

# Constructing a Professional Development framework for PBL at a Middle East HEI

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## Abstract

This research paper reports on the trajectory of a recently established HEI in the Middle East and the challenges faced in embedding PBL as the underpinning methodological approach for Teaching and Learning. This paper documents the implementation and subsequent review of teacher training and development activity at a tertiary education provider specialising in student centred learning (SCL). The paper seeks to draw from the research evidence base to propose a way forward in establishing a professional development (PD) framework which supports the continuing training and upskilling of teachers at Bahrain Polytechnic. The paper documents the chronology of such work in response to institutional research, operational challenges and ongoing review. The paper reports on the proposed adoption of a transitional professional development approach to provide sustainable PD in support of the facilitation of student centred learning at Bahrain Polytechnic, seeking to document the process thus far, report on the updated intra-institutional research findings and the subsequent attempt to construct a framework to support the implementation of a sustainable training and development offering for academic staff.

*Keywords: Professional Development, PBL, Quality Development, Teaching and Learning, Student Centred Learning*

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## 1. Introduction

Bahrain Polytechnic was established in 2008, by the Bahrain Government to address the need for a skilled Bahraini labour force and to support economic growth and diversification. Five years on, the Polytechnic may be considered to have moved out of set up and into consolidation phase. During this time, the Polytechnic has established itself as an important HEI in the Kingdom of Bahrain, with a current student cohort of 1800 who attend 23 applied undergraduate and foundation courses across three faculties and six schools. The institution offers a range of applied courses to bachelor's level, including Business, Engineering, ICT, Visual Design, Logistics and Web Media. The first cohort of graduates is anticipated for June 2013.

## 2. Background

In terms of teaching and learning, the Polytechnic has, since its inception, marketed itself as a PBL institution, with a focus on producing work ready graduates in response to the 2030 Economic Vision for Development (and growth) in the island kingdom. In order to achieve this, there is an imperative to populate the employment market with a skilled local labour force. The current vision and mission, revised and approved in 2013 speaks of the institution becoming a “*world class provider of applied higher education, producing professional and enterprising graduates with the 21st Century skills necessary for the needs of the community locally, regionally and internationally delivered in co-operation with our society and the wider educational community.*”

As Coutts, Huijser and Almulla (2011) outlined, the Polytechnic initially engaged with a project based approach to developing a PBL focused methodology for the facilitation and delivery of a portfolio of applied courses. While the set up and establishment of a PBL-led HEI proposed a huge challenge, it was also in many ways seen as having significant advantages; effectively providing a carte blanche to create new PBL applied curricula for all courses through collaborative design, and the freedom to innovate. A key challenge in achieving this objective clearly centered on creating baseline knowledge and experience of PBL amongst faculty, more so given the nature of what might be defined as “teacher capital”. Drawing on Bordieu’s (1973) conceptualization that students come with a complex set of knowledge, experiences and dispositions, it may be posited that the same is true of teaching staff; they may have diverse and eclectic backgrounds with a range of expertise and experience, rooted in individual and institutional pedagogies and practice. The challenge then at the outset was for the Polytechnic to provide an introductory level of training and development in PBL, which would allow tutors to engage in delivery and then to grow such work into a fully fledged form of continuing professional development (CPD), support and training which would provide a sustainable and manageable portfolio for staff to access.

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### *2.1. Initial Set up*

Five years on, it is useful and pertinent to review progress on the original intention of providing training which would support the integrated approach originally espoused; where space for discussion would enable staff to debate the issues arising around PBL and its implementation, and allow for resolutions to be found. Clearly, the success of such an approach would be contingent upon the provision of appropriate and timely support and training for staff. The original focus for teacher development was to provide tutors with front-loaded training that would familiarize them with the pedagogical context of Employability driven curricula supported by a SCL methodological approach to teaching and learning.

### *2.2. Implementation activity*

As part of the start-up activity, the Polytechnic worked with PBL experts to deliver a range of workshops for staff, and initiated a series of PBL pilots, which would form the basis of a phased programme roll-out across all Polytechnic faculties, frameworked within a five year plan. This plan was later reviewed and amended to create a more integrated working plan which responded to the multiple perceptions of PBL amongst teaching staff. The revised version advocated continuous support from PBL experts into courses, under the guidance of a newly appointed Steering Committee. The key strand of work comprised of a front loaded training programme led by experts in the field of PBL and delivered to the first cohort of teaching staff in July and August 2010. Subsequent to this, the Steering Committee assumed the role of monitoring, consulting on and providing directives to ensure the embedding of PBL methodology was facilitated across the institution; part of the Committee's remit was to advise on support for teachers tasked with leading on PBL at course and programme level. The Committee worked with the Professional Development Centre at the Polytechnic - an informal PD planner was created and populated with workshops, seminars and one to one training sessions which focused on the salient topics raised in discussion with tutors Human Resources (HR) and Staff Development Specialists, who then worked to organise training for staff and signpost them to PBL and Curriculum Specialists for further help and guidance. This arrangement developed organically, was loose in framework, and at times reactive, working to provide training often after consultation and equally at times through forward planning.

### *2.3. Post implementation activity.*

Following the start-up planning and piloting activity, the Polytechnic committed to supporting all staff by inducting them into the Polytechnic focus on SCL and PBL; initial training centered on working with all incoming staff to provide them with an introduction to teaching and learning through Certificate in Tertiary Teaching and Learning (CTTL). The CTTL programme comprises of three courses – Introduction to Teaching, The Adult Learner and Technology in Teaching – the certificate is modelled on an existing level 5 programme and is designed to give tutors an introduction to the fundamental principles and practices of teaching and learning for third level instruction. While there was some debate and movement of position in terms of who may be required to complete the course, it was ultimately decided that all staff engaged in teaching and learning activity should be required to do so as a mandatory activity. It was felt that this would help to create a community of practice (Wenger 1997) with common values and understanding of PBL, work to counter the more traditional notions of so called “chalk and talk” or more didactic teaching approaches and enable managers and faculty to experience and understand the Polytechnic concept of PBL as an integrated flexible approach to applied instruction. The mandatory requirement was deemed necessary as many of the staff came from a variety of backgrounds, and had been selected for their industry experience – to enable current knowledge and skills transfer into courses. The CTTL was seen as a vehicle for the start of a discourse around teaching and learning at the Polytechnic.

Alongside the intensive CTTL course, delivered as a follow-on to induction training and prior to the commencement of teaching, tutors were also supported with the presence of Curriculum Specialists (3 FTE) to work with them on an ongoing basis, specifically in the areas of assessment and quality management. It was hoped that this two-pronged approach would assist staff in making the paradigm shift from the teacher-centered model to a specific variant of student centered learning (SCL). The crux of the teacher training strategy adopted was one of creating “events”, managed and delivered by Teaching and Learning specialists, who in turn worked with PBL staff – which in PD terms meant training and development activities on a regular basis, designed to support and guide staff in the acquisition of the knowledge and skills needed to engage with a PBL delivery model. It was anticipated that with the combination of bottom- up support and top-down direction that staff would migrate naturally, though experience and practice to Problem Based pedagogy.

### *3.0. Research and review.*

In 2010 (Coutts, Huijser and Almulla) documented the findings of institutionally based research, which sought to review the outcomes of the initial efforts to embed a pedagogic culture of SCL, and specifically PBL. This first small scale qualitative research conducted in 2011 aimed to capture and understand the perceptions and interpretations and engagement of staff with

PBL. Through a series of interviews, focus groups with teaching staff and managers, and analysis of pilot courses, the researchers presented a list of findings and recommendations.

The findings provided key emerging themes amongst staff, primarily around anxiety in undertaking what they perceived to be a new teaching approach, and a key concern around the provision of professional development to support staff. In the Spring of 2012, following the initial research and review, a further small scale research project was undertaken by the Quality Measurement and Analysis and Planning department (QMAP) and the newly appointed Acting Manager for Teaching and Learning at the Polytechnic.

### *3.1. Method*

A qualitative approach was taken as the researchers wished to gain further insight into the perceptions and interpretations of staff regarding PBL and their engagement with it. The three main sources of data which informed the research were a questionnaire disseminated to all staff in May 2011, open focus groups at the Bahrain Polytechnic Third Teaching and Learning Symposium held in July 2012 and a range of documentation held by the Polytechnic for audit and evaluation purposes. The objective of the research was to build upon the previous research conducted in 2011 (op cit Coutts, Huijser and Almulla).

#### *3.1.2. Documentation*

A number of documents helped to inform the review and development of PD: The Annual Review Documents for CTTL; evaluation questionnaires completed by staff who had attended the additional suite of PD events across the academic year, and unsolicited staff generated communications about the CTTL and other PD work, all provided an insight into the aspects of the training; which areas might benefit from enhancement, and which areas of training and development were deemed to be useful by the participants.

#### *3.1.3. Questionnaires*

A questionnaire (Appendix I) was devised and disseminated by the Quality Measurement and Analysis Department of the Polytechnic in May 2011. The document was sent out electronically and reminders were sent at weekly intervals to all staff until the close of sampling period (May- June 2012). Completed questionnaires were returned to the QMAP for analysis. QMAP worked closely with the Teaching and Learning Unit (TLU) to identify key themes emerging from the responses; content analysis was used to identify specific themes.

#### *3.1.4. Focus Group*

The focus group participants attended the Symposium workshop sessions “*Don't Dispel PBL*” (McGirr, 2012), at which the initial findings of the QMAP survey were presented. The participants worked in small discussion groups tasked with providing responses to the three questions previously presented in the questionnaire, giving verbal feedback which was recorded by a researcher. Participants were encouraged to expand upon their responses, and to express their views without prejudice.

### *3.2. Results and Findings*

Of the 160 questionnaires sent out to staff in May 2012, 53 responses were received by the deadline and subsequently analyzed; the response rate was 33 %. The Symposium presentation and focus group was attended by 23 members of staff, 6 of whom had completed the questionnaire previously – indicating that a total of 68 staff responses contributed to the final feedback. The evaluation forms, referred to previously in 3.1.2, provided subsequent to the individual development and training sessions in-house by teaching and learning specialists had an 80% return rate, with a total of 87 completed.

#### *3.2.1. Responses*

The range of survey responses given demonstrated an inconsistent understanding of PBL whilst simultaneously highlighting significantly higher levels of understanding around specific aspects of PBL. The focus group responses reiterated and corroborated the findings of the survey. Further analysis of the data, and ranking of the frequency of responses indicated that the key concerns raised were:

- There is confusion regarding the institutional articulation of PBL
- There is a perception that the Polytechnic has a partial commitment to PBL
- There is a desire amongst staff for more robust and higher level teacher training for PBL.
- There is a perceived lack of consistent and coherent ongoing training for staff
- There is no single or common understanding of PBL; knowledge is patchy and varies from faculty to faculty

- Staff perceive that there is no clear understanding on the part of the students and very mixed expectations. Student capital is varied and variable

### 3.2.2. *Emerging themes*

In contrast to the findings of the research conducted in 2011, the work of 2012 indicated that staff understandings of PBL were more disparate, less positive amongst the respondents, with some individuals indicating a clearer perception of some of the specific aspects of PBL, while others noted that they were either unsure or unconvinced of the value of PBL. This would suggest that despite a sustained programme of staff development, the knowledge base regarding PBL had diminished compared with the previous research findings presented 12 months earlier. Most staff articulated a commitment to this methodological approach, whilst the more detailed responses showed that tutors from certain faculties expressed a stronger commitment to the approach and felt more comfortable about it. Furthermore, a small number of respondents perceived this as a lack of success, institutionally, citing inconsistent training as a key factor. Further inspection indicated that while training was offered, awareness was low amongst some staff, and this may be a factor in non-attendance. The comments provided highlighted that many staff did not recall receiving any consistent communications regarding PD, and therefore found planning difficult.

The review of documentation drew out similar themes – the annual review documentation for CTTL and the completed evaluation questionnaires underlined the need for more subject specific and practical training in PBL, whilst also questioning the appropriacy of the level of the course (level 5 NQF). Many staff expressed a need for further higher level training (PG level), and cited the need for internationally accredited certification.

### 3.2.3. *Recommendations*

While operational recommendations can be made in response to the emerging themes and findings of the two research projects, it is worthwhile considering how the Polytechnic may wish to framework Professional Development going forward. Recent organisational changes have a part to play, and should not be eschewed in favour of resorting to a simplified model (the Polytechnic engaged in an organisational review in 2012, resulting in some changes to department structure)– rather, in working with those changes, the newly established Teaching and Learning Unit may seek to establish an holistic and sustainable model of practice which brings together the Polytechnic community – creating a broader community of practice with variable but consistent discourses around our educational mission. In a subsequent institutional report on the research, the following recommendations were outlined as key:

- Develop / Review and articulate a clear institutional Strategy for PBL at Bahrain Polytechnic
- Develop/ Review a Resource Plan to ensure all faculties have the appropriate equipment, staffing and materials
- Develop and implement ongoing and robust programs of staff training, with a two tier approach – introductory and advanced training
- Ensure awareness of PBL for all incoming cohorts of students
- Develop an institutional awareness and understanding of Scholarship around PBL Teaching and Learning through the promotion and support of research

## 4.0. *Developing a Professional Development framework*

### 4.1. *Discussion*

While the recommendations present us with a base from which to depart, there is a need for us to be more ambitious in our planning and as the phase of development demands, and to aspire to *consolidate* the work we have already undertaken. In order to do this, we need to consider the variable factors and forces at work. In reviewing the staff responses to the questionnaires, and comparing them to the evaluation forms completed over a longer period of time, it became evident that one of the key factors impacting on institutional conceptualization and adoption of any methodological approach is the natural attrition of staff. Of the original staff who received initial training and engaged in pilots in 2010, 55% remain. Despite the continuing staff training and development, it is clear that it has not kept pace with the natural levels of succession occurring – and in turn this has impacted on staff perceptions of institutional knowledge and expertise. Staff mobility and turnover are important influencing factors, notably the natural attrition rate which influences how much of our corporate (professional) knowledge we retain. With an average turnover of 10% of staff annually, the Polytechnic needs also to look at how it can provide initial training for incoming staff, whilst building upon the knowledge base of others. We seek not to diminish our broader base of pedagogy, but to understand our practices more, and to consolidate good practice. Furthermore, as Chalmers et al (2008) note, participant choices regarding development are directly related to employment prospects – this has bearing on the type and nature of training selected and any commitment to it. Inherent in any offering, we must strive to embed dual motivations, ensuring intrinsic and extrinsic value.

A further consideration is the notion of commitment. Upon inspection of the documentation, it became clear that the take up of additional PD by staff once they had completed the taught components of the CTTL was inconsistent; some staff committed

regularly to monthly or bi-monthly PD, while others did not complete any further training subsequent to the CTTL training. Effectively, this means that some staff members could have completed at least two academic cycles without any additional training or support – and while it should be recognised that this may only be true of a small number of staff, it is nevertheless a concern, which has broader and far more serious implications for the quality of teaching and learning. This indicates that aside from reviewing the current offering of PD content, we need to consider how we manage attendance, and what type of protocols and policies we put in place to foment better achievement and completion rates amongst participants.

A strategic approach to the construction of a workable and sustainable framework requires consideration of the factors at play, extra and intra institutionally. With the organizational restructure of the Polytechnic, and in response to the commendations and recommendations of the NQAAET Audit Report in 2011, the Academic Directorate has recognised the importance of a dedicated Teaching and Learning Unit (established July 2012), thus consolidating the work completed by the teaching and learning specialists in the set-up phase and beyond. The unit has been allocated a quota of up to six FTE staff by the end of the next 5 year planning cycle; this augurs well for the future and demonstrates the commitment to support and training of academic staff.

Similarly, the Polytechnic, as part of its reorganization (April 2012) has set up a Professional Development Advisory Committee to monitor, inform, disseminate and approve applications for PD from both academic and allied staff. Since its inception, the Committee has completed a significant workload – receiving and approving 400 plus applications, with 75 per cent of those emanating from academic staff. The work is owned by the HR department, which in turn works to establish and manage policies for professional development, linked to an annual (reflective) review process.

If the goal of CPD at the Polytechnic is to recognise the need for the shift from the traditional / chalk and talk / didactic model to the generically named student centred model, then we do well to ponder the evidence from recent reviews carried out by Stes et al (2011), and Prosser and Trigwell (2007), whose investigations into teacher development activities give us food for thought. Research shows that PD programmes had, over a 30 year period in the UK, effected marked changes in teacher conceptual perceptions, particularly in guiding staff to student centred pedagogies; this supports the move to establish a core suite of PD – both introductory and advanced for all incoming staff to the Polytechnic. Postareff's follow up study (2008) confirms not only the positive impact on staff of PD, but also the nature of it, reporting positive changes on practice by teachers who had participated in *accredited* training (comparing favourably with and in contrast to the control group who had not completed any training).

The Recent HEA review of the impact of teaching development programmes in higher education (2012) identified *duration* as a key to successful teacher development. Differentiating between the impact of long term training in comparison to shorter interventions – which in some cases may affect teachers' perceptions negatively and lead to a diminution in self efficacy - evidence suggests that front loaded and intensive programmes, while valuable have little long term impact. Indeed, for PD to be valuable, it needs to engage the individual over a period of time. Empirical feedback institutionally further supports this – staff have clearly indicated that without accreditation, qualifications, while interesting, may have little value – and not least in an educational setting where expats make up the bulk of the teaching staff; many of whom are mobile. Any development activity then should be: incremental, long term, accredited and portable in order for it to have intrinsic and extrinsic value for staff.

The proposal is to engage with a *transitional quality development model*: which recognises the paradigm shift required of staff, builds capacity from work already achieved through the delivery of long term PD and engages staff and the institution in a reflective planning activity with tangible outcomes overseen by the HR department.

D'Andrea and Gosling (2005) propose an integrated model for professional enhancement which synthesises Teaching and Learning with Quality Assurance by addressing the tensions between the two prevailing forces ( QMAP and TLU), seeking to create dialogue between managers and teachers, and ultimately address the internal and external policies and procedures regulating any HEI. If the QMAP informs the requirements of standards and indicators, mandated by external regulators while TLU seeks to benchmark and enhance practice to meet internal imperatives, it is the PD offering which is crucial to the successful convergence of these, and may be viewed as a powerful vehicle. Appropriate, timely and effective PD brings knowledge and expertise to the organisation, and greater self efficacy to the PD participant, all of which inform the teaching, and notably learning of the HEI. As D'Andrea and Gosling (op cit) underline, any ensuing debate facilitated through development activity enriches the concepts of teaching and learning. In advocating a transitional model (Kennedy, 2012) we recognise that such a model is flexible enough to tolerate underlying and competing agendas (Quality requirements, TLU objectives and Management directives).

In essence, distilling the discussion into key indicators is helpful in progressing towards the construction of a framework for PD. In developing a structure using the following precepts, we may meet the HEI requirements for quality assurance and facilitate the support and development of staff, and in doing so work to meet the institutional vision and mission. In other words, if our framework supports the specific and individual training needs of staff from the bottom up, we have a greater opportunity to ensure our staff members are engaged with the discourse of individual and institutional practice.

PD framework must be		How
<b>Aligned</b>	With the vision and mission of the HEI	Selecting / Providing PD which speaks to PBL and SCL
<b>Valuable</b>	For the Individual and Institution	Accredited Long term Mapped to Professional body competence and awards
<b>Sustainable</b>	In terms of cost and provision	Draw on internal expertise first Promote scholarship Seek external expertise incrementally over time
<b>Triangulated</b>	To respond to policy (QMIP), external drivers (NQQAET) and imperative for best practice in teaching and learning.	Embed as part of the staff performance review process Establish a reflective developmental (not punitive) process

Figure 1. Precepts for a PD framework

## 5 What next?

The Polytechnic, in establishing precepts for the development of a consolidated PD framework (moving away from the set up model which was looser, less defined and more organic in nature), is committed to engaging in a discourse around learning and teaching, which in itself is characteristic of the phenomenon identified by D'Andrea and Gosling, (2005) and Stes *et al* (2010), and deemed to be one of the remarkable features of the HEI sector development during the past decade by Parsons *et al* (2012). Practical aspects of the work going forward should align with modelled best practice and sustainability. If we are able to achieve the construction and implementation of a regulated and informed framework, then we can work towards establishing our own independent Polytechnic pedagogy, which may be an institutionally and regionally contextualized version of PBL / SCL.

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## References

- Bahrain Economic Development Board (2011). *Economic Vision 2030*. Retrieved 20 February, 2013 from <http://www.bahrainedb.com/economic-vision.aspx>
- Bahrain Polytechnic (2013) *Vision and Mission*. Retrieved 20 February, 2013 from <http://www.polytechnic.bh/vision-and-mission>
- Barrett, T., & Moore, S. (2011). An Introduction to Problem-based Learning. In Barrett, T. & Moore S. (Eds.). *New Approaches to Problem-based Learning: Revitalising Your Practice in Higher Education* (pp. 3-17). New York: Routledge.
- Bordieu, P., *Outline of A Theory Of Practice* (1973). Cambridge; Cambridge University Press.
- Bong, S. (2002). Foreword. In Wee, K. N. L. & Kek, Y. C. M. *Authentic Problem-based Learning: Rewriting Business Education* (pp. ix-x). Singapore: Prentice Hall.
- Coutts, C; Huijser, H and Almulla, H (2011). *A Project Management Approach to Sustainable Curriculum Design Implementation at Bahrain Polytechnic*. Bahrain: Bahrain Polytechnic.
- Chalmers, D., Lee, K. and Walker, B. (2008) *International and national indicators and outcomes of quality teaching and learning currently in use*. Sydney, NSW: Australian Department of Education Employment and Workplace Relations.
- D'Andrea V.-M. and Gosling, D. (2005) *Improving Teaching and Learning in Higher Education: a whole institution approach*. London: McGraw Hill.
- Kennedy, A. (2005) Models of Continuing Professional Development: A framework for Analysis. *Journal of In-service Education*, 31,( 2.), 235-250.
- McGirr, O. *Don't Dispel PBL*. The Third Annual And Learning Teaching Syposium, Bahrain Polytechnic. July 8 – 12, 2012.
- Parsons, D; Hill,I;Hollan, J and Wills, D.(2012) *Impact of Teaching Development Programmes on Higher Education*.York: The Higher Education Academy.
- Postareff, L. (2007) *Teaching in Higher Education from Content-focused to Learning focused Approaches to Teaching*. Research Report 214. Helsinki: University of Helsinki, Department of Education.
- Postareff, L., Lindblom-Ylänne, S. and Nevgi, A. (2007) The effect of pedagogical training on teaching in higher education. *Teaching and Teacher Education*. 23 (5), 557-571.

- Postareff, L., Lindblom-Ylänne, S. and Nevgi, A. (2008) A follow-up study of the effect of pedagogical training on teaching in higher education. *Higher Education: The International Journal of Higher Education and Educational Planning*. 56 (1), 29-43.
- Prosser, M. and Trigwell, K. (1998) *Understanding Learning and Teaching: The Experience in Higher Education*. Milton Keynes: Open University Press.
- Stes, A., Clement, M. and Van Petegem, P. (2007) The Effectiveness of a Faculty Training Programme: Long-term and institutional impact. *International Journal for Academic Development*. 12 (2), 99-109.
- Stes, A., Min-Leliveld, M., Gijbels, D. and Van Petegem, P. (2010a) The impact of instructional development in higher education: The state-of-the-art of the research. *Educational Research Review*. 5 (1), 25-49.
- Stes, A., Coertjens, L. and Van Petegem, P. (2010b) Instructional development for teachers in higher education: impact on teaching approach. *Higher Education*. 60 (2), 187-204.
- Wenger, E. (1998) *Communities of Practice*. Cambridge: Cambridge University Press

## **Appendix One**

### **Bahrain Polytechnic Staff Questionnaire May June 2012**

Please answer the following questions as fully as possible.

Q1: How would you define PBL in relation to the Polytechnic?

Q2: In your opinion, what are the challenges of implementing PBL in your course / programme?

Q3: In your opinion, what are the challenges of PBL in the Polytechnic context?