



## Postdoc position (f/m/x)

### Special Education in Mathematics



Foto: format24

We are one of the largest and oldest universities in Europe and one of the most important employers in our region. Our broad range of subjects, the dynamic development of our main research areas and our central location in Cologne make us attractive for students and researchers from around the world. We offer a wide range of career opportunities in science, technology, and administration.

The Chair of Special Education in Mathematics focuses on topics related to mathematics learning, in particular the diagnosis and support of students' mathematical learning processes. Technologies are used in various ways in the development and research activities in the chair – for example through the development of various apps to promote mathematical learning or through the use of eye tracking, the eye movements recording and artificial intelligence (AI). The advertised position focuses on the diagnosis and support of students' mathematical learning processes using technology (see „Your tasks“).

#### YOUR TASKS

- » Scientific work on the topic of mathematical learning processes of students in inclusive schools, special schools, or preschool education
- » Use of technologies such as eye tracking, motion tracking, artificial intelligence (AI), human-robot interaction
- » Conducting empirical studies with school students on mathematics learning, using technology
- » Publication of scientific results in international journals and presentation at conferences
- » Participation in the implementation, administration and acquisition of third-party funded projects
- » Participation in the centre for learning difficulties and for inclusive learning in mathematics
- » Participation in teaching (4SWS) – co-conception and implementation of seminars, examinations, co-supervision of student theses
- » Participation in the organizational work of the chair

#### YOUR PROFILE

- » A completed university degree in teaching with the subject/learning area of mathematics or a comparable degree is required
- » A very good doctorate in mathematics education or a comparable discipline is required
- » Very good written and spoken German and English skills (at least C1 level in each in both languages)
- » An independent, structured, reliable and committed way of working is required
- » Very good knowledge of qualitative and quantitative research methods as well as an interest in familiarizing yourself with new methods
- » Previous experience with technological topics, especially with the use of technologies to investigate mathematical teaching and learning processes (eye tracking, motion tracking, robotics, AR/VR) is desirable
- » Openness to new topics and the use of technologies as well as the motivation to familiarize yourself with them are required

- » Experience with scientific publications, especially English-language publications in peer-reviewed journals is required
- » Experience in working in third-party funded projects is desirable
- » A completed second state examination or other experience as a teacher in schools is desirable

#### WE OFFER

- » A diverse, inspiring and qualifying job in an innovative, dynamic and international field of activity
- » A diverse working environment with equal opportunities
- » Support in balancing work and family life
- » Extensive advanced training opportunities
- » Occupational health management offers
- » Flexible working time models, full-time positions suitable for job sharing
- » Opportunity to work remotely

The University of Cologne promotes equal opportunities and diversity. Women will be considered preferentially in accordance with the Equal Opportunities Act of North Rhine-Westphalia (Landesgleichstellungsgesetz – LGG NRW). We also expressly welcome applications from all suitable candidates regardless of their gender, nationality, ethnic and social origin, religion, disability, age, sexual orientation and identity.

The position is available from 1 October 2024 on a full-time basis (39,83 hours per week). It is limited for a fixed term until 30 September 2026 with the option to extend for 1 year. If the applicant meets the relevant wage requirements and personal qualifications, the salary will be based on remuneration group I3 TV-L of the pay scale for the German public sector.

Please apply online with proof of the required qualifications without a photo under: <https://jobportal.uni-koeln.de>. The reference number is Wiss2407-15. The application deadline is 11.08.2024.

For further inquiries, please contact Professor Dr Maïke Schindler ([maïke.schindler@uni-koeln.de](mailto:maïke.schindler@uni-koeln.de)).