Fourth International Technical Meeting for PIAAC

Bonn, Germany, 20-21 June 2005

Draft Summary Record

Framework of the meeting

1. The Fourth International Technical Meeting for the development of an OECD strategy for the assessment of adult competencies (Programme for the International Assessment of Adult Competencies – PIAAC) was held on 20-21 June in Bonn-Bad Godesberg, Germany. The meeting was attended by experts from Canada, Denmark, France, Germany, Luxemburg, the Netherlands, Poland, Spain, Sweden, Switzerland and the United States of America. Also present were representatives from the EC, OECD and UNESCO. The meeting was chaired by Mr Klaus Luther (German Federal Ministry of Education and Research). → *see the list of participants in Appendix A*

Introduction

2. Mr Luther opened the meeting by describing the important role of the OECD in creating a forum for international cooperation. With regard to projects like PISA and PIAAC, the OECD has built successful structures in the field of international comparative measurement of skills. Mr Luther pointed out that projects of this type are not only valuable in terms of international comparison but also as crucial springboards for fruitful national research and international cooperation. The intention of this workshop is for PIAAC to move forward in a timely fashion and to reach a consensus on the priorities and objectives based on a coherent framework and theoretical model. → *see Mr Luther's opening remarks in Appendix B and the meeting agenda in Appendix C*

Inputs

3. Ms Veronika Pahl from the German Federal Ministry of Education and Research outlined the German national data strategy which will include an educational panel. This panel approach is necessary to analyze the construction and course of educational biographies longitudinally, to generate the data basis for reporting on "life-course education", to support the realization of strategies for lifelong learning, to analyze challenges for individuals and society, and to further develop the educational system and relevant educational institutions. Ms Pahl intends to achieve maximum compatibility between the German panel approach and international studies as well as other existing national studies. → *see Ms Pahl's presentation in Appendix D*
4. Mr Koji Miyamoto from OECD summarized the main conclusions from the previous PIAAC Workshops in Ottawa, London and Paris. The Ottawa proposal basically suggested the development of a computer-based adult skill assessment for implementation in 2009 with a special focus on ICT and problem-solving competencies. In London the Job-Requirement-Approach and its implications were

the main topics. In Paris a range of assessment issues including aspects concerning the background questionnaire were discussed. One of the recommendations was for example: The background questionnaire should provide information on demographics, skill determinants, outcomes and skill usage, on policy environment as well as individual participation in adult learning and other labour market programmes. → *see Mr Miyamoto's presentation in Appendix E*

5. Ms Marilyn Binkley provided a historic perspective of the objectives, instruments and methods as well as the outcomes and consequences of the main studies and surveys that laid the ground work for the measurement of adults' competencies. She gave more detailed information on IALS and ALL and pointed out that although there were improvements from IALS to ALL, it is necessary for PIAAC to further expand and move beyond ALL. She showed three ways to do this: By adding new dimensions such as ICT and complex problem solving, by expanding the theoretic framework following from DeSeCo´s definition of competencies, and by expanding the model to more explicitly include the systems that produce abilities. → *see Ms Binkley's presentation in Appendix F*
6. An introduction to the assessment of problem-solving competencies was given by Mr Jean-Paul Reeff and Ms Anouk Zabal. Mr Reeff illustrated the policy relevance of measuring problem solving and gave an overview of important milestones in the assessment of problem-solving competencies. Ms Zabal presented the ALL problem-solving instrument as one concrete example. She outlined the test construction rationale, the proficiency levels and gave examples of typical tasks. Mr Reeff outlined the goal of the international expert panel working on a more elaborated problem-solving framework for large-scale assessments. The instrument measuring problem solving should be embedded within a real-life-context, should not require specialized knowledge, should integrate and extend assessment efforts based on paper-and-pencil tests, and use the features made possible by technology-based assessment (complex problem solving). Possible extensions of the framework related to problem solving and problem solving in an ICT-rich environment were outlined. → *see Mr Reeff's presentation in Appendix G and Ms Zabal's presentation in Appendix H*
7. Ms Binkley, assisted by Scott Murray from UNESCO, showed some possibilities for expanding the ALL theoretical framework which distinguishes basic skills, essential skills and job specific skills on the one hand and fully portable, largely portable and narrowly portable skills on the other hand. Although PISA, IALS and ALL provide a sound foundation for measuring the ability to do something, they pointed out the need for international measures of dispositions in the sense of DeSeCo and for measures of demonstrations of performance. → *see Ms Binkley's presentation in Appendix I*
8. Mr Dieter Gnahs looked at factors that produce abilities or influence abilities. Educational policy-makers need information on the causal structure of factors and the interrelationship between factors in order to be able to improve the outcome of abilities. One group of factors could be directly steered by policy: Institutional factors, such as the training and re-training of instructors, the number of instructors and the curricula. Other factors, especially individual

factors, could only be influenced in an indirect way. → *see Mr Gnahs' presentation in Appendix J*

9. Ms Beatrice Rammstedt presented the theoretical background and empirical studies on the probable impact of dispositions on outcome variables with regard to personality. She illustrated the "Big Five" approach and summarized the empirical results that show that the Big Five are worldwide validated and that they are highly stable over the life span. Ms Rammstedt pointed out that the Big Five are related to performance variables that are relevant in the context of PIAAC and could therefore be useful as a predictor. In her opinion, the approach is feasible for large-scale assessment because there is a well-established and highly economic inventory with only ten items which could be completed in less than one minute. → *see Ms Rammstedt's presentation in Appendix K*
10. Mr Robert Hauser from the University of Wisconsin-Madison discussed some design issues for studies like PIAAC or the German education panel. Contextual measures should include complete education histories (by self report), job histories and areal characteristics of place of origin and intermediate places. Social background measurement should cover things like parents' education, number of siblings, parents' occupation, language use and family structure. Mr Hauser discussed the advantages and disadvantages of sample design possibilities such as longitudinal vs. cross-section, single vs. multiple respondents, and considered different issues pertaining to the survey design such as non-response, length of interview, Computer Assisted Personal Interviewing (CAPI) and Computer Assisted Telephone Interviewing (CATI). →*see Mr Hauser's presentation in Appendix L*
11. Ms Hilde Schaeper made some concrete proposals on how to measure participation in education and labour market outcomes in a longitudinal perspective. She presented a method called "event history calendar" which takes advantage of the way that autobiographical memories are stored and structured. It yields more accurate data on the timing and sequencing of events than a more simple question list and is applicable in diverse interview situations including computer-assisted or paper and pencil tests in face-to-face interviews. → *see Ms Schaeper's presentation in Appendix M*

Outcomes

12. There was widespread consensus with regard to the following points:
    - PIAAC is necessary and politically relevant.
    - Existing theoretical assessment frameworks need to be expanded and we need to more specifically analyze the causal structure of variables "before" and "behind" abilities.
    - Problem solving is an important competency to be assessed in PIAAC, either in context with ICT or alone.
    - Work on the background questionnaire is necessary and should be emphasized because it is crucial for delivering politically-useable information.
    - There are many instruments and techniques to collect background and context information which are already implemented in large-scale surveys and which can be used as a constructive starting point for further development.
    - An international research programme would be very desirable in order to strengthen PIAAC.

13. The following points – among others – need to be discussed further:
    - How should an international cross-sectional approach be designed to be compatible with a (optional) national panel approach and vice versa?
    - What is the exact role of technology based assessment in the context of PIAAC?
    - Could ICT be subsumed as a sub-domain of problem solving,? Is it possible to think of some countries concentrating either on ICT or on problem solving with national optional domains?
    - Generally: What should be the core of PIAAC, what might be national options? What is the sound basis to start with in 2009, what might be included later, after thorough research and tests?

Research Perspectives

14. There was a high level of agreement to launch a multilateral and international research programme. In order to arrive at more concrete results, participants were asked to write down suggestions for important topics that should be covered in the context of PIAAC. The very varied and numerous topics that were contributed were roughly structured, and participants were then requested to prioritize the topic clusters. This exercise resulted in the following list (in order of priority):
    - Problem solving: Including this and moving forward is of prime interest. There are two subsets which require special consideration – ICT and collaborative problem solving. One possibility includes thinking about problem solving as the overarching framework that includes all skills or with subscales related to literacy, mathematics, etc.
    - Technology Based Assessment: This includes two dimensions – the underlying architecture for test building, and the platform for delivering the instruments in a way that will minimize implementation problems and maximize efficient use of the systems in place. This calls for a set of technology professionals from outside the education community.
    - Job related analyses. This has two sides – understanding the demands of jobs, and understanding the available skills' supply. One of the important questions is how measurement of key competencies and more employment-directed competencies could be linked to each other?
    - Appropriate model of competence. Further elaboration of the measurement model and discussion of the component pieces are required. Furthermore, more development work needs to be invested in the specification of demonstrations of competent performance and how to rank these to display levels of different types of competence.
    - Vocational education and training and re-training. The question here is: How different national systems be incorporated in the set of context "variables" so that international differences in competence levels can be (partly) explained by different systems and their performance.
    - Elaboration of dispositions should be based on the DeSeCo-model, later: decision whether dispositions should be included in the survey 2009 or should be investigated further.