You Measure What You Value: How a Middle Eastern Polytechnic Developed a Sustainable Review and Improvement Framework

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Abstract

Bahrain Polytechnic (BP) was established in 2008 to fill a gap in the Kingdom's labour market for work ready graduates. Around that time newspaper reports highlighted a lack of quality and consistency in some private universities in Bahrain. Bahrain's Qualifications and Quality Assurance Authority was in development so, in the absence of national guidelines, BP developed its own Quality Assurance Model to gain stakeholder confidence in the quality of its education. This comprised a Quality Management System with policies and procedures, and a self review loop.

The government was quick to redress quality concerns threatening the reputation of Higher Education in the Kingdom and today there are many external auditing agencies, each with their own paradigms and criteria. However, evidence that accountability audits produce quality improvement where it matters most - in the classroom - is lacking. An essential element in this failure is the dissolution of trust. This case-study tells of BP's journey towards a more efficient and effective Self Review model that shifts the focus from accountability and control to improvement and sustainability by taking into account Bahrain's cultural context and the Polytechnic's unique curricula and building on existing relationships to engender trust and commitment.

Key words: Quality; Review; Audit; Higher Education; Continuous Improvement; Sustainability

Introduction

The depletion of oil resources and an increasingly competitive global trading environment drive economic reform in Bahrain. Bahrain Polytechnic (BP) is a key reform initiative established to fill the gap in the labour market for skilled Bahraini technicians and applied professionals (Polytechnics International New Zealand (PINZ), 2007). In Bahrain 80% of school graduates progress to Higher Education (HE), though many fail to find employment (Torr, 2011). Middle Eastern education systems do not produce what the markets need and the markets are not sufficiently developed to absorb the educated labour force the World Bank (2008) suggests, arguing that quality of delivery is responsible for this "weak" relationship between education and economic growth. Consequently, both unemployment and underemployment are key concerns in the Gulf. (Donn & Al Manthri, 2010).

Lack of quality in Bahrain's HE sector was an issue[19] at the time BP opened in 2008. Back then the national quality assurance system was in development and a qualifications framework was just being considered. In the absence of national guidelines, the Polytechnic developed its own model for quality assurance in order to gain stakeholder confidence in the quality of

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[19] Some universities in the GCC refused to acknowledge qualifications awarded by private universities in Bahrain on the grounds that they did not meet international academic standards: Bahrain News Agency, 10 February 2008 (english.bna.bh/?ID=66842)

its education. This comprised a Quality Management System, with policies and procedures, and a review and audit cycle, incorporating an Annual Programme Review system (APR).

The government was quick to respond, establishing the Quality Assurance Authority for Education and Training in 2008, extending its role in 2012 to include management of the Kingdom's Qualifications Framework. Providers wishing to lodge their qualifications on the framework must submit to a compliance review of their Quality Management System, in addition to the institutional and programme reviews overseen by that authority. Adapting the European Foundation of Quality Management model for Performance Excellence, Bahrain Centre for Excellence seeks effectiveness in the public sector.

So today there are many agencies tasked with auditing HE Institutions in the Kingdom, each with its own paradigm and accountabilities. The Polytechnic has been subjected to more than a dozen audits and reviews since it opened, leading to a questioning of their value. An evaluation of these found little time between panel visits to work on the opportunities for improvement identified or to consolidate good practice. Consequently findings were duplicated and, stretched by the demands of establishing a new institution, staff were concerned that their energies were being diverted to establishing compliance, away from improving students' learning experiences.

With the aim of allowing others to learn from BP's experience, this case-study tells of the journey towards a more efficient and effective review model that shifts the focus from accountability and control to improvement and sustainability. The background section that follows provides a context to facilitate a greater understanding of the challenges facing this new institution.

Background

BP opened with around 200 foundation level students, but today boasts almost 2000 studying towards qualifications at a range of levels. Underpinned by values of "Excellence", "Learning" and "Innovation", BP's vision is to become a "world class provider of applied higher education" and its mission is to produce "professional and enterprising graduates with the 21st Century skills necessary for the needs of the community locally, regionally and internationally," (Bahrain Polytechnic, 2003). Judgments about whether BP is providing quality education and delivering on its mission are made by audit agencies as well as employers. At BP industry is strongly linked through the activities of Curriculum Advisory Committees to changes in the labour market (Coutts & Leder, 2010).

Curriculum at Bahrain Polytechnic

Adult education quality rests on its "relevance" to learners and its "effectiveness" within the local environmental context (United Nations Educational, Scientific and Cultural Organization, 2009).

Figure 1: BP's Curriculum Staircase: A Model that Integrates Employability
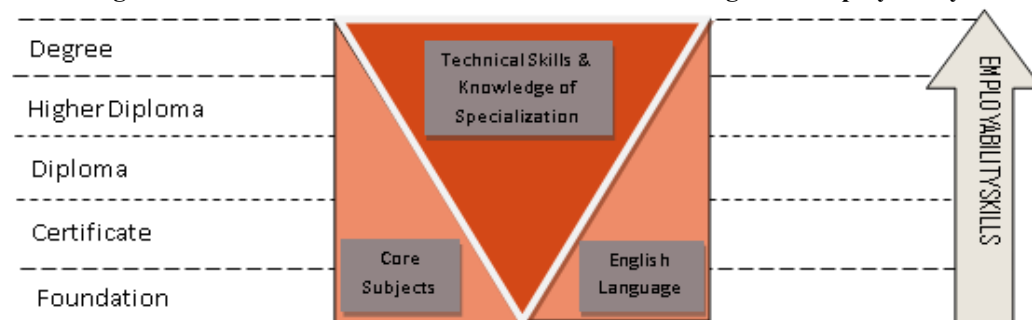
Whilst the British Council (2013) suggests MENA countries learn from others in establishing a quality HE sector to support economic growth, much has also been written about the obstacles to curriculum reform in the Middle East (Dakkak, 2011), and the difficulties of applying educational concepts and policies developed in the west to other parts of the world (Billing & Thomas, 2000; Harvey & Williams, 2010).

Aware of best practice, BP first identified industry requirements and the gaps in education provision in order to design its curriculum. This research indicated what programmes were needed by the market place but also found employer dissatisfaction with graduate employability skills. There was a gap between the educational levels of high school graduates and the entry level for tertiary study. These factors determined BP's multi-entry, multi exit curriculum model (Figure 1). Each programme has a graduate profile and each course specifies and assesses the Learning Outcomes students must achieve. Qualifications are based on credit (a measure of academic achievement) and levels (progressive stages of competence,

achievement and complexity) facilitating comparability and transferability.

Utilising a curriculum model recommended by UNESCO and International Labour Organization (2002), the career focused programmes offered by BP aim to produce professional and enterprising work-ready, graduates (Figure 2). This outcome is achieved through Problem Based Learning, with the integration of Employability Skills across the curriculum and the provision of Work Integrated Learning opportunities such as industry experience and cooperative projects (Prendergast, Pringuet, Zahran, & McGirr, 2012). The foundation programme, together with a raft of support services, ensures students develop the skills required for success at tertiary level (Coutts & Dismal, One Side of the Equation, 2013). At degree level, language and learning development continues to be supported and English for Specific Purposes courses are included. Other 'across the board' modifications designed to respond to local needs include an Electives component to encourage students to become active citizens and a mandatory course, *Bahraini Perspectives*, that grounds student learning within a Bahraini context.

Figure 2: Employability Ecology-BP's Applied Learning Curriculum Model
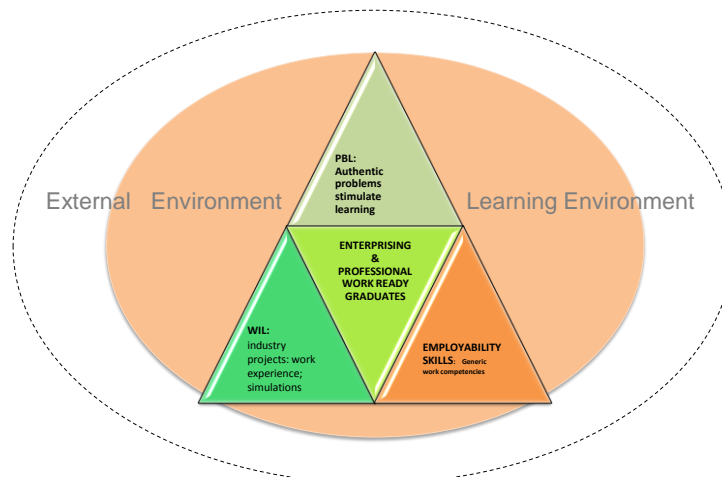
For efficient start-up accredited programmes were purchased from Australasia. Adapting curricula originally designed to meet the circumstances and culture of one country to meet the needs of another is a well documented problem (Dunworth, 2008) and so the purchased programmes were subsequently contextualized with stakeholder input. Curriculum purchase contracts included an annual review and external moderation to give confidence that BP programmes were of at least the same standard as in the original institutions.

APR System: Ensuring Curriculum Relevancy

The performance of Bahrain Polytechnic is determined by how well it meets stakeholders' requirements. The purpose of the review and audit cycle is to evaluate how well the Polytechnic meets these requirements (Figure 3) and it is operationalised by policy (A/QA/002 *Audit, Evaluation and Review).*

The review and audit cycle is both outcome focused and process based, ensuring that all programmes are fit for purpose and meet their stated aims, delivering on the graduate profile developed with industry. This cycle involves an internal review system as well as external audits required by government agencies and reviews by professional bodies for accreditation. The APR system was implemented as the main internal mechanism to draw together the elements necessary to evaluate whether there was need for Curriculum change, notably industry, student and tutor feedback. For several iterations the specialised technical knowledge and skills components closely resembled those from the imported curricula. However, within 18 months significant changes to both qualification structure and teaching content were sought. Analysis of the APRs indicated that by enlarge the requirements for these changes were not clearly evidenced, flagging the need for review of the APR process itself. Simultaneously the Polytechnic was experiencing a large number of audits, driving a compliance culture and diverting staff energies away from improving the classroom experience. These two factors prompted this case-study.

Figure 3: Quality Assurance Model
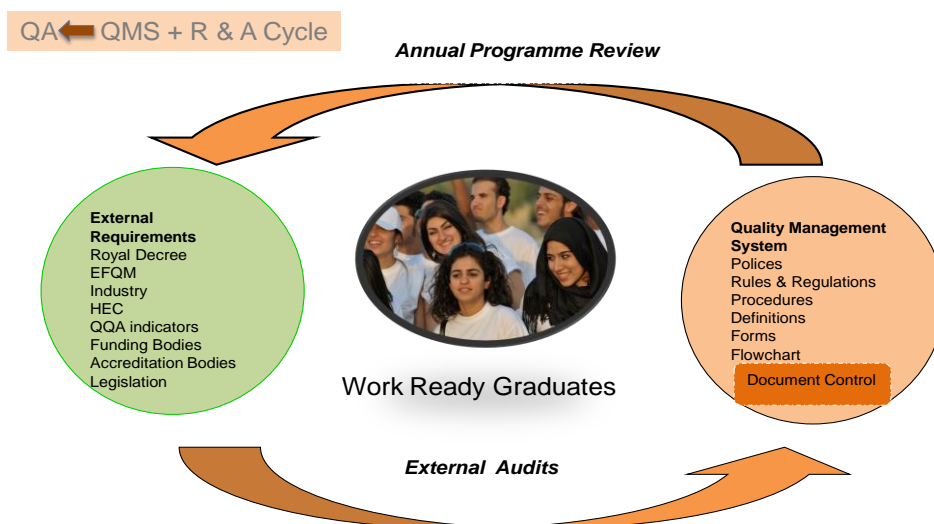
Quality Conundrum: Literature Review

A review of international best practice assisted development of the Polytechnic's Quality Assurance System. The concept of quality has its origins in industry where, in its various forms, it was utilised to increase productivity and competiveness, focusing on product consistency to meet customer requirements (Paunescu & Fok, 2004). However, "product" in education is very different indeed from that in industry, so the application of quality to schools and universities has not been without critique: "Central to the debate about quality in the educational context is the issue of whether concepts derived from the profit-centred private sector can be readily transferred to public service organizations" (Greene, 1994). Applying quality concepts in education is difficult: there are many 'customers,' the 'products' are not easily defined, the outcomes are not easily measured and improvement is challenging to evaluate.

Notwithstanding this, quality principles underpinned the 1970's Effective Schools Movement that resulted in quality programmes being successfully implemented in many schools (Arcaro, 1997). Arcaro maintains that quality provides the structure and techniques necessary to improve all educational processes. Of particular interest is the identification of key attributes associated with effectiveness, those that make a difference for students' learning: a clear mission; instructional leadership; high expectations; monitoring of student progress and the opportunity to learn (Lezotte, 2006).

In contrast to this student-centred focus, the appeal of the quality concept to governments globally has been its utility for monitoring accountability of public expenditure. Higher education institutions have experienced huge pressure to drive economic growth and play a key role in securing global positioning (Stiasny & Gore, 2013). But the MENA region's investment in education has not resulted in the anticipated level of economic growth (World Bank, 2008) and reasons suggested for this relate to educational quality.

Unsurprisingly then, quality is a highly contested concept in education (Tam, 2001), with many definitions (American Society for Quality, 2013). Indeed an analysis of trends in higher education over the last 15 years indicated a change in focus in the way quality is conceptualized from accountability to learner engagement and learning, resulting in a shift from an institutional focus onto programmes (Harvey & Williams, 2010; Harvey & Williams, 2010 b).

This same trend is reflected in Bahrain's experience. The Quality Assurance Authority for Education and Training conducted seven reviews in the academic year 2008/9 and five in 2009/10 (AMEInfo, 2009). Analysis of findings across these early reviews indicated a number of areas requiring improvement across the HE sector, including "the development and implementation of quality assurance mechanisms in the programmes" (Quality Assurance Authority for Education & Training , 2010). This conclusion is congruent with Schools' Effectiveness Research, emphasising the centrality of programme review in quality assurance and quality enhancement (Her Majesty's Inspectorate of Education, 2007; Kiely, 2009). An overview of literature concerning Programme Reviews concluded that the most effective frameworks are flexible, comprehensive, integrated and sustainable, incorporating principles; criteria; process; and evaluation. In considering the value added aspects of programme review the Office for Standards in Educations suggests that it is a difficult and time consuming process (Ofsted, 2006). There is a lack of evidence that external quality audits produce improvement where it matters most, in the classroom, especially when they have a strong accountability brief, Billing

and Thomas argue (2000). They maintain this failure is attributable to the dissolution of trust. In contrast, Harvey and Williams' overview of quality research (2010) suggests that programme review can be very effective when conducted within the bounds of context and purpose, where those teaching the programme are also part of designing and conducting the review. In this conceptualisation, tutors are part of the problem and the solution.

Of particular interest in the Middle Eastern context is the recognition of the importance of relationships in the process of developing a quality culture. People's culture, their beliefs and behavioural norms can contribute to, or block the process of developing and implementing improvements (Kaasa & Vadi, 2010). The Arab Gulf States are characterized by strong family values and consequently trusting relationships and networking are very important in business operations, including the business of managing educational institutions. In the Arab world the deep connections of kin and obligation provide a pervasive foundation for important decisions and information sharing (Rabaai, 2009). This cultural aspect needed to be considered in the APR review to facilitate a sustainable quality improvement process, embedded in the 'way we do things' at Bahrain Polytechnic.

The Way Forward: Research Method

Building on the findings from the literature review, a process was created to develop a Contextualised Programme Review Framework (CPRF). Conducted over several years, this five stage process included three waves of dialogue (engaging stakeholders) and two stages of development, where the initial format of programme review based on a New Zealand model, was shaped and reshaped to achieve an effective and sustainable model relevant to the local environment.

A case study was selected as the most appropriate research design as this approach allows for investigation using a range of evidence available in a specific case setting (Coutts, 2007). "Intrinsic" case studies such as this have in common the aim to seek greater understanding of a particular case in all "its particularity and ordinariness" (Stake, 2000). This research may also be considered as an instrumental‖ case-study, through which the development of greater understanding of a generic phenomenon can occur.

Typical of many case-studies, this investigation did not begin with any a priori theoretical notions (Gillham, 2000) but maintained openness to what emerged before attempting to understand the findings. An eclectic range of data capture methods was utilised, with documentary analysis followed by focus groups and individual interviews to unpack the meaning of emerging findings and to increase their reliability and validity through triangulation. The participants were all the staff involved in the Reviews, including the Quality Manager who, as participant researcher, had gained ethical clearance from BP's Research Committee to conduct this case-study[20].To give weight and central position to the voices of these key informants, what they said is presented as verbatim quotes, recognisable by the use of italics and differentiated from the body of the text by indented blocks of speech or narrative segments placed in quotation marks. In brackets beside the quotes is a unique identifier (ID) that aims to give some degree of anonymity to participants. The ID has a designation that indicates the type of respondents (Tutors [T], Reviewers [R], Challengers [C], Course supervisors/Programme Managers/Deans [PM], Review Facilitator [RF] and the

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[20] Hasan, J. (2014) *In Search of a Programme Review Framework for Bahrain Polytechnic: The Experience of a Bahraini Quality Coordinator.* Preliminary findings towards doctoral dissertation, University of Southern Queensland, Australia.

Quality Manager [QM]) signified by the first letter (s) of the role and a number to differentiate respondents within the same category, if needed.

Figure 4: Research Stages
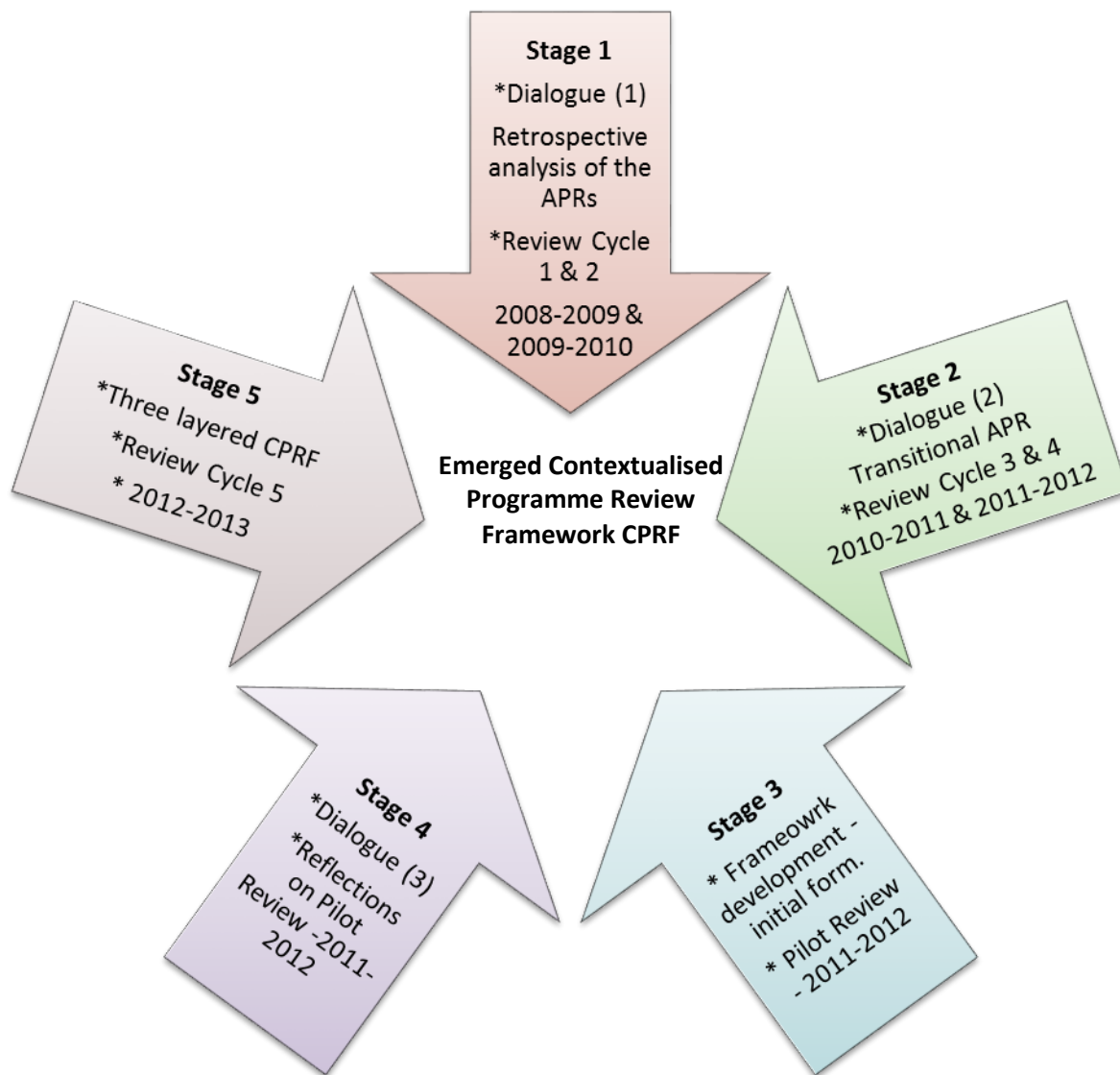
Opportunities for dialogue took the form of workshops, facilitated meetings, interviews and discussion at Academic Quality Assurance Committee (AQAC), which had oversight of the process, and these led to changes in the Programme Review processes over four review cycles (Cycle 5 dialogue yet to be held).

Stage 1: Armed with data from the retrospective analysis of the APRs from Cycles 1 and 2 and feedback from the initial dialogue, a full review of the Programme Review Process was initiated.

Stage 2: In parallel with this review, a Transitional APR was implemented for Review Cycles 3 and 4 (Stage 2), and feedback was gathered once again from stakeholders.

Stage 3: On advice that HERU (QAEET's Higher Education Review Unit) would conduct an audit of the Business Degree utilising four new Programme Review Standards (Figure 5) it was decided to use

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this opportunity to inform the Polytechnic's own programme review process. The review approach, informed by effective review processes found in the literature, built on dialogue with BP staff and incorporated external review indicators. On completion of the Business pilot, another opportunity for dialogue was provided to reflect on the outcomes, particularly on quality improvement planning, as well as on the review process.

Stage 4: Finally a three layered review process was devised, part of which was a new APR template.

Stage 5: Aspects of this new template were run again for all programmes at the end of Review Cycle 5 in academic year 2013-14.

Figure 5: HERU Programme Review Standards[21]
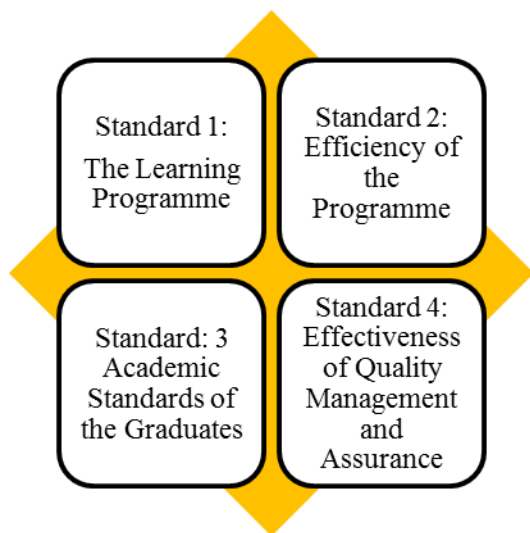
Results

Stage 1: Retrospective Analysis Academic years 2008-2009; 2009-2010

Early Annual Programme Reviews (APRs) were based on a template sourced from New Zealand. This comprised 11 sections (Appendix A). The analysis found some Programme Managers (PM) failed to submit their APRs on time. Many APRs had responses that were descriptive rather than analytical and sometimes did not address the

indicator. Where there were recommendations for improvement, some did not base this on evidence. Several recommendations levelled critique at other Polytechnic departments, suggesting they were to blame for programme deficiencies, but there was no institutional mechanism that facilitated this being passed to the relevant areas for action. The overall quality was variable, with only a few APRs that constituted best practice, these having involved tutors in the process. There was clearly a need for training in how to conduct reviews and write reports.

The template itself did not reflect the unique aspects of the Polytechnic's curriculum model (such as Problem Based Learning) and neither did it comply with BP Policy (A/QA/002 *Audit, Evaluation and Review),* which had as a requirement that a review should ask how satisfied students were with their learning and whether programme outcomes are meeting the needs of industry. When mapped against QAEET indicators the early APR template showed a lack of alignment.

The QM said that "*it was initially difficult to get 'buy-in' to the APR system because of the complexity of the process, and also because quality requirements were new to many staff, especially those who had worked extensively in the Gulf Region.*" Furthermore, significant changes to both qualification structure and teaching content of many programmes were requested at AQAC, yet there was little evidence of the need for these changes apparent in the APRs. These findings suggested the need for review of the APR process itself.

Stage 2 Transitional APR Academic years 2010-2011/2011-2012

The template remained very similar in the transition phase, but how the review was conducted changed. Training needs were identified as part of the dialogue with PMs following the 2009 APR submission, so for the 2010-2011 APR Cycle, members of the Quality Team worked alongside faculties to

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[21] Quality Assurance Authority for Education and Training , 2010.

provide both assistance and peer review before the APRs were submitted to AQAC- this resulted in all but one APR being submitted and a general improvement in quality. However this process was very time consuming with the result that submissions and any required changes to programmes were not made within the Academic Board timeframe.

Feedback on the transition phase APRs in early 2011 were captured by facilitated sessions across all programme areas. Eight themes emerged:

Theme 1   Lack of commitment to the process by faculties

"The process is not led by Faculties. It's seen as a compliance issue rather than an opportunity to improve programmes" [PM1]

Theme 2   lack of a complete framework: Inconsistency in the way review was undertaken across the programmes, which made it difficult to evaluate risk to a programme and to develop appropriate action plans

"The current process is used as a prescriptive tool for review rather than an evaluative tool for improvement"[PM2];

"Absence of a clear process [PM3]

Theme 3   Lack of team work in completing the review process

"When staff attended the facilitated session [with the PM] *this often raised issues of a shared understanding of the actions recorded in the review "*[QM]

Theme 4   Lack   evidence-based decision making

"Statements were often unsupported by data or evidence"[QM]

Theme 5   Lack of Evaluative based review

"Most were descriptive which does not provide an accurate or measurable judgement of the effectiveness of a programme" [QM]

Theme 6   Focus on Improvement

"Issues were identified but in some instances no action was documented to address them....previous years actions were not always reviewed for completion" [QM]

Theme 7   Dissemination of Good Practice

"Most of the focus was on identifying weak areas for improvement rather than strengths" [QM]

Theme 8   Feedback on the facilitated sessions ranged from *"useful and challenging"* to *"what is the point"* [QM]

Consequently small changes were made to the APR template for the next cycle (2011-2012), but mostly the emphasis in the Transition Stage remained on the process. Feedback from a workshop to unpack the learning from the APRs completed in 2011-2012 identified institutional-wide themes for Quality Improvement Plans, including : shortages of staffing; delays with labs and equipment; plagiarism; lack of library resources; shortage of Elective courses; under-performing staff; moderation issues and student support and advising. The addition of Quality Improvement Plans provided opportunity for the first time to monitor progress towards programme improvement through Faculty Board reporting to AQAC and Academic Board. As Academic Board minutes are approved at SMT, this also now provided a forum to engage Corporate Divisions in this quality improvement process.

Stage 3: Piloting another model of self-review based on HERU indicators

Based on feedback from the previous stages a new Programme Review and Improvement Process, was designed, based on the HERU Review Standards (Figure 5), but with the key features identified from effective programme reviews in the literature incorporated as underlying principles: leadership (to ensure commitment across the Polytechnic); Rigour (teamwork, evidence based and evaluation

based processes); and Impact (monitoring to provide quality assurance and continuous improvement). These components were put together for Cycle 4 that saw a continued engagement of key stakeholders to build capacity, ensure internal consistency and develop trust in the process through a better understanding of how APR contributes towards improvement, a real focus in this new process (Figure 6).

The Bachelor of Business, being the largest BP programme, provided opportunity to pilot the programme review and improvement process, with twenty staff participating from across the institution. Each Reviewer was allocated one standard or sub-standard and worked with an interdisciplinary team to locate the evidence for it, reporting how well BP, and the Business Degree specifically, matched HERU's standards. These reports were moderated by a challenge team to ensure consistency. AQAC oversaw the process and set high standards, demanding an evaluative writing style and verifiable evidence: the first indicator was submitted three times before it was finally approved. This rigorous process was very time consuming and, although it developed trusting relationships, providing a safe learning environment for the staff involved, it was not sustainable in a time of staff shortages. As well:

> "The outcome was complex and not useful for reviewing and enhancing the programme....this process was getting out of hand...the staff starting to feel overwhelmed. The process was starting to get a life of its own in that staff were spending a lot of time on it and the amount of data was overwhelming and wasn't being analysed to produce an improvement plan....the aim had been lost" [QM].

Other feedback from a series of interviews held with Review participants showed that for some, there had been a lack of clarity in the indicators and what was required:

"Clarity was an issues at the beginning...you and a colleague might look at the same sub-indicator, and have different evaluations" [R3]. Cultural context was a factor: "Certain terms like assessment have different meanings in different countries. When we sat down and reached a consensus, I was concerned if what we had agreed was what QAA were actually thinking" [R6]. This was a factor in the time it took to do the review: "The fact that it took us 6 weeks to define what they were in Review Indicator 1 means that they weren't clear" [RR]. However this was not the case for all. Insight was given by the more experienced Challengers: "the indicators are clear to me. For the reviewers, they need training to understand the jargon" [C3].

What constituted evidence had been a big issue for the pilot, suggesting the need for ongoing training and support for effective programme reviews, but also indicating the need for adoption of a consistent review framework: "the bigger question was how they unpacked those [indicators]. When we first met it was clear a conceptual; framework had not been provided" [C1]. Some of the review participants assessed the indicators as relevant to the Polytechnic, but others suggested they lacked completeness, arguing: "it needs to be more about practice....we aren't checking what actually happens in the classroom." [RF]. It was felt that the indicators were not appropriate for competency based learning and also that "there isn't enough focus on students' views" [RF]. Likewise there was an inadequate focus on quality of teaching: "one thing that isn't looked at is how you maintain the quality of the people who are teaching". Importantly it was highlighted that "whether we are meeting the strategic objectives in terms of producing work-ready graduates, work ready learning [was] not central to QAA, but they are to BP," suggesting that there was a need for BP to write its own indicators.

Figure 6: Programme Review and Improvement Process – Pilot
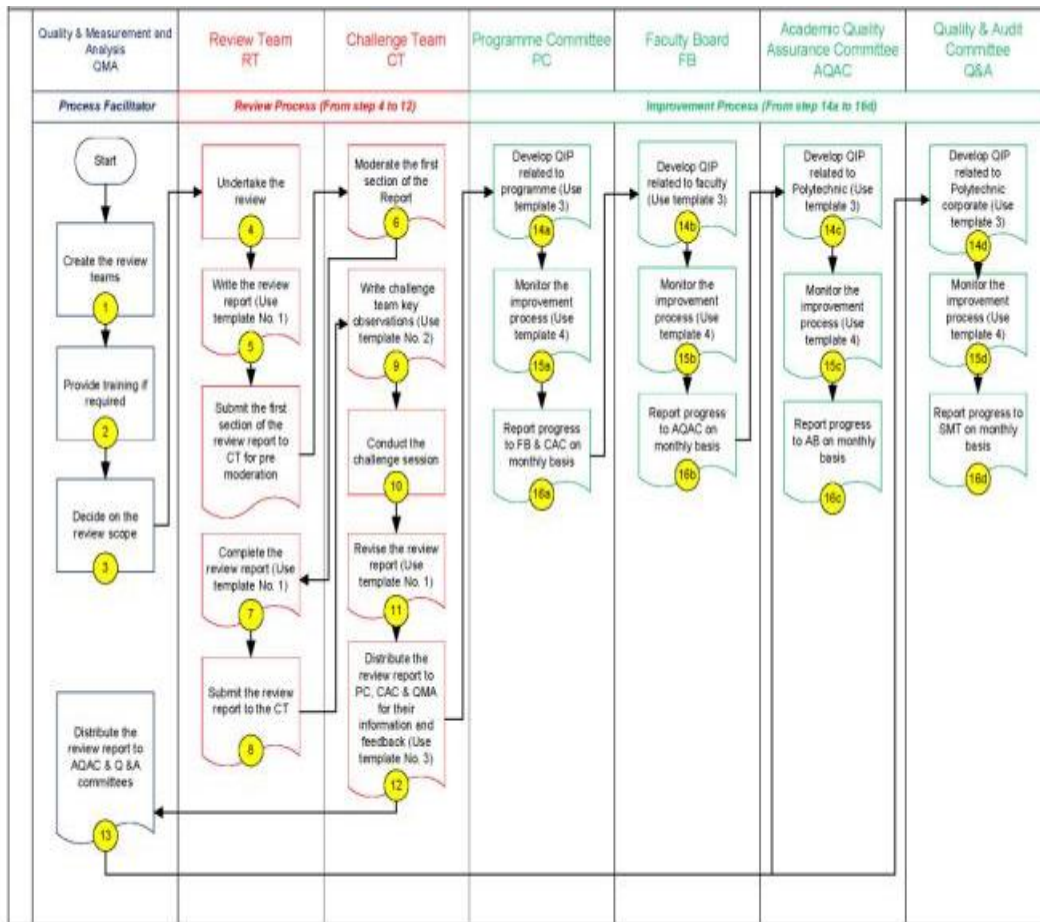
Stage 4: A New Contextualised Programme Review Framework (CPRF)

The findings from Stage one and stage two identified a mismatch between the Polytechnic's Policy (A/QA/002 *Audit, Evaluation and Review)*, which aimed to improve the experience of the learner, and the output of the reviews. The APR process itself was partly responsible for this: it lacked the engagement of the tutors who knew the courses well; and feedback from students was missing.

The findings from Stage 3 indicated that the APR, despite its process orientation, failed to meet its intended purposes, which were to improve the delivery of the programme and the learning experience for the students enrolled in it. It did however engage both Bahraini and expatriate staff, establishing a trusting environment that built reviewer

capability, as well as preparing to meet external accountabilities established by QQA. The challenge for Bahrain Polytechnic is to be cooperative with such external agencies, whilst at the same time meeting its own needs to become a world class HEI known for its work-ready graduates.

To meet this challenge a three level programme review framework was developed as shown in Figure 7:

- Layer One: Annual programme review report (modified templates meet changing needs)
- Layer Two: Periodic programme review (prepares for external audit ; covers the bigger picture, includes trends over APRs)

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- Layer Three: External Audit Agency Reviews (indicators embedded as appropriate in Layers 1 and 2)

This triple Layered CPRF was constructed as a result of analysis of the critical components that require annual review to ensure Programmes meet their specified aims, in contrast to those for which a periodic review would suffice. These critical components were identified from international best practice, an analysis of BP's strategic direction (assisted by workshops with stakeholders from industry, government agencies, staff and students) and a matching of the indicators across relevant audit agencies. The focus on 'measuring what you value' has seen the requirements of the APR considerably reduced, responding to staff complaints about workload. It builds on existing organisational structures, hence increasing the likelihood of programme review becoming a sustainable practice. Table 1 shows how all these elements fit within the roles and responsibilities of existing committees. The process of engagement (opportunities for dialogue) was found in the case-study to build trusting relationships, creating an environment in which risk taking and innovation were encouraged, and hence this aspect was integrated in the CPRF. Through this process of individual learning and reflection, the institute itself will learn, and consequently improve the learning experiences offered to students.

The lack of a complete framework (criteria, standards, process and training), and an inconsistent understanding of the process and variations in completing the reviews, were revealed in a workshop to unpack the APR process in 2012. The (O)ADRI (Objectives, Approach, Deployment, Results, and Improvements) model (Broatch, n.d) that guides what to investigate, and how, had already been in place within a number of programme areas, notably Business and English, and this best practice has now been incorporated within

the CPRF, to ensure institutional consistency. Another action to respond to this critique has seen the establishment of a Measurement and Analysis Unit within the Quality Directorate to ensure that we have internationally benchmarked data definitions, as well as continuing with the regular student course satisfaction and student experience surveys essential to APR.

The major concern emerging from the pilot was the need for BP to follow its own directions for future development congruent with the realisation of its Mission, which drives the Polytechnic's unique curriculum model. Consistent with experience in the Effective Schools' movement, CPRF focuses on the key results expected according to BP's mission, including student academic achievement; retention and graduation targets, as well as graduate employment and employability skills development. Additionally the new streamlined APR process allows for the addition of an annual theme to enhance teaching and learning effectiveness to be added for any cycle. This flexibility allows the new APR process to be responsive to a dynamic economic environment, which drives innovation and the application of technology in programmes. The new APR includes a separate template for each course leader to complete, reducing workload for the PM, whilst ensuring these key course leaders are engaged in their programme's review and have ownership of the outcomes.

This template was implemented for the 2012-2013 APR, Cycle 5, with a focus on Problem Based Learning. AQAC minutes reported "a pleasing improvement in the standard of the reports compared to last year with comprehensive focus on programme and course issues and well thought out Action Plans". At the time of writing the opportunity for dialogue has yet to be scheduled to ascertain whether this thematic approach adds value. As a result of Cycle 5 for the first time a presentation to all students was given by Faculty of course and

programme changes planned, based on student survey results, and other considerations such as industry feedback, which are now part of this new APR process. Once the Polytechnic's new Goals are approved by the Board of Trustees, the Expected Key Results that sit underneath these goals will be incorporated to complete the proposed framework for a sustainable and contextualised Review and Improvement Framework for implementation in future review cycles.

Conclusions

Questions were raised in the literature about the transferability of quality assurance systems from one nation to another and, in particular, external quality assurance systems were found to be of doubtful value in ensuring quality unless there is an internalisation of procedures. Best practice indicated that quality assurance systems need to be developed to fit the cultural context of the country and be congruent with the goals of the particular HEI. In this case-study a programme review format based on a New Zealand model was shaped and reshaped to achieve an effective review framework relevant to the Middle Eastern education environment. By building strong relationships, a central tenant to operating in a Bahraini environment to engender trust and commitment, a sustainable model has been developed that takes into account the Polytechnic's unique student centred and industry driven curriculum.

This three layered Review Framework incorporates a focus on process and outcomes, reflecting the notion of quality as 'fit for purpose' within a dynamic operating environment that requires a responsive model to ensure the ongoing relevance of higher education. The annual review component facilitates ongoing incremental change to programmes based on feedback from learners, tutors and industry, within a timeframe where stakeholders see the benefits. The periodic review phase incorporates external review against required standards within Bahrain and selected international benchmarks. Both the annual and periodic review levels inform the accountability reviews initiated by accreditation agencies such as professional bodies and government regulatory authorities.

Its sustainability seems assured through the commitment to quality expressed by the leadership and enshrined structurally through a Quality Directorate, a committee that monitors the review processes and outcomes (AQAC), and the policies and procedures that guide quality review activities. CPRF assists the Polytechnic to meet its external quality accountabilities, but without detracting from its purpose of ensuring continuous improvement in teaching and learning through its focus on the programme, rather than the institution, as the unit of review. Quality Improvement Plans are a critical outcome of all levels of the review process, enabling monitoring of required actions at a high level, to ensure continuous improvements. After all, you measure what you value.

Implications for Future Research

However, there is still much more to do. In keeping with international best practice, guidelines, principles; criteria; procedures and evaluation processes need to be developed by BP to support the CPRF and ensure consistency over time and across disciplines. A similar process of shaping and reshaping now needs to occur to further develop the Periodic Review procedure currently underway in two different faculties (using different approaches).

In the GCC the issue of the transferability of quality systems is particularly important because of the wider implications for students seeking to transfer credit and graduates wishing to seek employment outside of their home country. Investigation into the perceptions, expectations and assumptions surrounding the self-evaluation concept and application in the MENA context is needed. Investigation is also

needed into the impact of external quality assurance requirements on internal quality management systems. The challenges faced by Middle Eastern institutions to balance the demands of accountability with their quest for improvement are of particular interest given the fiscally restrained economic environment.
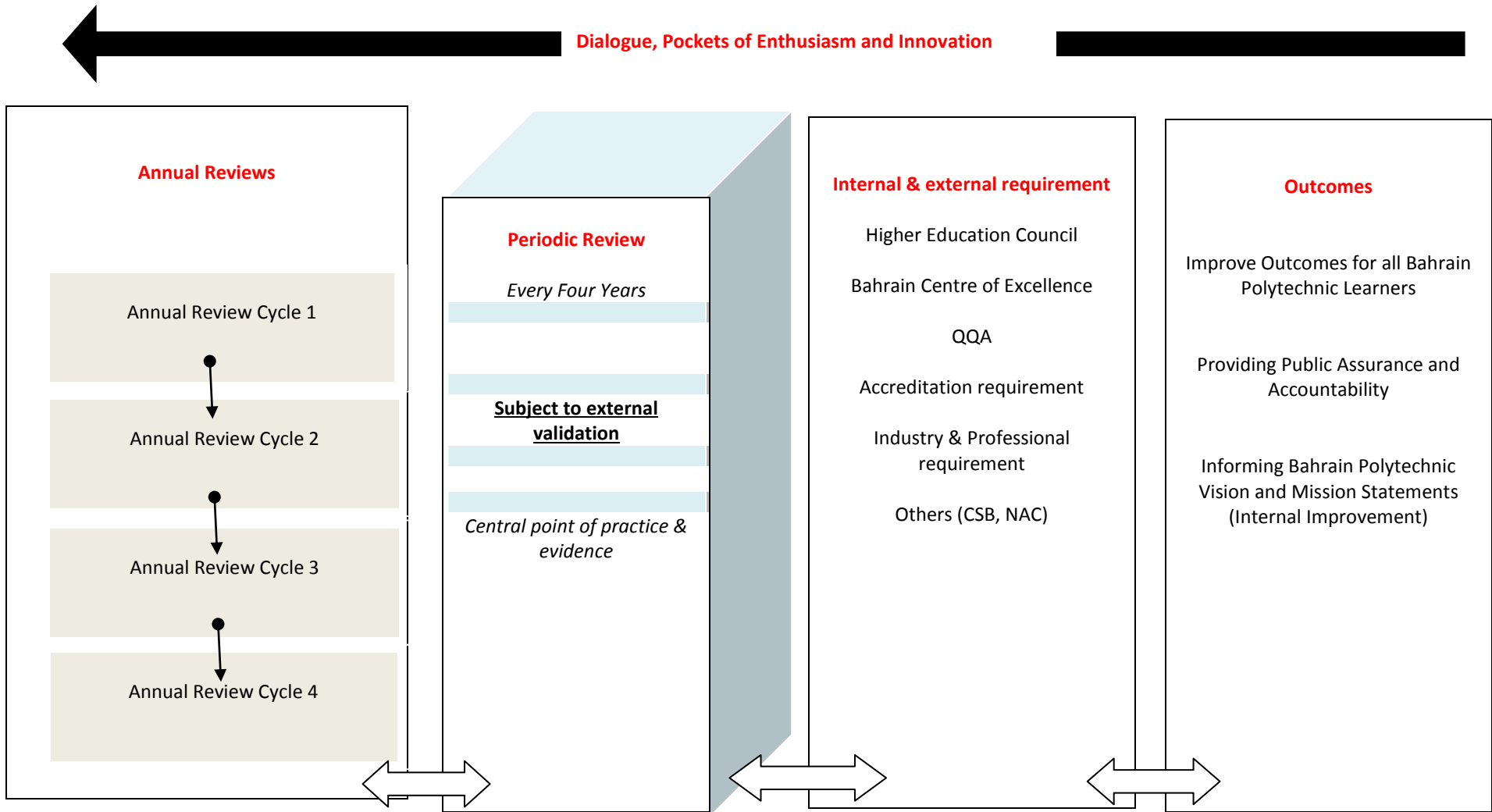
On a global level, more needs to be found out about the impact of quality in higher education. Newton (2012) argues that the quality 'revolution' has a deficit of impact research, particularly the impact of quality assurance processes on academic practice, the student experience and student learning. This is probably the most important challenge of all. This case-study is part of BP's ongoing commitment to a quality culture. By documenting its own quality journey BP seeks to reflect on its own practices to stimulate debate on issues of common concern to the HE sector.

Table 1: Roles and Responsibilities of Committees in the Three layered Review Process

Layer	Quality & Measurement and Analysis QMA	Review Team RT	Challenge Team CT	Programme Committee PC	Faculty Board FB	Academic Quality Assurance Committee AQAC	Quality & Audit Committee Q&A
Annual programme review report (Internal Review) *	Facilitate the process Decide on review scope Formulate review and challenge teams	Carry-out the review Gathering evidence. Develop review judgments. Issued the draft review report	<u>Internal</u> moderation for the review findings (Quality Assurance Process)	Undertake improvement process (issues related to the Programme) Monitor improvement	Undertake improvement process (issues related to the Faculty) Monitor improvement	Undertake improvement process (issues related to the Polytechnic) Monitor improvement	**Undertake improvement process (issues related to corporate)** **Monitor improvement**
Periodic programme Review (link to External audit)	Facilitate the process Decide on review scope Formulate review and challenge teams	Carry-out the review Gathering evidence. Develop review judgments. Issued the draft review report	<u>External</u> moderation for review findings (Quality Assurance processes)	Undertake improvement process (issues related to the Programme) Monitor improvement	Undertake improvement process (issues related to the Faculty) Monitor improvement	Undertake improvement process (issues related to Polytechnic) Monitor improvement	**Undertake improvement process (issues related to corporate)** **Monitor improvement**
External agencies (Cycles)	*HEC*	*BCE*	*QQA*	*Internal requirement*	*Accreditation requirements*	*Industry & Professional requirement*	***Others e.g. CSB & NAC***

Figure 7: Relationships between Annual Reviews, Periodic Review & External Reviews

Dialogue, Pockets of Enthusiasm and Innovation

Annual Reviews

Annual Review Cycle 1

Annual Review Cycle 2

Annual Review Cycle 3

Annual Review Cycle 4

Periodic Review

Every Four Years

Subject to external validation

Central point of practice & evidence

Internal & external requirement

Higher Education Council

Bahrain Centre of Excellence

QQA

Accreditation requirement

Industry & Professional requirement

Others (CSB, NAC)

Outcomes

Improve Outcomes for all Bahrain Polytechnic Learners

Providing Public Assurance and Accountability

Informing Bahrain Polytechnic Vision and Mission Statements (Internal Improvement)

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Appendix A: Review Standards (Requirements) of the Initial Annual Programme Review Process (2008-2010)

Section number	Section title	Standards / Requirements
Section 1	Programme details	Name of Programme: Programme Code: Programme Leader: Programme Manager: Review Prepared by: Brief Description: Target Description
Section 2	Programme Statistics	Number of Students Enrolled Number of Students Withdrawn Number of Students Retained Retention Rate No. passed No. failed Pass rate Comment on programme and course statistics
Section 3	Highlights	Positive Negative
Section 4	Programme and Course Surveys	None
Section 5	Programme Review	Provide feedback on actions taken regarding the recommendations made in the last review.
Section 6	Constraints and Risks	Briefly comment on major issues that may impact on the programme
Section 7	Moderation	7.1 Internal 7.2 External
Section 8	Learning Services	Comment on the use and accessibility of learning support by students
Section 9	Resources	9.1 Upgrading of systems 9.2 Upgrading of equipment 9.3 Library resources
Section 10	10.1 Actions Taken	Summary of any changes or actions taken to improve the programme during review period. What has been done? Why was this done? Date Completed (if applicable)
	10.2 Actions Planned	Summary of any changes or actions planned for next review period.
Section 11	General Comments	None

Appendix B: Programme Annual Review for Academic Year 2012-2013

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PROGRAMME ANNUAL REVIEW FOR ACADEMIC YEAR 2012-2013

Who completes the form and by when:
This form is to be completed by a Programme Manager (or delegate) by 28 November 2013.
The completed document is to be saved as a "read only" file, then uploaded to AQAC SharePoint site.

To complete this form you will need:
- the Course Survey data that can be obtained from QMAP.
- the Course Results from the course summary provided by Registry.

Points to note:
The Programme Annual Reviews are an integral part of our quality assurance practices. In completing the Programme Annual Review, the focus is critical self-evaluation to identify opportunities for improvement in a programme.
Appendix 1 is the Programme Action Plan and actions to improve the programme are to be listed here.

Click here and enter Programme name
Click here and enter name of Programme Manager

Enrolment, Retention and Pass Rate
Copy and paste in the row below the Enrolment, Retention and Pass Rate details table

Analysis of Enrolment, Retention, Pass Rate and Results data
Effectiveness of Quality Assurance & Management, QQA Indicator 4, Sub indicator 2.1.4.7
Describe the pattern of results within the context of results from previous years (completion and retention rates, gender differences)

Programme Statistics by Course
Copy and paste in the row below the results for each course in the programme

Comment on Course Statistics and Survey Results
Effectiveness of Quality Assurance & Management, QQA Indicator 4, Sub indicator 2.1.4.7
Describe the pattern of results across the courses within the context of results from previous years (completion and retention rates, gender differences). From this overall course analysis, identify any required actions

Response to External Moderator's Report
Academic Standards of the Graduates, QQA Indicator 3, Sub indicator 2.1.3.6
Analyse the report and identify any required actions to add to the Programme Action Plan

Response to Programme Monitor's Report (if conducted this year)
Effectiveness of Quality Assurance & Management, QQA Indicator 4, Sub indicator 2.1.4.2
Analyse the report and identify any required action to add to the Programme Action Plan

Appendix B: Programme Annual Review (2012-2013) (Page 2)

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Staffing
Efficiency of the Programme, QQA Indicator 2, Sub Indicator 2.1.2.4
Comment on staff changes in the review period that have significant impact on the programme (e.g. resignations to hand; new courses/majors awaiting recruitment. Identify any required action to add to the Programme Action Plan

Professional Development and Research Activities
Effectiveness of Quality Assurance & Management, QQA Indicator 4, Sub indicator 2.1.4.8
Comment on whether PD activities and research are meeting the needs of staff to keep up to date in their specialisations and/or teaching practice. Identify any required action to add to the Programme Action Plan

Facilities and Resources
Efficiency of the Programme, QQA Indicator 2, Sub indicator 2.1.2.8
Comment on any issues that specifically affected the programme. Identify any required action to add to the Programme Action Plan

Advisory Committee
Academic Standards of the Graduates, QQA Indicator 3, Sub indicator 2.1.3.12
Comment on the process of consultation and how feedback from it was used. Focus on employability skills, industry placement and projects where applicable. Identify any required action to add to the Programme Action Plan

Problem Based Learning
Describe how Problem Based Learning is being implemented across this programme, and highlight any best practice or associated challenges. List any required actions in the Programme Action Plan

Good Practice
Identify areas of good practice and/or innovation in the programme that you would like to share with the Polytechnic community

Constraints and Risks Specific to this Programme
Indicator 2
Comment on issues that have impacted on the sustainability and quality of the programme. Identify any required action to add to the Programme Action Plan.

Appendix B: Programme Annual Review (2012-2013) (Page 3)

Actions
Last Year's Annual Programme Review
• Insert in the row below last year's Action Plan indicating the current status of each action (Completed, In Progress, Not Started).
• Provide justifications for incomplete actions or those that are beyond the stated timeline.
• Identify any required actions that are to be carried over in the Programme Action Plan

Programme Action Plan

Actions Planned

Summary of any changes or actions planned for next review period. The following table can be used to complete this section.

What is to be done?	Person Responsible	Due Date	Evidence of Completion	Responsibility for Checking	Current Status

These should be added to your Faculty Quality Improvement Plan (QIP). Progress towards completion of these actions should be monitored at Programme Committee and reported at Faculty Board.

Appendix C: Course Template

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END OF SEMESTER COURSE REVIEW

Who completes the form and by when:
This form is to be completed by the Course co-ordinator or a delegate **every time a course runs and at least once each semester.**
The completed document is to be saved as a "read only" file, then submitted to your programme manager.

To complete this form you will need:

- the Course Survey data that can be obtained from QMAP
- the Course Results from the course summary provided by Registry
- external moderator's report - if relevant (please append)
- internal moderator's report – if relevant (please append)

Semester Choose an item.	Academic Year Enter Academic Year
Course code Enter course code	Course title Enter course title
Course co-ordinator Enter Co-ordinator name	Staff ID *Enter staff ID number*

Introduction

Changes introduced this semester	Eg, new assessment type, new topic, new lab or software etc. Special temporary setups eg, different cohort of students

Teaching team review of semester

What worked well	List the positive points from the course
What can be improved	List of points that need to be reviewed

Course Survey review

Response rate	Enter from data provided by QMAP**%**
Overall satisfied rate	Enter from data provided by QMAP**%**
Analysis of data	Highlight the positives and negatives of the data section of the Course Survey.
Summary of comments	Summarise the results of the comments section of the Course Survey positive and negative. Comment

Results: Review of grades

Copy the course grade results as provided in the 'Course Summary' to Registry and paste below

Analysis of results	Analyse and comment on the grade results and note any issues that need to be addressed

Moderation

Feedback from external moderation	Response to external moderation feedback
Feedback from internal moderation	Note any issues that need to be addressed

Items needing action

List any items that need to be considered for action in the programme review