Globalization and Education

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Bangkok, October 2014
Challenges PISA 2018

• To review and further develop the Reading Literacy framework (major domain in 2018)

• To review and further develop the Background Questionnaire framework

• To newly develop an assessment framework on „Global Competence“

• To review the frameworks on Mathematical Literacy and Scientific Literacy
Partnership

• Lead: DIPF (Jean-Paul Reeff, Eckhard Klieme)

• Partners:
  • Liège University (Dominique Lafontaine)
  • CRET/Benesse (Kenichi Arai)
  • UNESCO Bangkok (Satoko Yano)
Framework development

What are the benefits of a framework?

(Irwin Kirsch, ETS, 2001)
Framework Development

“The primary benefit of developing a framework for any assessment is improved measurement. Improved measurement includes enhancing interpretability, allowing us to understand more about how performances differ. Other potential benefits include the following:
Framework Development

• A framework provides a common language and a vehicle for discussing the definition and assumptions surrounding the domain.

• This discussion provides a mechanism for building consensus around the framework and the resulting measurement goals.

• The process of developing a framework and linking it to evidence collected from the assessment will provide a better understanding of what is being measured.

• This understanding and its connection to what we learn about students provides an important link between public policy, assessment, and research, which furthers the utility of the data that are collected.
Framework Development Model

Defining the Domain

Organising the Domain

Identifying Task Characteristics

Operationalising Task Characteristics

Validating Variables

Building an Interpretative Scheme

Minimum scope of work when developing a draft framework
Defining the Domain.

The first task is to develop a working definition of the domain, including the assumptions underlying it. Before the definition is developed, the domain and the skills and abilities it encompasses are open to a variety of interpretations. It is the definition that sets the boundaries for what will be measured and what will not.
Organising the Domain

Once the definition is developed, it is important to think about the kinds of tasks that represent the skills and abilities included under that definition. Those tasks must then be categorised, or organised, to inform test design and result in meaningful score reporting. Step 2 allows developers to move beyond a laundry list of tasks or skills to a coherent representation of the domain that will permit policy makers and others to summarise and report information in more useful ways.
Identifying Task Characteristics

The next part of constructing the framework consists of identifying a set of key characteristics that will be used in constructing tasks for the assessment. This may include characteristics of the stimulus materials to be used as well as characteristics of the tasks presented to examinees.
Once task characteristics are identified, the variables associated with each characteristic must be specified. For example, context might be identified as a key characteristic of the stimulus materials on which tasks would be based. In this step, specific context areas from which stimulus materials would be selected (for example public and educational contexts) need to be defined.
Validating Variables

After the assessment has been administered, research is conducted to show which variables account for large percentages of the variance in the distribution of tasks and thereby contribute most towards understanding task difficulty and predicting performance.
Building an Interpretative Scheme

The final step is to build an interpretative scheme using the validated variables to explain task difficulty and examinee performance."
Positive experiences with this rationale

- Well established rationale
- Successfully used in PISA and PIAAC, as well as in non-OECD contexts
- Easy to implement
- Efficient from a time and other resources point of view
Challenges related to this rationale

• Very well suited for established competencies/domains, that are well rooted in scientific research and – as a consequence - easily to be implemented by available and acknowledged domain and assessment experts.

• However, „Defining the domain“ and „Organising the domain“ needs more in depth-work in the case of new domains, where scientific expertise is not as largely available as in the traditional domains.
Solution

- Develop a broad, innovative and sustainable conceptual framework

- Include in this step broad conceptual expertise that is not limited by assessment constraints

- Derive subsequently an assessment framework that takes into account the short-term limitations of the envisaged assessment and follow the original rationale
Conceptual Framework Rationale for Global Competence

- Globalization Challenges and Risks
- Globalization and Education
- Global Competence Assessment
Broader Set of Objectives

• To identify potentials, challenges and risks of globalization from a **non-education perspective** to have a non-biased reference for subsequent “educational” discussions
• To identify Global issues that impact how **education** is structured and framed both nationally and internationally, to understand what drives demand for global competencies and to carry out research on how education systems can effectively implement and deliver these skills and competencies
• To develop **assessment** frameworks and assessment instruments to monitor and evaluate progress.
Procedure

• Three workshops in early 2015, related to each of the 3 facets outlined above (globalization per se; globalization and education; global competencies assessment)

• Concurrently: 1 year preparatory study for a longer-term international research and development (priority) PROGRAM to cover all three facets. This includes clarification of all international funding issues

• 7-year Priority Program as defined under 2)
Thank you for your attention.
You never have the time to do things right, but you alway have the time to do them twice.