the OPAC
- Font could be larger and clearer
- Colours are “ok”; but would be useful to have the option to change background colour
- Accessing OPAC from home is less stressful than using it in the Learning Centre

Participants reported that their main difficulties with OPAC were that the search facility did not detect or allow for spelling errors – clearly a difficulty for the dyslexic user. The consequences of this are that a search might result in a nil result even though the item in question is actually held on the catalogue. Colour and font were again raised as issues and notably the request for options to customise screens to accommodate individual needs. The comment about access from home is significant. It suggests that concentration and time may be an important factor in using OPAC for these students.

Using IT facilities

- Would be useful if students could change background colours of computers
- Could there be basic workshops for dyslexic students new to computers?
- IT staff, especially student helpers, need to offer a more one-to-one service. They need to understand that some dyslexic students lack confidence and don't like asking the same questions over and over again.
- Would be useful to have a quiet IT room where they could concentrate. The IT suite at Harrison Learning Centre is too noisy.

These comments point to the need for a different approach to provision of IT for dyslexic learners. Customising of screen colour is again raised as an issue, as is the need for quiet when using the facilities. Concentration (see also comments above about OPAC) is clearly important to this group of students. This may be at variance with preferences of other, non-dyslexic students, who are perhaps happier to work in busy IT areas which can generate higher levels of background noise.

The issue of personal support is also worthy of comment. Again this is an area where many of our students may need additional support and may lack confidence. However, this may be compounded in the case of the dyslexic learner where problems of display format, character recognition and memory problems will also play a part. It is also interesting that this group highlighted the role of student IT helpers in relation to one-to-one support. This is perhaps a training issue for staff and particularly student employees.

Activity 2 – Guides and Leaflets¹

In this activity the two groups were asked to look at a range of Learning Resources guides, promotional materials and help leaflets. They were asked to highlight both good and bad practice in the context of dyslexia.

Group 1 comments

- Use a clear font in size 12+ such as Comic Sans or Arial
- Avoid fancy fonts, shading and outline text as these can make letters dance on the page even more
- Use pastel colours for background
- Avoid bolding words in the middle of sentences or paragraphs

¹ Examples of guides and PC screens are not included within the report. Please contact the Department of Learning Resources if these are required.

- Try to use bullet points
- Have headers in a larger and bolder text
- Don't have too much text, as it can be off-putting. Try to use picture and diagrams instead. The IT help sheets were considered very helpful in this respect as they include illustrations and pointers
- Humanities, Languages and Social Sciences self tour (Harrison Learning Centre). The font and paper are good but the floor plan is too small

Group 2 comments

- Essential Guide to Learning Centres. The group liked this guide as it uses white type on black and black on gold providing a good contrast. They also felt that the layout was helpful
- Emerald Full-text: looks daunting and includes too much information
- Project Muse: has clear type and a good layout but the paper is too bright in colour. Full text journal databases. Use of special effects not considered helpful
- Human Resources Journal: typeface is too small

All group comments

- Short loan form was considered to be usable
- Inter-library loan form was thought to be difficult to use. Students would choose to complete the form at home

Activity 3

The third and final activity covered visual elements from Learning Resources Information Skills workshops. The whole group was shown a number of OHP slides representing PC screens that might be used in formal workshop sessions or that students might encounter when using Learning Centres.

- OPAC slides. The group repeated that a spell checker option would help them in their searching. They also reported that they had not noticed information regarding site location and class number of particular texts due to a problem in the spacing of the text which appears very close together
- University Home page. Students found this accessible
- Subject web page. Student found this accessible
- PowerPoint slides on Social Policy. Background pink was readable
- Search engines. Students commented on the clear layout and the use of bullet points and numbered lists. These were considered to be particularly good features as they help with reading the text and moving down the page
- Evaluating Internet resources. White type on the green background was clear, bullet points are large and very helpful and the layout is balanced
- Using Boolean Operators. The group did not like the textured background and found the ring binder effect distracting
- "And" operator. The diagram approach is helpful in explaining content of the slide
- Web of Science log-in page. Too much information provided on a single screen

Benefits

The research provides a variety of benefits. These include an improved awareness of dyslexia and problems faced by dyslexic learners, an improved understanding of how the design of our services impacts upon the dyslexic learner's experience and a number of possible changes to our services which would help dyslexic students get the best from Learning Centres.

It is clear from the research that the presentation of information is critical, as is an awareness of the arrangement and accessibility of our resources and how we support dyslexic learners to get the best from them. Generally our services seem to meet the needs of this group of dyslexic students. Personal support is offered and appreciated, although there are areas where more is needed. Our OPAC system is acceptable but would benefit from some changes. The majority of the slides we might use during a workshop would work for a learner with dyslexia. We produce a wide range of guides and leaflets and some of these offer pointers to good practice whereas others are considered unhelpful.

Evaluation

An evaluation of the research will depend upon any changes to services and their design and customer reaction to them. However, the recommendations resulting from this study are drawn directly from the comments of dyslexic learners and they have clearly valued the project and its potential results.

Future Developments

The outcomes of this research provide an opportunity to review and improve existing Learning Centre Services and to ensure that future service design takes clear account of dyslexic needs. The following recommendations should be actively considered:

General Services

- Provide clear signing in Learning Centres and particularly around shelf areas
- Arrange stock in logical sequence
- Use pictures to guide wherever possible
- Encourage one-to-one support wherever possible and particularly by IT helpers
- Provide a range of coloured paper for use in photocopiers
- Explore the possibility of a spellchecker on OPAC search facility
- Review fonts and point size on OPAC
- Introduce customisable screen colour on OPAC
- Explore possibility of dedicated IT workshops in association with FD1001
- Consider provision of some quiet IT areas to aid concentration

Design of Guides and leaflets.

We recommend that a set of style guidelines are developed within the department to include the following:

- Use a font such as Comic Sans or Arial
- Use point size in 12+
- Use pastel colours as background
- Avoid bolding words in the middle of sentences or paragraphs
- Try to use bullet points
- Embolden and enlarge headers
- Do not use too much text
- Use images

Information Skills Workshops

- Use illustrations where possible
- Avoid over elaborate backgrounds
- Use bulleted lists

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Appendix 1

Literature Review

In order to frame the research for the project an initial literature review was performed, searching for studies conducted within other institutions, concerning support networks for dyslexic learners. From the initial search of literature sources it was apparent that a number of academic institutions had similar disabilities guidelines in place and a support network exhibiting their policies in relation to dyslexic learners. It was also the job of the literature reviewers to search for more academic research reports that focussed on dyslexia awareness, study skills and support. For this the research team used a number of on-line catalogues and databases to search for relevant literature within journals, conference proceedings and on-line organisations concerned with dyslexia awareness and support.

Having attained a large selection of printed materials concerned with dyslexia, it was apparent that there was a great deal more literature around children with dyslexia, focussing on identification and teaching methods. Whilst this literature was of assistance in understanding the nature of dyslexia, it was not relevant to adult learners and hence omitted from the final review. In addition to this material there were also a number of studies concerned particularly with the competencies of existing IT based support packages for dyslexic learners, these again were a little out of date and too specific for our study.

What was left at the end of this initial review were a number of texts that were considered to be of particular interest to our study. These texts were attained from other Universities web pages, conferences/organisations with a particular interest in support for adults with learning difficulties, and a small number of academic papers from relevant journals. It was considered that for the size and nature of the study these texts should contain enough information for us to conduct a detailed study of how learning resources within the University can maintain the high standards of support for all students and in particular develop better support structures for dyslexic learners.

Framing Dyslexia within the learning age

In line with Governmental developments surrounding the establishment of a lifelong learning culture, a number of studies have reported a need for basic skills to be re-taught and incorporated into all adult learning programmes. One of these papers in particular, "A Fresh Start" (1999)¹ stresses the need to develop a better adult learning culture. What is evident in this report is the complete lack of initiative concerning adults with Dyslexia of which 10% of the adult population are affected, with 4% exhibiting severe learning difficulties (Jameson 2001). Dyslexia can cause problems with reading, writing, spelling, planning, and organisational skills, which means that dyslexic students may experience problems within education that affect their ability to attain their maximum potential. In addition the emphasis placed on these learning difficulties largely means ignorance regarding some of the more positive effects of dyslexia in that many learners have developed intuitive learning styles and are highly creative. Jameson argues that whilst it is evident that dyslexic learners require assistance with basic skills etc. there is little value in integrating dyslexic learners into general basic skills classes. What is needed is separate classes for dyslexic learners and that whilst it is clear from such papers as "A Fresh Start" (1999) that "the learning age requires new ways of supporting learners", this is only of use if dyslexic learners play a part in the development of their own support networks (Jameson 2001).

1 Commonly known as the Moser Report.

What is also apparent from the literature is that the number of dyslexic students within higher education is increasing and hence, colleges and universities are expected to ensure that the needs of dyslexic students are met. Singleton (1999) stated that nationally, it is estimated that 57% of dyslexic students enter HE with their dyslexia already diagnosed. In the 1970's the University of Wales set up a dyslexic unit with the aim of assessing students for their level of dyslexia and offering support and tutoring where needed. The unit carried out a study in the 1990's, due to an increase in the number of students declaring themselves dyslexic. The study showed an increase of 200 students in 8 years being assessed with dyslexia. The study stated that:

“On the whole our students with dyslexia seem predominantly to have mild dyslexia, although we do have a few more with severe dyslexia. Perhaps some of those with more serious dyslexia (mainly male) do not reach higher education not having had sufficient support when in school, although this is merely speculative.” (Rook 1999, p19)

Students who have had problems during school develop techniques to deal with the problems they face; but learning and studying at University or college is a new challenge to any student, and additionally so for a dyslexic student. Reading and remembering what has been read is a common problem as is the misreading of unfamiliar words. Other problems faced when learning include note taking and difficulties with short-term attention span. Earle (2000) highlighted the following:

“ It is now recognised that not only should people with dyslexia have access to HE; but that owing to the very nature of HE, they may also need additional support to enable them to fully participate and benefit from their educational experience.”(Earle 2000, p48).

Further, Nielsen (2000) highlights specific problems faced by dyslexic learners:

“Dyslexic people experience difficulty processing language both written and oral. Besides having problems in mastering reading, writing and spelling, many confuse directions, sequences, verbal labels and letters, words and numbers that look or sound similar”. (Nielsen 2001, p6).

What these findings illustrate is that in this new learning age, where students enter into HE through a number of contrasting routes with non-traditional educational backgrounds, there is a strong need for universities to develop specific learning and teaching models for adult dyslexic learners. There is evidence that in a number of universities these are already in place, most universities have policies concerned with the needs of those with disabilities, a category in which dyslexic learners fall. However, these policies do not necessarily have practical usage for dyslexic learners in everyday study environments such as learning centres. What becomes apparent is that learning resources need their own guidelines and models for dyslexic learners that incorporate the opinions of dyslexic learners in their development. This is one of the main criteria for our study.

From this it is clear that Learning Resources need to incorporate the views of their users into the development of specific strategies concerned with dyslexia. In addition though there is still a need for this study to know more about the problems faced by dyslexics and the effects these may have on their ability to learn. One of the most striking problems is that of self-confidence and esteem, a common problem for learners who lack basic skills, not just students with dyslexia (Freedom to Learn, 2000) and the best way to remedy such problems is through detailed study support that is specific to the learners needs. “(For) if achievement is to be raised, basic skills need to be contextualised, as dyslexic people, more than others, generally learn more effectively in areas in which they have a high level of interest” (Freedom to Learn, P18).

The role of Learning Resources

Following on from this, what role should Learning Resources take in the support of dyslexic learners in HE? Whilst it is clear that the University has procedures in place for the identification and assessment needs of dyslexic learners, the Department of Learning Resources can play an active role in assisting dyslexic learners with their management of learning materials.

These areas of support will be assessed within this report through the workshops with dyslexic students. However, what useful indicators are suggested by the literature? Nielsen (2000) has a number of suggestions for improving the support provisions for dyslexic learners including pictograms for sign posting, attractive study areas particularly for weak readers, the support of a dyslexia librarian and in terms of IT, student support should be in the form of computers for dyslexic learners with synthetic speech and text magnification. In addition it is apparent that printed materials on coloured paper in reader friendly fonts can also assist students around the learning centre. Through the workshops this report hopes to assess the level to which these structures are in place. It is through these workshops that a greater appreciation of problems can be attained and hence redressed.

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Appendix 2

Current practice in other UK HE institutions

The University of York has a dyslexic unit which offers support to students and helps them develop a learning style. The Library offers help and support on computers, workshops to help students improve their information retrieval skills and extended loans for books.

The University of Glasgow has a Dyslexic Unit which offers the same support as York. The Library has a designated member of staff who offers support to students from searching the library catalogue, to fetching books from shelves. They also offer the extended loans for books.

The University of Dundee has a Dyslexic Unit that offers a range of facilities which include a quiet study room, a computer room, a kitchen and access to photocopying. The library offers a similar service to Glasgow.

Birmingham University also has a Dyslexic Unit, offering similar services as York and Glasgow. The Library offers the extended loan periods and help with searching the catalogue. Staff will also fetch books from the shelves for students who have directional problems.

Nottingham University Library likes to promote itself as a Dyslexic Friendly Library. They offer individual library inductions, help searching the catalogue, finding books on the shelves, extended loan periods including short loan items, designated silent study areas and help with research.

University Websites

Birmingham University – <http://www.is.bham.ac.uk>

University of Dundee – <http://www.dundee.ac.uk>

University of Glasgow – <http://www.gla.ac.uk>

University of Nottingham – <http://www.nottingham.ac.uk>

University of York – <http://www-users.cs.york.ac.uk>

Other useful websites

British Dyslexia Association – <http://www.bda-dyslexia.org.uk>

Dyslexia Institute – <http://www.dyslexia-inst.org.uk>

Dyslexic.Org – <http://www.dyslexic.org/home.htm>

Freedom to Learn – <http://www.lifelonglearning.co.uk/freedomtolearn/front.htm>