The Amilies

Technical University of Munich (TUM) is one of Europe's leading research universities. Since its founding in 1868, it has been committed to excellence in research and teaching at the highest international standards.

The Chair of Mathematics Education at **TUM** is looking for a

Research Associate (m/f/x)

(75%, TV-L E13, from 01.10.2025, 3.75 years)

About us

The DFG-funded Collaborative Research Centre **SHARP** 'Simulation-based learning in higher education: Advancing research on process diagnostics and personalised interventions' contributes to theory-building on personalising learning using simulations in higher education. As a joint research context, SHARP focuses on diagnosing and intervening as two highly relevant professional practices in many academic professions.

Project <u>A03</u> investigates how digital simulations can be used effectively to support prospective mathematics and physics teachers' diagnostic skills. The specific question is how prospective teachers apply their theoretical knowledge in such simulations. The open position is located at the Chair of Mathematics Education (Prof. Andreas Obersteiner). The project will be conducted in collaboration with the Chair of Physics Education and the Institute of Medical Education, Technology infrastructure at LMU Munich.

Your tasks and responsibilities

- Your responsibility will be to adapt an existing simulation and to investigate its effectiveness in teacher education.
- Your tasks will include planning and conducting empirical studies on simulation-based learning, analysing the data, and contributing to scientific publications.

Your qualification

 You have an excellent Master's degree or a State Exam in the field of mathematics education or related fields.

- You are interested in interdisciplinary collaboration and working in research teams.
- You have basic knowledge of social science research methods and statistics.
- Initial experience in planning and conducting empirical studies is desirable.
- Experience with digital learning environments, multimodal process analyses and software for evaluating and managing complex data would be an advantage.
- You have very good written and spoken English and German skills.

Benefits

- We offer the opportunity to gain further academic qualifications, particularly to obtain a doctorate in mathematics education.
- Contributing to the Collaborative Research Centre SHARP, you will become part of an interdisciplinary group of experts working in an excellent research environment to significantly advance higher education theory and practice.
- The centre provides all its members with tailored support and supervision measures, including special support for international researchers.
- You will be paid an attractive salary at the payscale 0.75 FTE of TV-L E13. Your contract will be initially limited to 3.75 years.
- Your workplace is centrally located in Munich and easily accessible by public transportation.

We welcome applications from women and other groups that are currently underrepresented in the academic system.

People with disabilities who are equally as qualified as other applicants will receive preferential treatment.

Contact

Your detailed application includes a cover letter, your CV and copies of your transcripts and certificates as a single PDF.

Please send your application by 30.06.2025 to <u>ma@sot.tum.de</u>.

If you have any questions, please contact Prof. Dr. Andreas Obersteiner at <u>andreas.ober-</u> <u>steiner@tum.de</u>.

When applying for a position at TUM, you will be required to submit personal data. Please note our privacy policy in accordance with Art. 13 of the General Data Protection Regulation (GDPR) <u>http://go.tum.de/554159</u> regarding the collection and processing of personal data in connection with your application. By submitting your application, you confirm that you have read and understood TUM's privacy policy.