



Job title	KTP Research Associate in Mathematics Learning	Job family and level	Off-scale – KTP Associate Salary (£35,000-£48,000 per annum)
School/ Department	Psychology	Location	Maths Circle Limited, Bedford Heights, Brickhill Drive, Bedford, Bedfordshire. MK41 7PH

Purpose of role

Based at Maths Circle in Bedford, you will work in partnership with leading academics from the University of Nottingham's [Human Development and Learning Research Group](#) and Loughborough University's [Centre for Mathematical Cognition](#) as part of a Knowledge Transfer Partnership (KTP).

This is an unusually applied research role: findings from the project will feed directly into the design of Maths Circle's products, allowing you to see research translated into real changes for learners and teachers during the life of the KTP. The project offers a rare combination of academic rigour, access to large-scale real-world learner data, direct contact with schools, and the opportunity to influence live educational products at scale.

In this role you will apply your expertise in data collection and analysis to understand mathematics learning and the range of psychological factors, including mathematics anxiety, attitudes and self-concept, that influence its success.

This will be achieved by:

1. Collecting data in primary schools and carrying out focus groups
2. Embedding psychological assessment tools into Maths Circle learning platforms
3. Mapping psychological profiles to usage patterns and learning outcomes
4. Informing new inclusive personalisation features and game modes
5. Generating teacher-facing insights that help schools support learners more effectively

This is a career-development opportunity to deliver a high-profile, commercially strategic project that will transform Maths Circle's products, enabling them to address inequalities in learning platform usage patterns and learning outcomes and ensure that Maths Circle products work effectively for all learners.

	Main responsibilities (Primary accountabilities and responsibilities expected to fulfil the role)	% time spent in this project
1	Collect data with children in primary schools and carry out focus groups with parents and teachers to inform new psychological assessment tools.	20%

2	Work with the Maths Circle Development, Design and Enrichment teams to embed psychological assessment tools into Maths Circle learning platforms and inform new personalisation features, game modes and teacher support tools.	20%
3	Analyse large-scale data sets of usage patterns and learning outcomes from the Maths Circle platforms and map these to profiles from the psychological assessment tools, before and after the implementation of new features.	20%
4	Write reports, presentations, training materials and academic papers.	25%
5	Participate in KTP induction, training and development. Organise and minute monthly project meetings and maintain and update project documentation.	15%

Person specification

	Essential	Desirable
Skills and attributes	▪ Ability to communicate in English clearly and effectively in written and verbal formats appropriate for project delivery. ▪ Proven capacity to work independently to prioritise and complete work within project timelines. ▪ Problem-solving skills with the ability to consider alternative solutions and adapt to changing requirements. ▪ Willingness to learn independently and apply new knowledge and skills. ▪ Ability to work within a project plan, monitor and report progress and manage deadlines. ▪ Ability to work with a team of internal and external stakeholders within a fast-moving commercial environment.	▪ Prior industrial experience or commercial awareness. ▪ Passion for improving educational capabilities amongst young people
Knowledge and experience	▪ Knowledge and experience of a range of research methods and designs. ▪ Excellent advanced data analysis skills of large data sets. ▪ Experience carrying out research with child participants. ▪ Experience working in or with primary schools and understanding of the education sector (DBS clearance required).	▪ Experience using cutting-edge data analysis and visualisation tools (e.g. Python, SQL, Grafana, Metabase). ▪ Experience working in collaborative, multi-disciplinary environments. ▪ Experience in technical writing, including reports or publications. ▪ Experience conducting research studies in primary schools.
Qualifications, certification and training (relevant to role)	▪ A PhD (or close to completion) in Cognitive Development, Mathematical Cognition, Mathematics Education or a closely related discipline.	

Other	▪ Willingness to undertake appropriate further training and adopt new procedures as required. ▪ Willingness to engage with commercial activities related to the dissemination and demonstration of project outcomes. ▪ Willingness to travel to the University of Nottingham, Loughborough, and any other locations as reasonably required to carry out KTP work.	
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Expectations and behaviours

The University has developed a clear set of core expectations and behaviours that our people should be demonstrating in their work, and as ambassadors of the University's strategy, vision and values. The following are essential to the role:

Valuing people

Is friendly, engaging and receptive, putting others at ease. Actively listens to others and goes out of way to ensure people feel valued, developed and supported.

Taking ownership

Is clear on what needs to be done encouraging others to take ownership. Takes action when required, being mindful of important aspects such as Health & Safety, Equality, Diversity & Inclusion, and other considerations.

Forward thinking

Drives the development, sharing and implementation of new ideas and improvements to support strategic objectives. Engages others in the improvement process.

Professional pride

Is professional in approach and style, setting an example to others; strives to demonstrate excellence through development of self, others and effective working practices.

Always inclusive

Builds effective working relationships, recognising and including the contribution of others; promotes inclusion and inclusive practices within own work area.

Key relationships with others

