Students with dyslexia at university
Study patterns, challenges and potential solutions

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Introduction

Approx. **1 in 15** people worldwide are dyslexic[1]

BUT less than **1 in 200** university students report a reading difficulty[1-3]

AND many drop out before they complete their degrees[4,5]

Aims

To explore learning experiences of university students with dyslexia:

| Describe their study patterns | Determine the challenges they face | Uncover potential solutions |

Method

- n = 12 students with dyslexia, n = 21 peers
- Dyslexia defined as: prior diagnosis and/or ≥ 1 SD below the mean on the Castles and Coltheart 2 Adult (CC2A) reading test
- Qualitative and quantitative data collection
- Face-to-face semi-structured interviews on university learning experiences
- Transcripts coded and thematically analysed.

Results

Study patterns

Frequent engagement
Routinely viewing lectures up to 3 times
x3

Intensive engagement
Using numerous strategies

Selective reading
Strategic, Mostly printed

Value face-to-face interaction
On campus lectures, tutorials and discussions

Find videos
YouTube, TED TALKS

Less benefit from recorded lectures
compared to non-dyslexic peers

Challenges

Study skills
Difficulty with note-taking, reading and organisation

Teaching
Dull speaking style, Poor explanations, Cluttered slides

Course materials
Readings: too many, online, cost and time to print,
Videos: not enough,
Slides: too much text

Rigid assessments
High stakes, Not real-life skills

Physical spaces
Large, noisy, Brightly lit

Technical features
Poor sound quality, Unreliable internet

Staff responses
Variable feedback and assistance, Occasional teasing

Disability services
Poor suitability, Long timeframes

Potential solutions

Staff training
Speaking skills, Tutorial facilitation, Slide design

Study skills
Teach and assess explicitly, Add public speaking, More time and day options

Course materials
Readings: fewer, shorter, cheap printed course readers
Videos: more
Slides: more images, less text

Assessment choices
More options, Smaller tasks

Physical spaces
Improve acoustics and lighting, Create group study spaces for talking, whiteboards, laptop charging AND eating

Disability services
Study groups for students with dyslexia, Dyslexia-specific services, Shorter waiting times

Recorded lectures
Better audio quality, Add video of lecturer

Summary

The following key patterns emerged regarding students with dyslexia:

| Work much harder | Experience multiple challenges | Realistic solutions available |

Conclusions

Universities can make reasonable changes to improve experiences and success:

University systems
Assessments, study spaces, Course materials, Recorded lecture format, Technical investment

Support services
Staff and student training, Dyslexia-specific services including study groups, Timely delivery

References & images

References: [1] Katusic et al. (2001) Mayo Clin Proc 76: 1081-92, [2] Richardson & Wydell (2003), Read Writ 16: 475-503, [3] Stampoltzis & Polychronopoulou (2008), J Res Special Ed Needs 8: 37-46, [4] Wolf (2001) Annals New York Acad Sci, [5] Madriaga (2007) Disability & Society 22: 399-412.
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More details...

Results in greater depth

Study patterns

1. Intensive engagement
Students with dyslexia used numerous strategies performing their learning tasks.
"I re-write all my lecture notes using pictures and diagrams"

2. Frequent engagement
For example, some students with dyslexia viewed each lecture up to three times as part of their regular note-taking routines.

3. Selective reading
Tended to read very strategically, and preferred printed readings such as textbooks and course readers.
"I only read when absolutely necessary."
"I like printed readers because they don't hurt my eyes and they're organised into weeks so I know what I've got to read and when"

4. Find their own resources
Nearly half (5 of 12) of the students with dyslexia found online videos to supplement or replace course readings. Only 1 of 21 non-dyslexic peers found resources online.
"Mostly I just try to find something on the topic on YouTube. ... It makes more sense to me, hearing someone being interviewed, as opposed to reading about it."

5. Value face-to-face interaction
Most expressed strong preference for face-to-face learning interactions including on-campus lectures and tutorials.
"In a subject where there was good face-to-face interaction I got a high distinction, but my average marks in the others were passes and low credits."

6. Less benefit from recorded lectures
Strong trend towards lower ratings of enjoyment and learning benefit by dyslexic students compared to non-dyslexic peers.

Challenges

1. Study skills
Students with dyslexia had particular difficulty with note-taking, reading, planning and organisation and spent longer on these tasks

2. Teaching
Some lecturers or tutors have a dull or stilted speaking style, provide poor explanations and/or use cluttered, text-heavy slides

3. Course materials
- Readings were often unnecessarily long, complex, and only minimally relevant
- Online readings were difficult to read and expensive to print
- Not enough videos, diagrams, graphs

4. Physical spaces
Students with dyslexia tended to struggle in large, noisy spaces with bright lighting or glare

5. Technical features
- Poor sound quality in recorded lectures
- Poor internet quality and speed on campus
- Learning technologies can be difficult to use

6. Staff responses
- Assistance and feedback varied greatly
- One student reported staff teasing

7. Disability services
- Only 1 out of the 12 students with dyslexia received note-taking and tutoring help and only 3 had special exam conditions
- Services seemed poorly suited to their needs
- Long delays were also reported

8. University systems and processes
- Examination design is rigid and artificial
- High assessment weightings stifle creativity and increase stress
- Systems for staff training, quality assurance and complaint handling were inadequate

Potential solutions

1. Study skills
- Teach study skills as a compulsory core subject at the start of every degree
- Include explicit instruction on public speaking and use of learning technologies
- Offer evening and weekend options

2. Staff training
Provide specific training in speaking skills, tutorial group facilitation and slide design

3. Course materials
- Readings should be fewer, shorter, clearly written, relevant and succinct
- Affordable print-on-demand course readers
- Lecture slides with more pictures, diagrams and graphs, made available before lectures

4. Physical spaces
- Improve acoustics and lighting
- Provide more group study spaces where students can talk, draw on whiteboards, charge laptops AND eat all in one place

5. Technical features
Invest in internet quality and technical support

6. Recorded lectures
- Better quality audio recording
- Add a video of the lecturer talking

7. Disability services
- The disability service has already started study groups for students with dyslexia
- Need new support options – dyslexia is not the same as blindness, low vision or illiteracy
- Shorter waiting times for services

8. University systems and processes
- Greater range of assessment options
- More frequent, smaller assessment tasks
- Improve staff training, quality assurance and complaint handling systems

Other resources

Available at www.FreeDyslexiaResources.WordPress.com