

Module Narrative

1.	Module title:	Psychometric Assessment of Maths-related Difficulties
2.	Module code:	DAPP22-03
3	Credits:	30
4	FHEQ level:	7
5.	Start semester:	Real Group does not have a semester-based academic year. Modules have multiple start dates per year.
6.	Module leader:	Gill Cochrane
7.	Accredited by:	
8.	Module restrictions:	
	Pre-requisite requirements	DAPP22-01
	Programme restrictions	None
	Level restrictions	None
	Other restrictions or requirements	• Be already studying on, or have previously completed, DAPP22-02. • Access to appropriate psychometric tests. A list of current tests required for the module can be found on the module's page on the Dyslexia Action website. • Access to appropriate learners to conduct psychometric tests on. • Access to an appropriate setting to conduct psychometric tests in.

9. Module aims

To familiarise practitioners with an informal (standardised and non-standardised) method of appraising maths-related difficulties. To explore the complex and extensive skill-set needed to be an effective specialist maths teacher and to instil an understanding of the importance of facilitating mathematical understanding in learners.

10. Learning outcomes**Knowledge and Skills**

On successful completion of this module, the student will be able to:

1. Accurately process and insightfully interpret statistical information relevant to the context.
2. Conduct an assessment of cognitive processing associated with mathematical development using standardised and non-standardised methods (where appropriate) in a manner that demonstrates critical understanding of the psychometric assessment process.

3. Construct an assessment report for a learner that effectively appraises the cognitive processing processes associated with maths-related difficulties.

11. Syllabus

- Statistical knowledge associated with educational assessment.
- Assessment administration and scoring skills.
- Familiarisation with standardised tests that appraise general cognitive processing memory and learning.
- Familiarisation with standardised tests that appraise mathematical performance
- Critical examination of available quantifiers of mathematical skill/understanding (standardised methods).
- Linking examinees' performance to recommendations/strategies to support understanding and skill development in learners.
- Working within different assessment report formats.
- Using reflective models and structured self-evaluation materials to enhance professional performance.
- Evaluating professional skills, responsibilities.
- AI literacy and ethics for specialist assessors.

12. Learning and teaching

12a. Learning and teaching strategy

Learning and teaching will be via distance education using Real Group's online Virtual Learning Environment, Campus Online.

Students access the study topics, including the learning activity instructions and supporting content through Campus Online.

Campus Online is an integrated environment that:

- Guides the student through the module, giving guidance about the completion of the module's series of learning experiences. These experiences are designed to cover the Learning Outcomes so that the student can pass their assessments.
- Allows students to manage and track their progress through the activities and assessments.
- Allows the flexibility for students to work at their own pace, around their individual schedule and to revisit all materials at any point in their studies.
- Enables students to submit their evidence and assignments, and receive feedback from their tutors.

These are supported by activities that promote review and reflection and provide access to relevant theory, policy, case study and exercises. There is access to supporting content including:

4. Directed reading of selected papers, book chapters, specialist online materials.
5. Use of case study examples, videos and other learning materials.
6. Practical activities and reflection on own practice, structured through 'learning log' online entries.

Campus Online also supports a collaborative learning environment with:

- Fellow students via online discussions to problem-solve issues raised by delegates from real-life settings, to critically analyse ideas and research, and respond to practical case studies.
- Interaction with tutors including receiving formative feedback, and more general support (for learning, technical questions and course administration) via private messaging and forums.
- Both students and tutors via webinars (both live and recorded) by tutors and visiting professionals and academics.

12b. Delivery method

Distance Education

12c. Learning and teaching hours¹

The number of timetabled hours for learning and teaching activity, including on-campus and online. For Higher Degree and Apprenticeship programmes, this is University-led Off the Job hours.	0
The number of hours a student should complete independent study. For Higher Degree and Apprenticeship programmes, this is Apprentice-led Off the Job hours.	294
The number of hours on placement (including placement, work-based learning or year abroad). For Higher Degree and Apprenticeship programmes, this is Employer-led Off the Job hours.	6

13. Assessment

13a. Assessment scheme

¹ Completing this is a regulatory requirement, used as part of our submission to Discover Uni (previously UniStats).

Formative:

(for example, could include but not be limited to):

- Quantitative and Qualitative Dimensions of Psychometric Assessment:
 - Numerical questions (formulae, score conversion and transformations).
 - Short answer conceptual questions.
- Report-writing Task: Generate an assessment report from a case study dataset that includes background details and qualitative data.
- Observed Administration: Self-reflection on assessment administration, scoring and score transformation in order to support future professional development of administration practice using a digital recording of practice submitted for tutor review.
- Report written using data generated from the formative observed administration process and submitted for formative feedback.

Summative:

Assessment Administration: Conduct an assessment of the cognitive processing associated with mathematical development and critically reflect on the process using a structured self-evaluation checklist and a recording of the administration.

Weighting	Specification e.g. word count, duration, page numbers	LO mapped to	Anonymously marked	Submission point	Ethics approval required
20	900-1100 words	2	No	End-module	Yes

Assessment Report: Construct a professional assessment report for an examinee that displays knowledge of the cognitive processing differences associated with maths-related difficulties. Reflect upon own practice to enhance future professional development

Weighting	Specification e.g. word count, duration, page numbers	LO mapped to	Anonymously marked	Submission point	Ethics approval required
80	4000 words	3	No	End-module	Yes

13b. Module pass mark/progression requirement:

In order to pass the module, the student will be required to achieve:

- an overall aggregate of 50% (grade 16) with a minimum of 50% (grade 16) in each assessment component.

13c. Overview of assessment²

COURSEWORK		100%
EXAM ³		0%
PRACTICAL		0%
If exam selected	What % of the exam is seen/unseen:	Seen.....%
		Unseen%

² This information will be used as part of our submission to Discover Uni (previously Unistats). See LQEH Section 16b for definitions of assessment methods.

³ Where exams are required by a PSRB for in-house, franchise and joint programmes.

Will this require separate timetabling arrangements?	Yes ☐ No ☐
Length of exam	hours

14. Learning materials

Essential

- All essential reading materials that are required for the course are available to students, embedded within Campus Online. This may be as a journal article or extract from a key text, etc.

Essential Assessment Equipment: This is a professional practice module; students need access to the tools used by qualified assessors of mathematical performance. These are provided with restricted access/right of use whilst students are in training. Examples of such materials include **elements from** test batteries such as:

- *Wechsler Individual Achievement Test: Third UK edition* (2018) (WIAT-III-UK) London: Pearson Assessment
- Reynolds, C.R. & Bigler, E.D. (2007). *Test of Memory and Learning 2 (TOMAL 2)*. Pro-Ed.
- Feifer, S.G. & Kovach Clark, H. (2016). *The Feifer Assessment of Mathematics (FAM)*. Psychological Assessment Resources (PAR)

Recommended

- Boyle, J. and Fisher, S. (2007) *Educational Testing: A Competence-Based Approach*. BPS Blackwell: Oxford
- Kroesbergen, E., Van de Weijer-Bergsma, E., Van Luit, J. (2015) Verbal and visuospatial working memory and mathematical ability in different domains throughout primary school. *Mem Cogn* 43:367–378 DOI 10.3758/s13421-014-0480-4.
- Attout L., Majerus S. (2018) Serial order working memory and numerical ordinal processing share common processes and predict arithmetic abilities. *British Journal of Developmental Psychology* 36:2 DOI: 10.1111/bjdp.12211.

15. Timetabling information (HENDON only)

	Required	Hours per week	Group size
Large class (two groups merged)	Yes/No		
Seminar (SEM)	Yes/No		
Laboratory (LAB)	Yes/No		
Workshop (WRK)	Yes/No		
Online session (OL)	Yes/No		
Other (please specify)	Yes/No		

16. Module run (in-house, franchised and joint only)

Academic year	Semester	Start date	End date	Max student numbers	Campus	Franchise partner
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17. Programme(s) using this module (where a new module is being added to a programme outside of a validation and review event, please also submit a Programme Change Form and tracked change Programme specification):

Programme code(s)	Programme title(s)	Core/Elective
600X178	MEd Professional Practice in Maths-Related Difficulties (DL)	Core
600X176	PGDip Specialist Assessment and Teaching for Maths-Related Difficulties(DL)	Core

18. Validated collaborative partner (if applicable):

Real Group Ltd., trading as Dyslexia Action Training