

Modeling and measurement of professional competence of university students in the domain of economics – the ILLEV project



Project Management

Research Question

The project ILLEV is funded by the German Federal Ministry of Education and Research. It focuses on comparing the development of competence among future teachers who study business education as well as students in business administration and economics in the old (Diploma) and new (Bachelor/Master) degree programs. The focus is on modeling and assessing the cognitive dimensions of student (teachers') professional competence, for this project especially domain-specific economic and business administration content knowledge as well as pedagogical content/ didactical knowledge of economics. Research questions are therefore:

1. How do the old and new degree programs influence professional student (teachers') competence?
2. Which individual and structural variables influence the cognitive dimensions and their development significantly?
3. How is the relationship between content and didactical knowledge in economics and business administration?

Theoretical Background

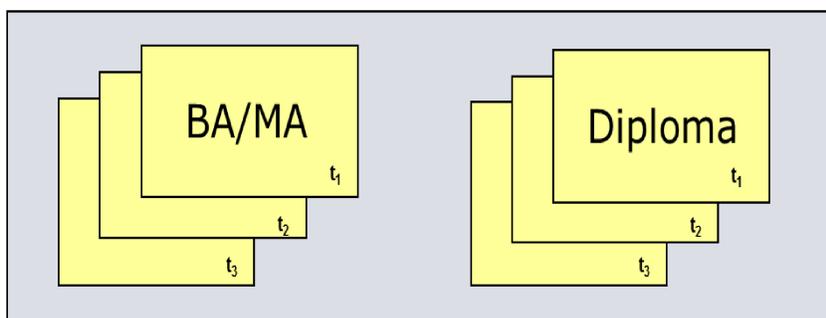
Teachers' professional competence is generally described as a combination of motivational orientations and cognitive components (Weinert 2001). According to a working definition provided by Klieme et al. (2008), "competence" (transiently) may be restricted to cognitive dispositions that are context-specific, learnable and related to practical situations to be mastered. Given this definition, the project focuses on the modeling and assessment of cognitive dimensions of professional competence, whereby other relevant parameters such as dimensions of intelligence, motivation and beliefs are controlled.



Instruments

To measure the content knowledge in business administration and economics, two existing test instruments are applied and validated with regard to the curriculum: WBT (Beck et al. 1998; an adaptation of the American "Test of Economic Literacy (TEL) from Soper & Walstad 1987) and "Business Administration Knowledge Test" (BAKT) (Bothe et al. 2007). In order to assess the didactical knowledge of economics a new test was developed which takes into account domain-specific practical situations for teachers (e.g. representing different economic contents in an appropriate way).

Research Design



In order to assess the development of student teachers' professional competence diploma and bachelor/master students of business administrations and economics as well as business education (n = approx. 1.000) were accompanied and questioned over three years (fall 2008, 2009, 2010) in the context of a longitudinal analysis. Working with comparison groups allows statements on whether the new BA/MA model really contributes to a higher professional competence.

Results

First results show that bachelor and diploma students marginally differ from each other if other relevant personal and structural characteristics are kept constant. Especially gender, German as mother tongue and length of study seem to be important predictors for content knowledge.

Significance

The aim of the project – to model and assess cognitive dimensions of student (teachers') professional competence in the domain of business administration and economics as well as business education – contributes to the lack of a domain-specific model of professional competence at higher education.

References:

- Baumert, J. & Kunter, M. (2006). Stichwort: Professionelle Kompetenz von Lehrkräften. In: Zeitschrift für Erziehungswissenschaft, 9(4), pp. 469-520.
- Beck, K., Krumm, V. & Dubs, R. (1998). Wirtschaftskundlicher Bildungs-Test (WBT). Göttingen u.a.: Hogrefe.
- Bothe, T., Wilhelm, O. & Beck, K. (2005). Business administration knowledge: Assessment of declarative business administration knowledge: Measurement development and validation. Unpublished.
- Klieme, E., Hartig, J. & Rauch, D. (2008). The Concept of Competence in Educational Contexts. In: E. Klieme, J., Hartig & D. Leutner (Eds.), Assessment of Competences in Educational Contexts. (pp. 3-22). Washington: Hogrefe & Huber.
- Soper, J. C. & Walstad, W. B. (1987). Test of Economic Literacy. New York: Joint Council on Economic Education. 2nd Ed.
- Weinert, F. E. (2001). Concept of competence: A conceptual clarification. In: D. S. Rychen & L. H. Salganik (Eds.), Defining and selecting key competencies (pp. 45-65). Seattle: Hogrefe & Huber.

Project manager: Univ.-Prof. Dr. Olga Zlatkin-Troitschanskaia¹
Co-operation partner: Univ.-Prof. Dr. Martin Biewen³, Hon.-Prof. Dr. Markus Böhner¹
Research assistants: Manuel Förster¹, Sigbert Klinke^{1,2}, Christiane Kuhn¹, Daja Preuß¹

<http://www.wipaed.uni-mainz.de/illev/>

¹Chair of Business Education, Johannes Gutenberg University Mainz; ²Chair of Statistics, Humboldt-Universität zu Berlin; ³Chair of Statistics, Econometrics and Quantitative Methods, Eberhard Karls Universität Tübingen