Operationalising recognition of prior learning (RPL): a case study from Bahrain Polytechnic

Rodney Coombridge

Shaima Alansari

Bahrain Polytechnic, Bahrain

Abstract

This case study describes how Bahrain Polytechnic maintains academic quality while responding to students' expectations that prior learning will be recognized in a competitive market. Although recognising prior learning is important for enhancing the student experience, Higher Education Institutions (HEI's) need confidence in the quality of transferring students prior learning. Bahrain Polytechnic differs from other HEI's in the Kingdom of Bahrain in that it delivers applied, professional and technical qualifications. Graduates are expected to be work-ready; confident and competent, aware of what is expected of them in the professional world, and able to perform to their full potential (Bahrain Polytechnic, 2017). Programmes, qualifications and courses, and the underlying methodology of how they are delivered are developed in consultation with businesses, industries, professions, international education and training institutions to ensure that Bahrain Polytechnic graduates meet the needs of the labour market, thus supplying Bahrain's economy with a source of highly skilled graduates. This enforces the use of a unique teaching and learning philosophy represented in Problem-based Learning (PBL) (Bahrain Polytechnic, 2017). Therefore, Bahrain Polytechnic needs to be very cautious when assessing any RPL application. This paper identifies student mobility and internationalization as important and legitimate issues for both individual institutions and for educational quality assurance bodies. It then focuses on the Bahrain Polytechnic's approach in acknowledging students prior learning through formal education. Following significant internal consultation, Bahrain Polytechnic has developed a more robust process for awarding credits/ exemptions to students based on formal education in other approved HEI's.

Introduction

Higher Education globally has been experiencing 'interesting times' for the past few decades. As Bridges (2000) notes:

[I] observe the radically changing nature of Higher Education in the UK in the last 20 years of the 20th century...almost every one of the boundaries which gave definition to a university and to students' experience of it, have been removed. P.38

This changing nature is also echoed by Sappey (2005), who identifies four key drivers of structural change to Higher Education within an Australian context: marketisation/competitiveness; changes to consumption patterns; commodification of education; and managerialism. This paper will explore the impact of these drivers in a Bahrain context as they relate to the recognition of prior learning, and will present, as a case study, the work of Bahrain Polytechnic in developing an approach which recognises students' prior learning.

In the current climate, the higher education field can be considered a market for many key players. Students have become consumers; and HEI's, as producers, have become more focused on serving the wants of their student customers (Sappey, 2005). 21st-century learners enter Higher Educational Institutions (HEI's) from a diversity of backgrounds. No longer does an HEI receive students solely from secondary schooling system, but rather their learners are coming from the workplace, from other institutions, from other fields of study and, in an increasingly globalized environment, from other

educational systems. Students therefore have increased expectations that their prior learning experience will receive recognition in their pursuit of post-secondary education.

Throughout their academic life, students may have attended multiple institutions before graduating. Although the pursuit of self-interest may suggest that students could be driven to enroll in programmes which deliver the best quality of education for the least amount of time spent studying, McCormick (2003) suggests there may be multiple reason for students to move from provider to provider. In an environment of educational portability (which will be discussed later in this paper), students are likely to see RPL as a means to lessen the time spent, and thus the cost, in obtaining a qualification. By implication, in a competitive environment, they are therefore likely to favour institutions with generous RPL practices. This is perhaps an even more important consideration in an era of high private financial cost to higher education. Furthermore, in an era of competition between education providers, students may be more willing to change qualifications and/or HEI's part way through their study as institutions compete for enrolments. Therefore, there can be pressure from potential students on HEI's to develop systems and processes to evaluate all prior learning so that the total student experience is optimized for each individual. This pressure may explain why, in recent years, many higher education institutions in China (Li, 2015) and Europe (Teichler, 2003) have worked to improve the internationalization aspect within their educational systems by attracting students from different countries to study there. One means of doing so is by developing a solid credit recognition system. Much research has been conducted in this area, with the main focus tending to be on barriers, issues, and international best practices (Li, 2015).

Literature review

To better understand how RPL works and its implication on the learners' study, it is important to summarize the different types of learning for any learner. Garnett and Cavaye (2015) offer three types of relevant learning which may be acquired prior to entering a programme of study. The first type is that learning which is acquired formally through a recognized programme of study at an appropriate institution; the second type of learning is that which comes from experience; while the third type comes from learning which is planned and purposeful, for example workshops and seminars, but which is not part of a certified qualification. It is crucial to note that the recognition of learning acquired through formal study is only one subset of the larger recognition of prior learning (RPL) and many educational quality assurance bodies, including Bahrain's Education and Training Quality Authority (BQA) recognize all three types of learning.

The application of RPL differs from one educational system to another. Some of them offer generous RPL, while others are more cautious in their practice. Osman (2004) calls for the widest possible application of RPL through what she identifies as three typologies of RPL. Her "credit exchange" view of RPL is another way of expressing credit transfer and accumulation (which will be discussed later in this chapter). In her view, this "Transactional" approach works well for those who have been able to access formal higher education and have a clear idea of their academic journey. However, those who have been disadvantaged and have been unable to access such education, may nevertheless, have relevant prior learning applicable to further study. Therefore, she sees that RPL can also be viewed through a developmental lens, as a process which respects and validates prior experiences as they relate to academic knowledge. This developmental typology approaches RPL as a vehicle to improve access to higher education. Her third typology, Transformational RPL, sees all prior learning as having value in its own right, and does not require validation by existing bodies of knowledge. This somewhat radical perspective sees prior experience as a means to challenge the legitimization of accepted knowledge and to effect significant societal or intellectual change. Although the work of Osman provides for interesting discussion, this paper will focus predominately on the transactional nature of RPL within the context of credit accumulation and transfer.

On an international level, Souto-Otero (2013), noted that educational frameworks which combine modularisation of learning with a credit-based measurement system, are well suited to facilitate the recognition of prior learning. Such frameworks allow students to accumulate, and transfer credits of learning, hence they are often referred to as Credit Accumulation and Transfer Scheme (CATS). McCormic (2003) identifies three compelling advantages offered to students by such portability; 1) ability to change institutions while maintaining academic progress, 2) taking advantage of learning offered elsewhere without the need to change their HEI, 3) consolidating learning from multiple sources in order to obtain a qualification. The Bologna Process, established in the late 1990's, establishes such a framework for most of Europe.

Although a CATS environment can seem attractive from a student perspective, from an HEI point of view the process by which recognition and validation of prior learning in Higher Education can often be difficult and littered with minefields. This difficulty is especially pronounced when institutions have neither contributed to, nor exercised control over, the shaping of this learning. Institutions naturally wish to protect their reputation and may therefore be reluctant to consider learning achieved elsewhere. This may be particularly true when there is limited assurance of the quality of teaching/learning at the other institution. Therefore, institutions have an incentive to develop specific policies and procedures to guide them in the recognition of prior learning.

A qualifications framework for Bahrain, the NQF, is a relatively recent, yet vital addition to the wider package of educational reforms in the Kingdom. With the introduction of this framework, Bahrain is moving towards a CATS environment for its Higher Education sector. The framework has been developed under the auspices of the Education and Training Quality Authority (BQA), which was first established in 2008. The project to design the NQF, which began in 2010, was completed in November 2011. Pilot-testing of the framework commenced in 2013, and the first qualifications were placed (approved) in February 2016. The NQF is a hierarchy of 10 levels of learning whose purpose is to "integrate and co-ordinate nation qualifications sub-systems and improves quality, transparency, access, and progression" (Education and Training Quality Authority, n.d.)

Research methodology

This research paper is founded on case-study methodology in that it provides "a unique example of real people in real situations, enabling readers to understand ideas more clearly than simply by presenting them with abstract theories or principles...case studies can penetrate situations in ways that are not always susceptible to numerical analysis" (Cohen et al., 2007, p.253). However, case studies are not designed to uncover universal theories that apply in all cases as they are heavily context-bound. Therefore, it is up to the reader to decide the extent to which a case study is applicable to their own situation.

The methodology has a qualitative focus, where data were collected through both primary and secondary research. The primary research was conducted through three different tools. Firstly, semi-structured interviews with key staff at Bahrain Polytechnic took place over a two-week period in mid-2016. Interviewees were selected by the researchers on the basis of their involvement with administering the credit recognition process. The positions covered included Deans of Faculty, Heads of Schools, Programme Managers, and Student Registry staff. Interviews were semi-structured in nature, with all participants made aware in advance of the purpose of the interview. In addition, the Head of Registry in one of the national Universities at Bahrain was interviewed in order to gain insight into the RPL practices at another institution. Below is a sample of questions asked during the interview. These questions lead to follow-up questions.

1	Have you been through the whole Credit Recognition Policy?
2	What does the existing Credit Recognition Policy lack?
3	Are the different cases presented in the policy clear to the reader? (ie. Credit recognition, exemption, credit transfer, unspecified credits, etc..)
4	How clear is the procedures and the forms attached to this policy? Do they need any amendments based on the different cases and scenarios you faced over the past few years?
5	How aware are the students and academic staff of this policy and its procedures?
6	How prepared are the assessors to make judgments on any CR application?
7	Does CR depend on the currency of the subject of is it content based?

Following the interviews, a focus group for key stakeholders was held in order to share the preliminary outcomes from the interviewing stage, and also to allow discussion on some of the more contentious issues which had been identified. Finally, recommendations for policy changes were sent via email to all staff as a final stage of the institution-wide consultation process.

Secondary research was built on document analysis and review of appropriate literature along with analysis of international practices as outlined on publicly available websites.

Findings

As outlined in the introduction, learning encompasses knowledge, skills and competencies acquired in a planned or unplanned manner through life, especially at work (Garnett et al. 2004). Recognition of prior learning can apply to both certified and uncertified learning and it can be achieved in at least three ways; formal education, informal mechanisms such as skills acquired through work experience, and non-formal activities such as attending workshops and seminars. This section lays out the environment in which the Bahrain Polytechnic operates, and then covers the decisions made by the Bahrain Polytechnic in developing credible policies and procedures to recognize prior learning which meet the needs and expectations of students, the institution itself, and the various national regulatory bodies.

Bahrain Polytechnic's operating environment

Bahrain Polytechnic, along with other Higher Education Institutions in the Kingdom of Bahrain, is constrained to recognizing prior learning which has been achieved through formal study only, and which has been awarded by approved HEI's. The regulations and standards set by the country's regulatory body, the Higher Education Council (HEC) which cover transferring students, do not currently provide for the recognition of any other type of prior learning. However, the principles for the National Qualifications Framework (NQF) as adopted by the quality assurance body, the Education & Training Quality Authority (BQA) clearly outline the case for the recognition of prior learning from non-formal sources. The BQA have issued 10 general policies to guide the NQF, with Policy 6 covering the promotion of life-long learning. The policy aim is given as "Promoting the concept of Lifelong Learning which aims to recognise prior learning, and to further enhance progression pathways between education and training sectors". It has three main purposes, one of which is "To promote the value of prior learning achievement as being on equal terms with formal learning. " (Education and Training Quality Authority, n.d.)

In order to discuss credit recognition within the Polytechnic context, it is helpful to identify some of the key terms that are used. The prior learning for which a student is seeking credit is referred to as the source qualification, which is gained at an appropriate source institution. The Polytechnic programme for which credit is being sought is referred to as the Target Qualification.

As a new and unique HEI within Bahrain, the Polytechnic developed a Credit Recognition policy as part of its initial policy framework in 2008. Following the first “full cycle” of student progression (from enrolment to graduation), this policy was reviewed in consultation with key internal stakeholders in response to a growing sense among academic managers that the original policy was no longer fit for purpose. During the interview process with these stakeholders, a number of issues and gaps were identified:

1. There was no guidance on the minimum grade awarded by the source institution which should be accepted for the awarding credits. HEC regulation stated that; credit should not be awarded to subjects in which student attained a grade less than “C” []. However, the “C grade” is recognized as a pass grade within the Bahrain Polytechnic grading system, while other HEI’s may use a different passing grade, for example a “D grade” in some cases;
2. There was no minimum or maximum limit stated in the policy for the number of credits awarded to students, although HEC regulation was clear that the number of transferred credit hours should not be more than 66% (two third of the number of credit hours) of the requirements of the source qualification to recognize not more than 50% of the requirements of the target qualification[1];
3. No clear procedure for granting exemption from Polytechnic courses;
4. The policy document was not clear about the use of unspecified credits;
5. Credit Recognition for National Requirement courses was not articulated;
6. Lack of the expected standards of evidence and information provided by students regarding their prior learning;
7. The timeline for credit recognition applications was not specified resulting in students continuously submitting applications throughout their programme of study
8. The Policy lacked clarity regarding credit recognition granted for students re-enrolling following a period of absence from the Polytechnic.

The recommendations to closing some of these gaps will be presented further in this paper.

Underpinning philosophy

Following this consultation, the Polytechnic’s curriculum development unit, which is tasked with assuring the academic quality of the institution, embarked on a project to review and re-write the institutional policy and procedures in order to ensure its fitness for purpose. The core philosophy underpinning this redevelopment was the commitment to preserving the use of evidence-based judgements when making assessments of student’s prior learning. In practical terms, this would mean that decisions on RPL at the Polytechnic should be made using professional judgment and be supported by evidence provided by the student. When exercising professional judgment, those tasked with undertaking the assessment would be required to consider six key areas before making a recommendation for either approving or declining a student’s application:

1. the currency of the prior learning,
2. level of learning achieved (as articulated by the National Qualifications Framework of Bahrain),

3. alignment of learning outcomes,
4. content coverage,
5. assessment profiles,
6. teaching and learning methods

While many of these considerations are likely to be found in most reputable HEI's, it is important to highlight the significance of item 6, Teaching and Learning methods. Teaching and learning methods need to be important factors while assessing RPL applications as the Polytechnic is unique among Bahrain HEI's in that it applies a Problem Based Learning (PBL) model. This model is applied to all programmes in order to develop work-ready graduates who embrace life-long learning and who are equipped with the necessary 21st century employability skills. This model also supports the Polytechnic's Strategic Goal 3: Assurance of Learning, as research by Kek and Huijser (2011) identifies "PBL as a particularly powerful pedagogy and teaching and learning approach to promote and develop critical thinking (one of the transferable employability skills) amongst students, while they simultaneously acquire domain-specific knowledge or content" (p. 330)

Figure 1 – Bahrain Polytechnic Problem Based Learning Model (Coutts, 2012, p. 7)

The model, shown in Figure 1, provides an insight on how PBL is being implemented at Bahrain Polytechnic. It allows sufficient flexibility for programme-specific PBL models to be adopted by programme teams which would best suit them (Coutts et al., 2012). The model articulates that during the first years of study (e.g. year 1 and 2) in which mainly courses at NQF level six and below are being taught, traditional teaching methods are being used along with some guided problem solving. This approach is likely to be similar to the teaching and learning methods implemented in other HEI's; therefore, credit recognition applications for courses at these levels are more likely to be approved, subject to other conditions being filled. However, as students progress along their learning pathway,

the model shows that higher level courses (mostly at NQF level 7 and 8) are being delivered with more independent problem solving, using one of the four PBL models presented. Within Bahrain, this teaching and learning model is unique to the Polytechnic, therefore the institution feels justified in applying a more stringent approach to approving RPL applications for its higher NQF level courses.

Process of RPL assessment and approval

Academic staff making credit recognition decisions are expected to have expert knowledge in both the subject area and the National Qualifications Framework (NQF). The Polytechnic has developed internal training to ensure staff are familiar with the policy requirements and are suitably competent to undertake assessment of prior learning. In cases of uncertainty, additional evidence of prior learning might be needed such as: interview, challenge test or observation. Such assessment ensures that fair, valid, reliable, and consistent decisions are made in determining equivalence of courses.

However, the final decision does not rely on the recommendation of one person (the assessor). In practice, the Polytechnic considers the granting of RPL as having the same significance as the approval of a final grade. Therefore, a robust assessment and approval process is followed for each RPL application – refer to Figure (2). Thus, outcomes of RPL applications are further reviewed and then ratified through a committee process for quality assurance purposes.

Figure 2 – RPL Process (Bahrain Polytechnic, 2017)

Situation-specific RPL Policies

This next section will consider the approach and rationale for four specific aspects of the Polytechnic's PRL framework; 1) the maximum number of credits permitted, 2) the re-admission of previously enrolled students, 3) transfer students, 4) the outcomes of an RPL application.

Maximum permitted credits

As identified earlier in this paper, stakeholder consultation indicated a number of gaps in the existing credit recognition policy and therefore established a requirement for clear policy statements specific to the Polytechnic. One such gap relates to clear policy guidance on the maximum number of credits permitted to be awarded by way of RPL. To respond to this desire, the Polytechnic is proposing that up to 50% of a qualification to be awarded by way of credit recognition, which is similar to the current HEC regulation [1]. However, to maintain academic quality and the integrity of the Polytechnic qualifications, the re-drafted policy proposes two specific restrictions: 1) no credit can be awarded for NQF level 8 courses, and 2) a maximum of 30 credits only can be awarded at NQF level 7.

The rationale for reduced credit recognition at higher levels of learning rests on two main footings. The first footing, which has already been introduced, is founded on the unique PBL model of teaching and learning adopted by the Polytechnic. The second footing is grounded on the institutional mission, to “...produce professional and enterprising graduates with the 21st century skills necessary for the needs of the community locally, regionally, and internationally” (Bahrain Polytechnic, n.d.) The development of these 21st century skills in order to produce “work ready graduates” is a key feature of Polytechnic programmes and assessments. Although not every course will focus on every skill, the suite of courses which makes up a programme, particularly those at the higher levels, will ensure that all graduates will exhibit proficiency in the eight identifiable skills which make up the Polytechnic’s employability framework. These skills are identified in the framework as Life-long Learning, Communication, Problem Solving, Teamwork, Technology, Initiative and Enterprise, Self-management, Planning and Organisation. Therefore, placing a limit on the number of credits awarded at higher levels will ensure that transferring students will also achieve “work readiness” by the time of their graduation.

Readmitted Polytechnic students

A further significant gap was the lack of guidance on the status of learning achieved prior to a student’s exclusion by the institution. In a Polytechnic context, students may be excluded from study by the institution on either academic or behavioral grounds. Students who have been excluded have the ability to re-apply for admission after a period of two years should they wish to do so; however, the current policy of the Polytechnic is to treat a re-admitted student as a new admission. The interviews with Programme Managers showed wide ranging views on how learning achieved prior to exclusion should be treated upon readmission.

A workable solution was found by considering Bahrain Polytechnic’s strategic goal number 2, Graduate Reputation. Therefore, in order to protect the reputation of all graduates, the proposal is for Bahrain Polytechnic to apply special rules for students who are readmitted to the institution following a period of exclusion. No credit recognition for prior learning at the Polytechnic will be permitted for readmitted students. However, previous courses will remain on the academic transcript as evidence of all earlier enrolments. Any credits or grades earned from these previous courses will not be transferred to the readmitted programme. By taking this position, the academic leadership of the Polytechnic see that this non-recognition of prior learning can also be of benefit to students as it allows them to start again with a “clean slate”. As the majority of exclusions are on the basis of unsatisfactory academic progress, poor grades from their earlier enrolment do not weigh-down the student when they re-start their study. The expectation is that such students have returned with a much improved and re-invigorated approach to their learning, resulting in better grades the second time through.

The non-recognition of prior learning is also supported by literature. Hargreaves, (2006) highlighted the fact that “RPL is not always considered to be the best option, even when the person is eligible. Both learners and employees have reasons for not undertaking RPL in all circumstances”. The author elaborated that “many people, including members of recognized equity groups, prefer to participate

in training program for the learning experience and social interaction with peers, even when eligible for recognition of prior learning. The benefits to be gained through the training program are perceived to be greater than those to be gained from undertaking RPL". Furthermore, Bowman et al., (2003), in a paper commissioned by The Australian National Training Authority, indicated that "some students choose to not apply for RPL, even when eligible, because they have preference for the training itself and the experience of learning through interacting with fellow students". The PBL environment at the Polytechnic encourages peer learning and significant interaction between students.

Students may also choose to return to the Polytechnic following a period of absence where they have voluntarily withdrawn from their studies. This may be for a variety of reasons, including health, family, career. For these students who are returning to the Polytechnic after a period of withdrawal, as opposed to a period of exclusion, from study, a credit recognition and exemption application can be made to transfer previously completed courses to the readmitted programme. Credit values of these courses may count towards programme completion requirements; however previously earned grades will not be counted towards cumulative GPA. The Polytechnic applies a different standard for these students as the reason for their break from study was due to student choice and not due to exclusion on behavioural or academic grounds.

Transferring students

The HEI environment in Bahrain is somewhat fragmented and competitive. There are currently three government funded institutions, one regional university and 11 private universities. Few regulatory limitations exist for students transferring from one institution to another. Therefore, to maintain academic quality, it is proposed that students be required to state any previous tertiary enrolment at another HEI as part of admission procedures. Any student failing to declare such previous tertiary enrolment at another HEI, at the time of application, may not use this learning for credit recognition. However, students who complete additional study, or enter into approved cross-institutional enrolment after their admission, may apply for credit recognition. This restriction is introduced to address one of the gaps identified during the initial stakeholder consultation referred to earlier in this paper.

In addition, due to the fragmented and competitive environment, students may be transferring to the Polytechnic for a number of reasons. The procedure outlined in the preceding paragraph ensures those who are transferring from another HEI may apply for credit recognition. However, it is proposed that students previously dismissed/ excluded from another HEI will not be eligible for credit recognition for courses passed in the source qualification. The Polytechnic reserves the right to seek further information from other institutions regarding the status of transferring students. Again, this policy restriction is applied to maintain educational quality and ensures that all excluded students from any institution are treated on an equal basis.

RPL outcomes

If recognition of prior learning is approved, there are two possible outcomes for the student: either they are exempted from the equivalent Polytechnic course, in which case they are not awarded credits, or they are given both an exemption and are awarded the credit value of the equivalent Polytechnic course. If students are awarded an exemption only, they are still required to achieve credits at the right level, and in totality, in order to meet graduation requirements, while the second outcome has the effect of either lightening the study load for one (or more) semesters, or of reducing the total amount of time required to complete the programme of study. It is important to note that, for either outcome, there is no effect on a student's GPA.

The Polytechnic also recognizes that a transferring student may have undertaken prior study for which there is no directly corresponding course offered by the Polytechnic. However, such learning may be

relevant to the student's programme of study. In such cases, provided the Polytechnic is satisfied about the quality of the learning, the student may be awarded unspecified credit towards the target qualification. The credit is unspecified in terms of its title, but is defined in terms of level (on the NQF) and credit value (in multiples of five). This outcome allows students to be able to apply a wider range of prior learning towards their Polytechnic qualification.

Conclusions

For one institution to recognize the learning achieved by students transferring from another – there must be an overall confidence in the quality of that learning. Regulatory and Quality Assurance bodies, both nationally and globally, have a clear role to play in contributing to this confidence. A qualifications framework which allows for credit accumulation and transfer has recently been introduced in Bahrain.

However, experiential learning, which has been recognised by many QA and regulatory bodies, for example in Australia, New Zealand and the UK (Garnett and Cavaye 2015,) as valid prior learning for Higher Education, has yet to be approved in Bahrain. Institutions with a focus on applied learning, such as the Polytechnic, have a desire to recognize appropriate prior work or other life learning experiences as both non-formal and informal learning should be recognized as a means to broaden educational opportunities across a wider section of society. However, although the Bahrain quality assurance framework recognizes the importance of all types of prior learning, the over-arching regulations have not yet developed in the same direction. Students and institutions cannot afford to wait until this gap is closed and therefore workable institutional policies and procedures need to be developed. The case study of the Bahrain Polytechnic shows the response of one institution to operationalizing RPL.

Notes

1: Article 14 of HEC resolution No.2 2007

References

- Bahrain Polytechnic (n.d.). *Our Story- About Bahrain Polytechnic*. Retrieved 25 January 2017 from <http://www.polytechnic.bh/about-us/our-story/>
- Bahrain Polytechnic (2017). *Credit Recognition and Exemption Policy*. Manama.
- Bahrain Qualifications Authority (n.d.). *General Directorate of Qualifications - The National Qualifications Framework*. Retrieved 25 January 2017 from <http://www.bqa.gov.bh/En/QaaetUnits/NQFU/Pages/NQF.aspx>
- Bowman, K., Australian National Training Authority, National Centre for Vocational Education Research (Australia) (2003). *Recognition of prior learning in the vocational education and training sector*. Adelaide, S. Aust: NCVER.
- Bridges, D. (2000). Back to the future: The higher education curriculum in the 21st century. *Cambridge Journal of Education* 30: 37–55.
- Cohen, L., Manion, L., Morrison, K. (2007). *Research Methods in Education*. 6th ed. Abingdon: Routledge.
- Coutts, C., Huijser, H., Almulla, H. (2012). A project management approach to sustainable PBL curriculum design implementation at Bahrain Polytechnic. Presentation given at the *3rd International PBL Symposium: PBL and the Problematisation of Teaching and Learning*. March 7-9 2012, Republic Polytechnic, Singapore. pp. 7–9.

- Garnett, J., Cavaye, A. (2015). Recognition of prior learning: opportunities and challenges for higher education. *Journal of Work-Applied Management* 7: 28–37. doi:10.1108/JWAM-10-2015-001
- Garnett, J., Portwood, D., Costley, C., University Vocational Awards Council (Great Britain). (2004). *Bridging rhetoric and reality: Accreditation of Prior Experiential Learning (APEL) in the UK : a report*. Bolton: University Vocational Awards Council.
- Hargreaves, J., National Centre for Vocational Education Research (Australia). (2006). *Recognition of prior learning: at a glance*. South Adelaide, S. Aust: NCVER.
- Junor, S., Usher, A. (2008). *Student Mobility & Credit Transfer: A National and Global Survey*. Retrieved 25 January 2017 from <https://eric.ed.gov/?id=ED529950>
- Kek, M.Y.C.A., Huijser, H. (2011). The power of problem-based learning in developing critical thinking skills: preparing students for tomorrow's digital futures in today's classrooms. *Higher Education Research & Development* 30: 329–341. doi:10.1080/07294360.2010.501074
- Li, F. (2015). Developing a credit recognition system for Chinese higher education institutions. *Journal of Higher Education Policy and Management* 37: 424–431. doi:10.1080/1360080X.2015.1056600
- McCormick, A.C. (2003). *Swirling and double-dipping: New patterns of student attendance and their implications for higher education*. New Directions for Higher Education 2003, 13–24.
- Osman, R. (2004). Access, Equity and Justice Three Perspectives on Recognition of Prior Learning (RPL) in Higher Education. *Perspectives in Education* 22: 139–145.
- Sappey, J. (2005). The commodification of higher education: flexible delivery and its implications for the academic labour process. Presentation given at the *Reworking Work-AIRAANZ 19th Conference*. Eds M. Baird, R. Cooper & M. Westcott, The Association of Industrial Relations Academics of Australia and New Zealand. Sydney. pp. 495-502.
- Souto-Otero, M. (2013). *Review of credit accumulation and transfer policy and practice in UK higher education*. York: Higher Education Academy.
- Teichler, U. (2003). Mutual Recognition and Credit Transfer in Europe: Experiences and Problems. *Journal of Studies in International Education* 7: 312–341. doi:10.1177/1028315303257118