

#### Job Offer

The Division "Methods and Evaluation/Quality Assurance" (Prof. Dr. Steffi Pohl) in the Department of Education and Psychology at the Free University Berlin plans on filling the position as a

## **Research Assistant** (65%)

(TV-L 13, 65%, temporally restricted till May, 31<sup>st</sup> 2018 with an option for 2 more years in case of grant approval)

in a DFG (German Research Foundation) project, beginning on January 1<sup>st</sup> 2017 or later. The project (principal investigators: Steffi Pohl, Claus Carstensen & Christian Aßmann), which is part of the Priority Programme "Education as a Lifelong Process", deals with developing and testing methods to estimate latent relationships between competencies and explaining variables.

### **Project and Job Description**

Data from large-scale assessments like the National Educational Panel Study allow analyzing explaining variables for competence acquisition. The approved project deals with developing and testing of methods for estimating these relationships. For these estimations, measurement error regarding the testing of competencies, missing values in explaining variables, as well as the complex data structure of such largescale studies need to be taken into account. The project is split into three sub-projects: In the first subproject (supervisor: Christian Aßmann, University of Bamberg), the already developed Bayesian approaches will be enhanced to account for multidimensional Item Response Theory (IRT) models with polytomous response categories. The approaches will then be tested and implemented in form of an Rpackage. In the second sub-project (supervisor: Claus Carstensen, University of Bamberg), the distinct hierarchical structure of the data will be considered. The future job holder of the vacant position will be working in the third sub-project (supervisor: Steffi Pohl). In this sub-project, the longitudinal modeling of competence tests will be integrated into the already developed approaches. The research focus lies on accounting for measurement variance (differential item functioning) as well as longitudinal IRT models (i.e., linking). The tasks will be to further develop the approaches, evaluate them in simulation studies and apply them to empirical data. The results from the three sub-projects will be integrated in one general approach.

### Requirements

The future job occupant should possess a very good Master's degree in psychology, statistics, social sciences, or related disciplines, advanced knowledge and interest in statistical methods, as well as sufficient English language skills. Experience with R or a another statistics software (e.g., SPSS, Stata, SAS), as well as prior knowledge or the willingness to work on IRT related topics and Bayesian statistics is also required.

## We Offer

The involvement in the Priority Programme and the collaboration with the other sub-projects will provide the future job occupant with a diverse scientific environment and plenty of opportunities to acquire additional skills and qualifications. We encourage the research assistant to earn a PhD, guaranteeing adequate supervision. Furthermore, various opportunities exist to gain insight and participate in other

research in the department. The opportunity for lecturing in the area of research methods also exists, although the position comprises no such obligations.

# **Application**

Severely handicapped applicants with equal qualification and aptitude will be given preferential consideration. The Free University Berlin seeks to increase the proportion of women in research and teaching, and particularly encourages female applicants to apply for this position.

Please send your written application including the relevant documents until December, 12<sup>th</sup> 2016 by mail (Free University Berlin, Department of Education and Psychology, Division "Methods and Evaluation/Quality Assurance", Judith Schmidt, Habelschwerdter Allee 45, 14195 Berlin, Germany) as well as by e-Mail (judith.schmidt@fu-berlin.de) to the secretary of the division, Judith Schmidt. If you have any questions regarding the job offer, please contact Prof. Dr. Steffi Pohl (phone: +49 (0)30 838 - 62 926, e-mail: steffi.pohl@fu-berlin.de).