**Application for ACT Funding for Summer Studentship Education Research Project**

***The impact of Specific Learning Differences on student performance in RVC examinations: Is it just a question of time?***

 ‘if we wish to discover the truth about an educational system, we must first look to its assessment procedures’ (Rowntree, 1987, p.1).

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**Introduction**

Approximately 20% of undergraduate students at the RVC identify as having a one or more of the following Specific Learning Differences (SpLD)

·      dyslexia

·      dyspraxia

·      attention deficit disorder (ADD) & attention deficit hyperactivity disorder (ADHD)

·      dyscalculia and

·      dysgraphia

·      autism

Others may have dyscalculia or dysgraphia or a combination of any of the above differences.

These differences affect the way students learn and evidence their learning. Difficulties often run in families and are not connected to cognitive intelligence. They can have significant impacts on education, learning and acquisition of literacy skills (British Dyslexia Association) and impact socially on students (Michail 2010)

Whilst these differences may be diagnosed as discrete deficiencies, there are several common characteristics that impact learning; students with one or more of the above diagnoses can have difficulties with:

* Poor working memory
* Organisation
* Slower processing speeds
* Writing
* Reading
* Interpreting idioms
* Time management
* Issues with sensory processing leading to problems with:
  + Screening out extraneous sensory stimuli (eg visual, olfactory and kinaesthetic)
  + Managing busy environments due this sensory overload.

Universities employ different assessment formats across the undergraduate and postgraduate curriculum to assess cognitive attainment and competencies. Examinations must be both reliable and valid (Schuwirth and van der Vleuten 2014) and designed such that students with SpLDs are not disadvantaged by the presentation of the material. Given that the SpLDs are not related to cognitive ability, students should have the opportunity to achieve their potential. The examination period can be stressful due to the workload, ability to manage revision and the format of the exams. Students with SpLDs can find it difficult to interpret written and verbal questions and this is frequently combined with slower processing speeds, poor time management and organisation of their thoughts to write coherently under time pressure (Miles and Varma 1995). We have found students sometimes adopt maladaptive coping strategies (Cardwell et al. 2013), freeze altogether (Miller 2015) or fall short of their own expectations.

Certain allowances are made for students with SpLD in written exams such as extra time, use of computers and readers, and individual rooms in certain situations. Listening to student voices (MICHAIL 2010) has shown that although extra time is helpful, it is not the only issue. Some students struggle without breaks and others with understanding the questions. In our experience, students report increased stress in oral exams if there is limited time allowed for students to process questions, structure their thoughts, and come up with a verbal response.

We would like to explore this issue further in terms of the impact of SpLDs on student performance in professional examinations in higher education as typified by the RVC. We would like to understand how students with SpLDs perceive the challenges of examinations. Are there any particular themes across the board? Do specific exam formats pose more of a challenge than others? Do students feel capable of evidencing their learning in all the assessment, or do they find one type more accessible? Do they think we are being fair and do they trust and feel safe in the examinations system?

It is increasingly accepted that assessment for students with SpLDs should not be a ‘bolt-on’ to the original exam (Miller et al. 2015), but exams should be designed to be inclusive to all. Finding out about the areas of challenge should help us modify our existing examinations to ensure optimal performance for all students. This should help all students as there is no disadvantage to students without SpLDs when questions are more accessible and formats are less confusing (Miller et al. 2015). Subject complexity can be maintained to provide suitably challenging assessments, whilst accessibility is improved.

Through supporting an ACT funded RVC research student, we aim to investigate the student experience of assessments.

**Objectives**

“*Listening to the students’ voices is the best source of information for non-disabled people to understand what they are going through in an effort to make provisions for these students.*” (MICHAIL 2010).

This student-driven piece of research is intended to:

1)    Explore students’ experience of assessment at the RVC, specifically

a.    Discover the different challenges in the different exam formats.

b.    Explore the impact of these challenges on students’ perception of their performance, their confidence and their grades

**Research Methods**

We intend to create a survey to present to all undergraduate and postgraduate students. The survey will be comprised of two sections:

1. Descriptive self-assessment
2. Ranking exam formats for accessibility

In the self-assessment section, students will be asked to rate their level of challenge in areas related to SpLDs as described earlier e.g., ‘I am able to manage my time in exams’. The questions will be lickert scale, asking students to rate each of the statements from Strongly Agree to Strongly Disagree.

Students will also be asked if they have a formal diagnosis of a SpLD.

In the second section, students will be asked to think back to their previous examination and answer questions relating to their experience in different assessment types eg MCQs, EMQs, short answer, essays etc.

A final question will ask if they feel their mark in their previous examination reflected their ability in the subject.

**Analysis**

We will analyse the data with a multivariate regression analysis to see if there is a correlation between the difficulties students identify and their ability to negotiate the different examination formats and ultimately if they felt their mark reflected their ability.

**Estimated costs**

Student stipend: 8 weeks @ £200/week:                               £1600

Incentives for questionnaire participation:                             £ 100

Incentives/costs of running observed sessions in DR/CSC:   £ 300

**References**

British Dyslexia Association What are Specific Learning Difficulties? http://www.bdadyslexia.org.uk/educator/what-are-specific-learning-difficulties. Accessed 20 Dec 2016

Cardwell JM, Lewis EG, Smith KC, et al. (2013) A cross-sectional study of mental health in UK veterinary undergraduates. Vet Rec 173:266. doi: 10.1136/vr.101390

MICHAIL K (2010) DYSLEXIA: THE EXPERIENCES OF UNIVERSITY STUDENTS WITH DYSLEXIA. The University of Birmingham

Miles TR, Varma VP (1995) Dyslexia and Stress. Wiley

Miller CDKJ (2015) Replacing stressful challenges with positive coping strategies: a resilience program for clinical placement learning. Advances in Health Sciences Education 20:1303–1324. doi: 10.1007/s10459-015-9603-3

Miller W, Collings J, Kneale P (2015) Inclusive assessment design and delivery in the disciplines. http://www1.plymouth.ac.uk/research/pedrio/%0APages/PedRIO-Occasional-Papers.aspx. Accessed 27 Jan 2017