COLLABORATIVE DEVELOPMENT OF A PROBLEM-BASED LEARNING EVALUATION TOOLKIT

CAROLYN GIBBON, UNIVERSITY OF CENTRAL LANCASHIRE

Introduction

Problem-based learning (PBL) has been championed in many disciplines as an effective student-centred process of learning. The body of literature extolling the virtues of PBL is vast, yet questions are still raised over the effectiveness of PBL. PBL is credited with developing many transferable skills such as team-working, collaborative learning, and communication skills, as well as knowledge acquisition. Yet it would appear that PBL continues to demand scrutiny in a way that arguably, the provision of lectures does not (Boud and Feletti 1997). In order to support and encourage pedagogical research into this area, a PBL Evaluation Toolkit has been developed. This paper will discuss the development of the Toolkit and how educational practitioners may use the tools within to support their research.

Background

The Health Science and Practice Subject Centre of the Higher Education Academy, supports a number of Special Interest Groups (SIG), including one dedicated to PBL. This multidisciplinary group (approximately 95 members) has been meeting regularly for 9 years to discuss and debate issues related to PBL and the author has been the Facilitator of this group during this period. The maturity of the group is best illustrated by the decision to move the focus to considering how PBL can be evaluated meaningfully and systematically in order to deliver a high quality process, and ultimately to strengthen the evidence base for future practice. It was determined that there was a need for easily accessible evaluation tools and the concept of the PBL Evaluation Toolkit emerged.

Creating the Toolkit

Published evaluation of PBL in the UK has been patchy and lacking coherence (Marcangelo and Ginty 2006), but despite this, there is a sustained belief that this method of facilitating student learning develops and promotes motivation, meaning and lifelong learning skills. Using the networks of the SIG across numerous higher education institutions, the aim was to obtain robust evidence through meta-analysis for what is effective practice in PBL. Using a baseline for the collection of articles, a small group of volunteers met on a regular basis to develop and write the Toolkit. This baseline is described within the Toolkit, along with the list of editors (one of whom is the author) and the contributors. Whilst the Toolkit is presented here, it is situated on-line with the Health Science and Practice subject centre, and its use is advocated by other disciplines, including the health professions. It can also be accessed via the website dedicated to the development of a PBL research database (address below).

The PBL Evaluation Toolkit

Following extensive literature searching (HEA Website) a Toolkit of evaluation methods that can be used with the ultimate aim of building a fuller evidential base of the effectiveness of PBL as a learning methodology was created. Four areas regarded as critical to the effectiveness of PBL have emerged and form the basis of the toolkit. These areas are facilitation; student experiences of PBL; effectiveness of learning; and assessment processes. The toolkit uses tried and tested evaluation methods appropriate to the particular area under scrutiny, such as the standard course experience questionnaire (CEQ) and semi-structured interview schedules (Ramsden and Entwhistle 1981; Maudsley 2001; Richardson 2005). Each section recommends particular methods, with guidance on how to use the instruments to collect data in a manner that will not only inform the local delivery team, but also contribute to larger scale evaluative research of effectiveness.

Collecting and sharing data

The Toolkit is published and available at **http://www.pbldirectory.com/toolkit** along with the opportunity to add to the research database. Besides identifying areas for research, guidance is given both diagrammatically, as well as textually, about collecting and sharing data. Guidance is also offered in respect of obtaining ethical approval, as well as issues to consider when using surveys and/or focus groups (Cohen, Manion and Morrison 2000). The PBL SIG has dedicated web pages (links can be found from the web address above) within the Health Science and Practice subject centre and work is currently underway to

create new pages specifically for PBL research that emerges out of using the Toolkit. It is hoped the Toolkit will help to encourage researchers, especially new researchers and others new to pedagogical research, to participate in this area.

References

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