## Development of a PBL readiness scale

E. de Graaff professor Aalborg University Aalborg E-mail: degraaff@plan.aau.dk

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## ABSTRACT

Since the introduction in medicine and engineering in the seventies of the last century, Problem Based Learning (PBL) has been implemented successfully in higher education, preparing students for a broad variety of professional disciplines [1]. Around the world experiences clearly testify that changing to PBL presents a major challenge to teaching staff [2]. It is not so much they need to learn a new teaching method, but rather they need to change their basic attitude towards teaching and learning [3]. This paper describes the development of a questionnaire aiming to assess readiness for project work in engineering. In the construction of this instrument three sub-scales were recognised. The first two scales focus on attitudes, asking respondents to rate value statements and preferences with respect to teamwork versus individual learning. The third scale aims for self-assessment of teamwork skills.

The instrument was tried out during a four day workshop for faculty of six universities in Moldova in the course of the Erasmus+ project PBLMD: "Introducing Problem Based Learning in Moldova: Toward Enhancing Students' Competitiveness and Employability". The workshop 'Working with Projects and Cases - Reflection on Personal Skills' aiming to train about 40 participants in the basics of PBL facilitation was held on January 16-20 2016). The results of this first trial are presented, showing that the two attitude scales did not show sufficient consistency as expressed by Cronbach's alpha. The results of the skills scale are promising.

## REFERENCES

- [1] Boud, D. & Feletti, G. (1991) *The Challenge of Problem-based Learning*. London: Kogan Page. 333p.
- [2] De Graaff, E. and Kolmos, Anette (2007). *Management of change implementation of problem-based and project-based learning in engineering*. Netherlands: Sense Publishers. 221 p.

[3] Kolmos, A., De Graaff, E., Du, X. (2009). Diversity of PBL: PBL learning principles and models. In Du X.; De Graaff E. and Kolmos, A. *Research on PBL practice in engineering education* (pp. 9-21). Rotterdam: Sense Publishers.