For tutors: Dyscalculia

Introduction

Dyscalculia is lifelong. It can impact on the understanding of number in a range of settings, both within education and wider life. Students with Dyscalculia may rely on procedural knowledge, with little or no conceptual understanding. They will rely on other strengths such as memory and problem solving to access mathematics.

The dyscalculic student may have some of the following **strengths:**

- Literacy skills
- Good verbal skills
- Procedural knowledge
- Resilience
- Problem solving in real world situations

Possible Impacts on Mathematics (suggested strategies in brackets)

- Foundational and arithmetical skills (A, B, C, D, G, H, I, J)
- Insecure counting (A, B, C, G, H, I)
- Poor estimation skills (A, B, C, G)
- Recognising that the answer achieved is realistic (A, B, C, G, K)
- Manipulating data (A, B, C, D, F, I, J)
- Conceptual understanding (A, B, G)
- Selecting correct procedures for problems in a range of contexts (D, E, F, J, K)
- Working with abstract concepts (A, B, F, G)
- Low self-efficacy and maths anxiety (See Maths Anxiety Leaflet)

Strategies to Help

A. Allow time for the student to think
B. Go slow
C. Use a calculator where possible to remove the requirement for mental arithmetic
D. Use of colour for different aspects of a problem, e.g., different operations
E. Use bullet points to break up the text
F. Make a list or glossary of technical words, symbols or notation
G. Use concrete materials and diagrams, where appropriate
H. Work with place value columns
I. Use squared paper
J. Encourage the student to create step by step procedures
K. Encourage the student to check for mistakes

Further information

Further assistance on time management, organisational and other study skills can be accessed from your Disability Department or relevant Student Support.

Further general information is available from Cowen, M. (2010). Dyslexia, Dyspraxia and Dyscalculia for https://www.nottingham.ac.uk/studentservices/documents/rcn---dyslexiadyspraxiadyscalculia---toolkit-for-nursing-staff.pdf