

## **Recommendation of the Board of the Federal Institute for Vocational Education and Training (BIBB) concerning an international comparative study on vocational education and training (large-scale assessment)**

1. We fundamentally support the initiative of the Federal Ministry of Education and Research to compare the quality of vocational education and training [VET] on an international basis by means of a PISA study on vocational education and training. One aim of a comparative study on vocational education and training should be to determine, also with an eye to future demands, the importance at European level of vocational qualifications (with a skilled worker profile) that are earned through in-company vocational training. Since the findings of this type of comparative study will probably have an impact on future national and European VET structures, we feel it is essential that all players involved in vocational education and training and all groups represented on the BIBB Board come to an agreement in advance on the way a PISA study on vocational education and training should be designed and organized.
2. The type of comprehensive vocational proficiency (skilled worker-level competences) that is taught via 'dual' vocational training structures [which combine part-time schooling with practical work experience] enjoys high international standing. However, countries with this type of training system constitute a minority in the European Union. Many European education systems do not include a differentiated system for vocational qualification as part of their particular education system. In some countries, all vocational training is conducted in a school environment. It cannot however be concluded from this that comprehensive vocational proficiency must be subordinated to school-based/academic knowledge as a yardstick for comparing the quality of vocational education and training. Rather, any serious comparison of school-based and in-company vocational training systems from this standpoint must also take into account phases of familiarization in enterprises and the upstream and downstream paths which other European countries that have school-based training structures use to establish vocational proficiency.
3. However, such an objective requires a VET PISA initiative to have a different substantive prioritization and methodological orientation than what can be discerned in the conceptual preparatory work which the Federal Ministry of Education and Research has presented to date. The approach selected for this preparatory work for measuring vocational competences still places too much emphasis on knowledge that is acquired in school or courses. It has not been possible to date to ascertain and measure comprehensive vocational proficiency using the tools submitted.
4. Unlike general education, the vocational education and training field cannot make use of the experience gathered during the development of testing methods for general education. There have been no instruments to date that appear suited to making the strengths and weaknesses of different methods of organizing vocational education and training completely visible.
5. A large part of the dual vocational training that is typical for Germany is conducted in enterprises in conjunction with modern work and business processes. Methods that would be suited to assessing the outcomes of these learning processes remain underdeveloped to date.<sup>1</sup> The tools that are presently available emphasize knowledge that is acquired in school.

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<sup>1</sup> This was also the finding of a workshop that the DIPF and ITB conducted in Bremen with the help of the Federal Ministry of Education and Research in the summer of 2006. All relevant German researchers attended this workshop to discuss the subject of "Measuring Occupational Competence".

6. An important task for research and development will be to develop in the course of further work scientifically substantiated tools and methods for measuring vocational proficiency which can be used to ascertain and record theoretical knowledge and practical skills – as can be based on modern work and business processes – using common diagnostic criteria. This task will include examining work and business processes and selecting suitable representative tasks.
7. Only with the help of such tools will it be possible to adequately assess different forms of vocational education and qualification between schools and enterprises in Germany or adequately compare them on an international basis. This set of tools should be able to measure vocational knowledge and abilities which individuals who complete a vocational training programme need in order to perform occupational tasks successfully.
8. Parallel to developing suitable instruments for ascertaining comprehensive occupational competences, the current research design for a VET PISA study must be expanded to include an examination of the learning concepts and learning organizations that predominate or bring results in participating European countries. Examples of appropriate questions include: How is the teaching of theoretical and practical vocational knowledge and skills organized? Using school-based instruction, school-based instruction with supplementary phases of practical in-company experience, in vocational schools that incorporate practical phases, by alternating practical in-company learning with theoretical instruction or by other methods? In any case, different combinations as well as learning sequences used for theoretical and practical instruction should be included in the study. Adequately interpreting the findings from a VET PISA will not be possible without a comparison of the outcomes of vocational education processes with the underlying learning concepts – and without an adequate interpretation of the findings it will not be possible to draw conclusions about the different national paths that are more or less suited or more or less effective for teaching vocational proficiency.
9. A research concept for the pilot comparative VET PISA study should be developed and implemented by a broadly composed research consortium. This research concept should enable an informative comparison of the different ways to establish comprehensive vocational proficiency.

The emphasis in this connection should be on measuring competences in real work processes.

The groups represented on the BIBB Board expect to be informed and consulted on a regular basis during the course of the project. In addition, a broad dialogue in the vocational education and training field is to be ensured in this connection.