

Loughborough University Teaching Innovation Awards

Name(s)

Karisa Krcmar

School(s)/Department(s)

Study Support Service (CDS)

Email

k.krcmar@lboro.ac.uk

Phone number

01509 222670

Project title

An exploration of the benefits of active learning strategies for Loughborough University students with neurodiversity

N.B. Expand the text boxes as necessary. It is perfectly acceptable to use bullet pointed lists of outcomes, issues, activities, etc. if preferred

Abstract (200-250 words)

The project aimed to evaluate whether standing and/or light movement has a positive effect on learning and information processing. Based on a practitioner-based research model, we invited students to stand and move during their 1:1 specialist study support sessions. Students were then asked to complete a qualitative interview schedule with their tutor. Students also took part in more qualitative testing when they used a standing treadmill for reading, memory and sequencing tests. The results from the quantitative testing were inconclusive but qualitative responses were very positive about the benefits of using a standing desk whilst working on academic tasks. Discussion on learning styles with students aided their metacognition. Good metacognitive skills influence independent learning and self-esteem. Most students involved chose to continue to use the standing desk when coming for further sessions.

Issue(s) addressed by project

The project addressed the issue of the different ways people learn.

Aims

The aim of the project was to evaluate whether standing or light movement (versus sedentary behaviour) has a positive effect on learning and processing information.

Specific objectives

Measure the difference between reading efficiency when sitting vs. slow movement

Qualitatively record students' experiences of standing at a standing-desk for their 1:1 specialist study support session

Activities/methodology

Using standardised tests that have been used for assessing for SpLDs, but which are no longer used (in order to ensure students had not seen these before or would not have negative influence in a future testing the student may want to do).

Tests used: Vernon-Warden Reading Test (1996); Digit Memory Test (2003); Spadafore Diagnostic Reading Test (1983)

These tests were administered as the student was using the treadmill desk and at a different time (with different data involved in the tests, so there was no direct repetition in order to avoid 'learned behaviour') when the student was sitting. Results from these were compared.

Further, students used the standing desk during their weekly hour-long 1:1 specialist study support sessions and after the trial time completed a qualitative interview with the researcher/specialist tutor.

Use of award money (outline breakdown)

Purchase of 2 standing desks

Project outcomes/findings

The quantitative results from treadmill desk were inconclusive. Some students found it difficult to walk and read. This may be because: when I watch people walk naturally they vary their speed and position within the line of walking; on a treadmill the pace of walking (whilst very slow and set by the student) does not vary; the treadmill also does not allow of 'meandering'. Future research may address this question. Another reason for these inconclusive results may be that the nature of specific learning difference can affect an individual's sense of balance. Students walking on a treadmill may have put more effort into maintaining their balance (this would be an unconscious adaptation). Future research may address this question.

The qualitative results more conclusive and positive. One student on one occasion chose not to stand during her session – this was because she did not feel well on that particular day. Comments about standing included:

"I always stand to do my art work – I never thought about essays and stuff. This is great. It really helps." (1st year student)

"After standing and moving around here, I went for a walk yesterday – I took my Dictaphone with me. I've never thought of doing that before but after a bit my thoughts really did begin to flow. Why? How did it help? Why has nobody told me about this before? All students need to know about this." (PhD student – writing up)

"I was on the phone yesterday sorting out some insurance and suddenly realised that I was pacing in my room as I was talking." (2nd year student)

"I've always walked to think things out – I just never thought I could do it for academic work." (-mature- 2nd year PhD student)

"It's easier standing up – I'm a fidget and it's easier to fidget when you're standing. I need to fidget to think." (final year student)

"I've been doing this sort of thing subconsciously. Because I know I struggle with some stuff, I have my coping mechanisms ... one is to stand and move." (final year student)

"I didn't think you're allowed to stand and move – like, at school they tell you sit still and shut up. That was always difficult! Wish I could move around in lectures – it would help me to concentrate ... though teachers think that you're messing." (1st year student)

Not all students were so positive:

"I'm indifferent – don't mind standing ... don't mind sitting." (2nd year student)

Project outputs/deliverables

The standing desk is now being trialled this year by another colleague in the Study Support Service with her student.

Impact on teaching and learning (for your students, your School and including links to University strategy)

If the further study we do with the tests give equally positive results, I will be putting a bid in for next year's budget to get better quality desks available in all study support rooms to enable all students who come for study support to be able to make the choice to sit or stand.

I am to talk with library team and FM colleagues who provide open study spaces to see what facilities they can put in place for student.

Dissemination plans including location of developed resources for Loughborough colleagues to access (a link to these can be created for you from the CAP website if you wish)

Papers planned for: (i) Journal of Neurodiversity in Higher Education (ii) Patoss bulletin

Conference workshop planned for submission for : (i) aDShe conference June 2018 (ii) next IDA conference (2019)

Please submit the completed form to:

Deena Ingham, *Teaching Innovation Awards Panel*
Centre for Academic Practice

d.ingham@lboro.ac.uk