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A strategic quality assurance framework in an African higher education context

FRANCIS ANSAH*

Institute for Educational Planning and Administration, University of Cape Coast, Cape Coast, Ghana

This study is based on a pragmatist analysis of selected international accounts on quality assurance in higher education. A pragmatist perspective was used to conceptualise a logical internal quality assurance model to embed and support the alignment of graduate competencies in curriculum and assessment of Ghanaian polytechnics. Through focus group and in-depth interviews, the framework was evaluated by internal stakeholders including lecturers, students and administrators of the polytechnics. It was found that from a pragmatist perspective, quality assurance concepts and practices in higher education reported in the international literature could be used to design a context-specific quality assurance framework for higher education systems in Africa but there will be challenges with implementation of such a framework. The challenges found include quality culture and financial resources. Nonetheless, it was noted that effective planning and stakeholder commitment can surmount the challenges to ensure effective implementation of the framework to enhance quality.

Keywords: quality assurance framework; curriculum; assessment; pragmatism; higher education

Introduction

Over the past 20 years, there has been a global fascination with quality assurance in higher education, predicated on its perceived capacity to guarantee and enact stakeholders' expectation of quality. The spread of the Tuning Project, an initiative of universities within the European Union across several continents gives credence to the global nature of quality assurance in contemporary higher education. Currently, there are Tuning Europe, Tuning Latin America, Tuning USA, Tuning Russia and Tuning Africa (Tuning, 2012, p. 363). This reinforces the importance given to quality assurance in contemporary higher education and indicates that there is a wealth of insights that can be drawn upon in framing quality assurance in

*Email: francis.ansah@ucc.edu.gh

new or emerging settings. However, the framing in new settings must be strategic in order to address issues of context effectively.

Recent developments in Africa's higher education systems also point to an increasing focus on using quality assurance as an important mechanism to make African higher education more efficient and competitive (Jongsma, 2013; Kigotho, 2013).

Ghana has been a key player in contemporary higher education quality assurance in Africa because it is one of the African countries that has established relatively strong external quality assurance mechanisms (Njoku, 2012; Kigotho, 2013). Ghana is also the headquarters of the Association of African Universities, which is working to strengthen institutional capacity for quality assurance in Africa's higher education systems. However, internal quality assurance in Ghana's higher education institutions needs strengthening, especially for the polytechnics (Ansah, 2010; Alabi & Mba, 2012; Njoku, 2012; Oyewole, 2012).

In this paper, a case is made for an internal quality assurance framework for embedding and aligning graduate employability competencies in curriculum and assessment based on insight from past approaches and guided by a pragmatist perspective.

The main research questions of the study are:

- (1) How is quality assurance conceptualised in the international literature on quality assurance in higher education?
- (2) What are the practical implications of using the international accounts to inform a conceptualisation of an internal quality assurance framework for embedding and aligning graduate employability competencies in Ghanaian polytechnic curriculum and assessment?

A pragmatist strategic perspective was considered useful in analysing higher education quality assurance conceptualisations in the international literature because pragmatism focuses on solving a real-world problem in a context (Biesta, 2010; Bacon, 2012). The adoption of a pragmatist strategic perspective is to help conceptualise a context-specific internal quality assurance framework to support Ghanaian polytechnics to embed and align graduate employability competencies in their study programmes that are considered to have skill mismatches with skill needs of employers (National Development Planning Commission of Ghana, 2010; Bakah, 2011; Gondwe & Walenkamp, 2011). However, the focus of this study is not to conceptualise an internal quality assurance framework for an entire study programme but for the embedding and alignment of graduate employability competencies in curricula and assessment. Graduate employability competencies, in this study, refer to the generic and subject-specific knowledge and skills that polytechnic graduates need to possess to enable them to find employment,

whether in the formal sector or self-employment. The use of pragmatism as a theoretical orientation for conceptualising the framework is explained in more detailed at the methods section of this paper.

The Ghanaian polytechnics in context

Ghana currently has ten polytechnics; there is a polytechnic in the national and every regional capital of the country. This is intended to make polytechnic education accessible to individuals whose participation might otherwise have been constrained by geographical remoteness. This is because the country is using polytechnic education to prepare its youth for industrialisation through advanced-level technical and vocational training (Government of Ghana, 2007). Academically, polytechnics in Ghana have been progressive institutions. They began as technical institutes offering education at the secondary level (Bakah, 2011). They were then transformed into polytechnics but still considered as non-tertiary institutions offering advanced crafts and technician programmes (Nsiah-Gyabaah, 2005). An education reform elevated the polytechnics to a tertiary status in 1993 with the mandate to offer a Higher National Diploma in commerce, manufacturing, science, technology, applied social sciences, applied arts and such other areas (Provisional National Defence Council Law 321, 1992; Nsiah-Gyabaah, 2005; Bakah, 2011; Ansah, 2012). In 2007, the polytechnics received a further upgrade to degree-awarding status in order to provide a smooth academic progression for polytechnic graduates and to maximise the potential of staff and facilities at the polytechnics (Government of Ghana, 2007). Some authors (Gondwe & Walenkamp, 2011) describe polytechnic education as higher professional education while others (Bakah, 2011; Ansah, 2012) refer to it as career-oriented education. However, in this study, industry-oriented is preferred because professionally, the polytechnics are required to offer industry-oriented study programmes (Afeti, 2010; Amankwah, 2011; Bakah, 2011; Ansah, 2012). This is why the component of a polytechnic curriculum that requires students to experience the world of work, is referred to as an 'industrial attachment'. The industrial attachment, also known as student attachment programme is a component of the polytechnic curricula that requires all Higher National Diploma students to have a minimum of six weeks practical experience in industry before graduation.

Since their elevation to tertiary status, the polytechnics have only implemented national curricula and assessment developed by external body known as the National Board for Professional and Technician Examinations. As a result they have existed as tertiary institutions for over two decades but are still perceived to have weak internal quality assurance, especially in the area of curriculum and assessment (Ansah, 2010). They have now started offering degree programmes that do not fall under the purview of the National Board.

Research in higher education quality assurance has shown that strong external quality assurance without equally strong internal quality assurance does not guarantee real improvement in quality (European Association for Quality Assurance in Higher Education, 2010; Harvey & Williams, 2010; Kettunen, 2010; Law, 2010; Poole, 2010). This means higher education institutions in Ghana, especially polytechnics, need to have strong internal quality assurance to complement the external quality assurance for real improvement in quality to occur. An internal capacity for quality assurance within higher education institutions has been recognised as an essential component addressing quality assurance concerns holistically in Africa's higher education systems including Ghana (Alabi & Mba, 2012; Njoku, 2012). According to Alabi and Mba (2012) internal quality assurance in Africa's higher education systems should not just be institutionalised but sustained as well. Despite the efforts of the external quality assurance system of the polytechnics and interventions in curriculum reforms, alignment of study programmes with the labour market is still considered a challenge for polytechnic education (Bakah, 2011; Gondwe & Walenkamp, 2011).

From the perspective of this study, the polytechnics need a robust internal quality assurance framework for embedding and aligning graduate employability competencies in curriculum and assessment to complement the external quality assurance in order to meet the needs of the labour market. Innovative curricula without continuous alignment and regular fine-tuning through internal quality assurance are insufficient to maintain and improve quality (Biggs & Tang, 2007; González & Wagenaar, 2008). Three forms of alignment in curriculum and assessment activities are necessary for the polytechnics. These are: constant alignment of curriculum content with graduate competencies required by the labour market; alignment of individual course units within the curriculum to enhance coherent development of competencies; and alignment of assessment with the required competencies of graduates to guide students' learning (Biggs & Tang, 2007). These forms of alignment should be supported by regular fine-tuning in order to maintain the relevance and currency (González *et al.*, 2008) of polytechnic curriculum and assessment embedding graduate employability competencies.

The study approach and methods

Pragmatist theoretical orientation

The study was conducted using a pragmatist theoretical framework because pragmatism is a theory of action that focuses on what works in a given context through logical proof, negotiations and settlements with end-users of particular concepts or practices (Mauléon & Bergman, 2009; Biesta, 2010; Bacon, 2012). Some pragmatists believe that meaning should inform action and meaning is acquired through logical proof, debate and negotiations based on past approaches and experiences (Biesta, 2010; Bacon, 2012). A

pragmatist perspective also supports that the known could be used to reconstitute the known in a new form to solve a real-world problem (Schwartz, 2012). This means that past approaches and experiences in higher education quality assurance internationally could be used to conceptualise a logical quality assurance framework for Ghanaian polytechnics through logical proof, negotiations and settlements with the end users of the framework. The study employed a pragmatist perspective for conceptualising the internal quality assurance framework for two main reasons.

The first reason for using a pragmatist perspective is pragmatism's focus on actions and what works in a real-world situation based on past experiences irrespective of a particular theoretical stance. In support of this perspective, Alabi *et al.* (2013, p. 5) have conceptualised quality as 'what you want and works for you or what end users want and works for them'. This implies that past experiences on quality assurance in higher education can be used to conceptualise a quality assurance framework for a specific context provided the intended end users agree that it will work for them. This is because there is a collective wisdom on the need to focus on the practical relevance and efficient student-oriented context-approach to quality assurance in order to improve higher education outcomes rather than perceiving quality from an *a priori* judgement system (Harvey & Newton, 2004; Singh, 2010).

The second reason for using a pragmatist perspective is that pragmatism supports not only logical proof of claims but also negotiations and settlements on a phenomenon with multiple perspectives so that different perspectives can be aligned to solve problems. Quality in higher education has multiple perspectives (Harvey & Williams, 2010; Singh, 2010) and from a pragmatist standpoint, this requires continuous negotiations and settlements among stakeholders such as funding bodies, policy-makers, professional bodies, employers and the academic community (Srikanthan & Dalrymple, 2003; González & Wagenaar, 2008). Pragmatists reject an *a priori* judgement system for any phenomenon including quality in higher education (Bacon, 2012; Schwartz, 2012), which suggests that quality assurance frameworks are not only meant for the guarantee and enactment of quality but also a platform for negotiations and settlements on the meaning of quality in higher education. Therefore, pragmatism is a strategic theoretical framework for addressing quality assurance in higher education, especially in Africa where quality assurance is an emerging concept, because it requires the engagement of stakeholders to ensure collective responsibility for quality.

Conceptualising the framework

From a pragmatist standpoint, this research examined the literature on quality assurance in contemporary higher education to identify factors influencing contemporary quality assurance in higher education internationally

and in Africa including Ghana in order to establish any similarities that can support the use of the international accounts in the context of Ghana. The factors (mass participation, marketization and privatisation, declining state funding, internationalisation and globalisation and advancement of technology) identified in the international literature were considered similar to those of Africa including Ghana, even though the factors differed in scale. For example, Africa has experienced mass enrolment in higher education over the last two decades but, globally, it is considered to have the lowest percentage of eligible citizens enrolled in higher education (Materu, 2007). After similarities in the factors influencing higher education quality assurance were identified, the research examined how higher education quality assurance had been variously conceptualised in order to identify key components of the conceptualisations and their relevance to the Ghanaian context. This led to the identification of six key components of quality assurance conceptualisations in higher education. These key components are: purpose of quality assurance, method of quality assurance, domain of quality assurance, data collection approach of quality assurance, output report of quality assurance and audience of quality assurance reports. These components were then explained in the specific context of Ghanaian polytechnics to produce the internal quality assurance framework for the polytechnics.

Qualitative methods

Based on a pragmatist perspective, qualitative methods including focus group workshops and in-depth interviews were used to evaluate the framework. These qualitative methods ensured engagement of internal polytechnic stakeholders in evaluating the conceptualised quality assurance framework, making them feel part and parcel of conceptualising the final quality assurance framework to be implemented in the polytechnics.

A purposive sampling technique was used to select five of the ten polytechnics in Ghana for focus group evaluation of the framework. The purposive sampling was used in order to capture the necessary profiles of the polytechnics including, dates of establishment, size, geographical locations, as well as staff and students. Time and logistics did not permit the use of all the ten polytechnics in Ghana; however, the sample size captured the key characteristics representing the polytechnics. Stratified sampling was then used to establish three main focus groups namely: lecturers' group, students' group and administrators' group. These stakeholder groups were selected strategically due to their capacity to evaluate and influence the implementation of a framework of this nature because they are directly connected to the operational activities of the polytechnics (Ansah, 2010). Also it is assumed that based on their collective decisions that the implementation of the framework might be effective because the framework is for internal quality

assurance. Simple random sampling was used to select ten lecturers and ten students in each of the five polytechnics for focus group workshops. Finally, a purposive sampling was again used to select four administrators in each of the five polytechnics to be part of the focus group workshops. The purposive sampling of administrators was to ensure that the views of key administrators were canvassed to address crucial implementation issues. Eventually, one hundred and twenty participants made up of 50 lecturers, 50 students and 20 administrators participated in group workshops.

A workshop was organised at each of the five polytechnics selected. At each workshop, a PowerPoint presentation was made to explain the concepts of the framework and clarify the guiding questions for the evaluation of the framework. After the presentation, three focus groups, namely: lecturers, students and administrators were formed to debate and discuss the framework within groups. Plenary sessions were held after the focus group discussions to receive presentations from the various groups and build consensus on the framework.

Also, after the focus group workshops in all the five participating polytechnics, one of the polytechnics agreed to be used for an additional single case study evaluation. In-depth interviews were conducted at the additional single case study polytechnic using the rector, vice-rector, quality assurance officer and a head of an academic department. The additional single case study was used to obtain deeper understanding of any perceived implications for implementation of the framework in the polytechnics.

The focus group workshops and the in-depth interviews were guided by the following questions:

- (1) What would be your description of quality polytechnic education?
- (2) Which of the key components of the framework do not seem appropriate to you and why? What do you suggest?
- (3) To what extent do you think the framework has the capacity to promote an effective inter- and intra-alignments of graduate employability competencies and why?
- (4) To what extent do you think the framework has the capacity to promote effective participation of relevant stakeholders in aligning and fine-tuning graduate employability competencies in curriculum and assessment activities of the polytechnics and why?
- (5) To what extent do you think the framework has the capacity to support the tracking of graduate employability competencies in curriculum and assessment of the polytechnics and why?
- (6) Do you think effective implementation of this framework can promote graduate employability and why?
- (7) Do you consider this framework as a good quality assurance framework for curriculum and assessment in the polytechnics and why?

- (8) What do you consider will be the main practical implications of implementing this framework in the polytechnics and why?
- (9) What other issues need to be incorporated in this framework for effective tracking and improvement of graduate employability competencies in curriculum and assessment activities of the polytechnics?
- (10) Please, give your general impression about the framework.

These questions were used to elicit participants' conceptual acceptance of the framework and the practical implications of implementing the framework in the Ghanaian polytechnic context. The questions were first piloted through a mock evaluation exercise using staff and students of School of Education, Bendigo campus, La Trobe University, Australia and subsequently using cross section of the internal stakeholders of the polytechnics. This was done to check for construct and content validity. Results from the pilot evaluation were used to improve the questions, researcher's presentation and questioning skills before the actual evaluation at the polytechnics.

Responses from the polytechnic participants were received in both written and tape-recorded forms. They were analysed thematically in accordance with the components of the framework with the help of Nvivo software. The responses are provided in the discussion of the evaluation results in this paper.

For ethical reasons, where polytechnic names are mentioned, pseudonyms are used to represent the polytechnics in this study.

The quality assurance framework

Research question 1: How is quality assurance conceptualised in the international literature on quality assurance in higher education?

A pragmatist analysis, which means examining claims and propositions with regards to practical relevance to a particular context, was done to selected international accounts on quality assurance conceptualisations in higher education. The analysis focused on key components of quality assurance conceptualisations and principles for implementing quality assurance in higher education. The key components and the principles identified in the literature were used to conceptualise an internal quality assurance framework for embedding and aligning graduate employability competencies in the Ghanaian polytechnic curriculum and assessment as has been described in the ensuing paragraphs.

The first component of the framework identified was the purpose of quality assurance. The purpose of quality assurance in higher education has generally been categorised as improvement and accountability (Ewell, 2007; Perellon, 2007; Santiago *et al.*, 2008). The purpose of this framework should be mainly for improvement in curriculum and assessment practices

to embed and align graduate employability competencies in order to address the alignment problem discussed earlier on. However, it has been argued that improvement and accountability functions of quality assurance are not mutually exclusive (Mhlanga, 2008; Santiago *et al.*, 2008; Kahsay, 2012). The current context of polytechnic education in Ghana also supports the complementarity of the improvement and accountability functions of internal quality assurance. However, achieving a balance between the two functions of quality assurance is not straightforward (Mhlanga, 2008; Santiago *et al.*, 2008). Nonetheless, the accountability function of this framework is intended to be minimal because the increasing concern about the quality of polytechnic education in Ghana requires an internal quality assurance with a strong orientation to continuous improvement. This means that there should be less bureaucratic processes for internal quality assurance of the polytechnics (European Association of Universities, 2006). Monitoring and coordinating should play a more supportive and developmental role in order not to be perceived by staff as controlling mechanisms (European Association of Universities, 2006).

The second component of the framework was the method of quality assurance. Continuous improvement in graduate employability competencies requires diagnostic information on strengths and weaknesses. This means judging quality based on valid and reliable information on graduate employability competencies. Therefore, the method of quality assurance adopted for this framework is evaluation, which is a systematic collection, analysis and judgment of feedback and feed-forward information (Scheerens *et al.*, 2003) on graduates' employability competencies. The polytechnics need to always have a system of evaluation and feedback loops (European Association of Universities, 2006) for capturing data relating to the achievement of graduate competencies within study programmes and judge their employability status regularly.

The third component of the framework was the domain of quality assurance. Recent developments in the Ghanaian polytechnic education sector point to a renewed attention to quality curricula and assessment in Ghanaian polytechnics (Bakah, 2011; Gondwe & Walenkamp, 2011). Therefore, the framework should tactically focus on curriculum and assessment as domain for establishing principles meant to assure the enactment of graduate employability competencies of study programmes. This will help to address inter- and intra-alignments challenges and fine-tune graduate employability competencies in curriculum and assessment of study programmes. The focus on curriculum and assessment means systematising quality assurance practices by breaking down the operations of the polytechnics into domains and establish principles or protocols for each domain. This makes the tasks of quality assurance manageable by focusing on areas that require attention in order to address quality concerns effectively.

From a quality assurance perspective, the competencies of polytechnic graduates should constantly match those needed by local, national and international labour markets. This requires alignment of polytechnic curriculum and assessment with skill-needs of industry in order to reduce the incidence of skill mismatch because the industrial skill-needs keep changing (Biggs & Tang, 2007). This alignment is considered by this framework as inter-alignment. There is another important type of alignment that occurs within a study programme. It involves the linkages among individual course units and the match between assessment and curriculum competencies in order to achieve coherent and flexible learning experiences for students (Biggs & Tang, 2007), thus facilitating and enhancing the development of employability competencies. This second alignment is referred to in this framework as intra-alignment. The polytechnics should ensure that individual course units and assessment are aligned effectively with the established competencies through inter-alignment. This facilitates coherent learning experiences for students. It minimises overlaps, unnecessary repetitions and ensures appropriate distribution of student workload throughout the study programme (Biggs & Tang, 2007; González *et al.*, 2008).

From the standpoint of this framework, inter- and intra-alignment processes depend largely on sufficient participation of key stakeholders in the alignment processes (Frazer, 1994; European Association of Universities, 2006). The graduate employability competencies have to be established through consultative process involving key stakeholders such as funding bodies, policy-makers, professional bodies, employers and the academic community (Srikanthan & Dalrymple, 2003; European Association of Universities, 2006; González & Wagenaar, 2008; Hancock *et al.*, 2009). In the Ghanaian polytechnic context, the key stakeholders may include: lecturers, students, administrators, graduates, employers, professional bodies, National Accreditation Board, National Council for Tertiary Education and the National Board for Professional and Technician Examinations. The stakeholders, through their representative groups, should be asked to provide inputs for establishing employability competencies of graduates of any particular study programme. The stakeholder inputs can then be synthesised and negotiated for a final settlement of the most important employability competencies of graduates. Sufficient stakeholder participation in the alignment processes helps to address issues of relevance, comparability, compatibility, transparency, mobility and attractiveness (González *et al.*, 2008) of curriculum and assessment of study programmes.

Fine-tuning is based on an assumption that quality has constant shifting emphases in higher education (Badley, 1993; Sebastianelli & Tamimi, 2002). The meaning of quality in higher education will continue to change and so should the mechanisms for guaranteeing and enacting it. This makes fine-tuning essential for achieving and maintaining acceptable meaning of quality at any given time. Fine-tuning is meant to constantly examine

polytechnic curriculum and assessment against established quality indicators, especially those of relevance, comparability, mobility, compatibility, transparency and attractiveness (González *et al.*, 2008). This suggests that the current meaning of quality as graduate employability competencies including the need to focus on curriculum and assessment may change in the future. Fine-tuning is a concept that requires the polytechnics to regularly check that the current meaning of quality and focus of quality assurance are relevant, comparable, compatible, transparent, mobile and attractive. Relevant means that the meaning of quality at any given time is acceptable to stakeholders of polytechnic education while comparability and mobility ensure that the polytechnics apply international standards to enable their graduates employable globally. Compatibility ensures that the meaning of quality is consistent with institutional mandates and that quality assurance practices adapt to institutional culture. Transparency and attractiveness consider the perspectives of key stakeholders in order to satisfy them through negotiations and settlements. Through stakeholder consultative process, this fine-tuning should be initiated and completed periodically by the internal stakeholders of the polytechnics.

The fourth component of the framework was data collection for quality assurance. One of the essential components of quality assurance is data collection and analysis (European Association of Universities, 2006; Scott, 2010). Both improvement and accountability functions of quality assurance are based on data. It is now clear that the framework is for assuring the enactment of employability competencies of graduates in curriculum and assessment and it presumes that employability competencies are the key reference for data collection. This implies identifying not just stakeholders who have the capacity to provide relevant indicators regarding employability competencies but also data collection instruments that are suitable for the different stakeholders. The data collection should also ensure that both quantitative and qualitative information are provided to stakeholders (European Association of Universities, 2006; Scott, 2010). The data collection should be limited to what can feasibly be processed by the polytechnics' internal data processing capacity in order to avoid data overload because it is a costly exercise (European Association of Universities, 2006). Among the common data collection instruments in quality assurance are surveys, interviews, workshops and document analyses (Kis, 2005; Scott, 2010). These are seen in key informant interviews, stakeholder workshops, student satisfaction surveys, employer surveys, graduate destination surveys and the use of benchmarks (Kis, 2005; Scott, 2010). Polytechnics in Ghana have large and diverse stakeholder groups. In order to obtain a fair representation of these stakeholder groups' perspectives on employability competencies of graduates, surveys are considered relevant for the polytechnics to capture large-scale stakeholder inputs. However, under certain circumstances, it might be appropriate to interview key representatives of the

stakeholder groups for their inputs. Workshops are also suitable platforms for consensus-building among stakeholders with different positions on employability competencies of graduates. Workshops can also be used to discuss the alignment of individual courses and assessment within the polytechnics. Furthermore, benchmarks should be used to enrich graduate employability competencies in curriculum and assessment.

The fifth component of the framework identified was output reports of quality assurance. Data are analysed to produce reports in order to inform decision-making (European Association of Universities, 2006). Effectiveness of improvement plans are based on performance trends (Scott, 2010). However, performance trends are known from reports on past activities. Therefore, a quality assurance framework should generate timely output reports in order to inform improvement decisions and actions effectively. This quality assurance framework is intended to enact employability competencies of graduates in polytechnic curriculum and assessment. The implementation of the framework should result in regular and timely reports containing statements of outcomes and recommendations on employability competencies of graduates (Billing, 2004). The output report of the framework should provide presentations, analyses, conclusions and recommendations for continuous inter- and intra-alignment and regular fine-tuning of employability competencies of graduates in curriculum and assessment of the polytechnics.

The sixth and last component of the framework was the audiences of quality assurance. The functions of quality assurance, whether internal or external as established earlier, are improvement and accountability. This implies that any quality assurance report should address an audience or audiences in order to fulfil its improvement and accountability functions. The audience or audiences of a quality assurance reports could be internal or external or both, depending on the functions it is performing (Billing, 2004). An output report performing an accountability function usually serves external audiences of an institution whilst an output report meant for improvement usually serves internal audiences of an institution (Billing, 2004). The output reports of this framework are primarily meant to serve the internal stakeholders of the polytechnics because of its improvement orientation.

Evaluation of the quality assurance framework

The evaluation results show participants' conceptual acceptance of the framework. The framework's pragmatist definition of quality polytechnic education as indicated earlier is employability competencies of graduates. The results of the focus group workshops revealed a similar understanding of quality by the participant stakeholders. For example, South-East Polytechnic participants defined quality polytechnic education as 'the ability of graduates to create jobs for themselves and others; and application of

acquired skills and knowledge on the job'. National Polytechnic participants defined quality polytechnic education as 'ability of students to demonstrate the competencies required by industry and society'. Professional Polytechnic participants perceived quality polytechnic education as 'equipping individuals for the world of work, further studies and participation in civil society'. Sahara Polytechnic representatives defined quality polytechnic education as 'producing graduates who are capable of solving both academic and professional problems; graduates who demonstrate competencies that meet industry requirement; and graduates who can employ themselves'. South-West Polytechnic representatives defined quality polytechnic education as 'producing graduates who are innovators and employable'.

After intensive discussions in their various focus groups, the participants also concluded that all the key components of the framework including the specific principles had been appropriately conceptualised for the polytechnics. South-East Polytechnic representatives said, 'All our three focus groups including the lecturer group, student group and administrator group have concluded that all the components of the framework are appropriate for enacting employability competencies of graduates in the polytechnic'. The representatives of the remaining four polytechnics offered similar feedback when the views of the different focus groups were collated.

The conclusions by the participating stakeholders that all the components of the framework including the domain are appropriately conceptualised, is an indication of their tacit agreement to have an internal quality assurance framework specifically for curriculum and assessment in order to enact employability competencies of graduates. This claim is based on the fact that the framework focuses only on curriculum and assessment for enacting employability competencies of graduates that the stakeholders unanimously considered appropriate for the polytechnics.

Research question 2: What are the practical implications of using the international accounts to inform a conceptualisation of an internal quality assurance framework for embedding and aligning graduate employability competencies in Ghanaian polytechnic curriculum and assessment?

Since, conceptual acceptance does not necessarily guarantee successful implementation, participants were asked to point out any perceived practical implications with regards to successful implementation of the framework. The participants thus highlighted the following perceived practical implications for implementation of the framework.

First, at the various focus group workshops, participants indicated that funding to conduct large-scale consultations to establish graduate employability competencies may challenge effective implementation. They argued that the additional financial burden not only for large-scale consultation but also staff training and orientation may impede implementation. The participants from all the participant polytechnics were unanimous in their

response that funding would challenge effective implementation. Second, most participants argued that the principles presented in the framework may require additional staff capacity-building in order to successfully apply the principles effectively, especially, the intra-alignment principles that are not an integral part of current practices. They intimated that the additional skill set and knowledge required may slow progress in the implementation of the framework. Third, almost all non-management participants were apprehensive about the necessary commitment from management to implement a framework that would bring additional financial burden that could be avoided without it. On the other hand, management participants and some faculty members believe that there would also be lack of cooperation from faculty members. This was attributed to resistance to change. Most of the participants also indicated that it would be difficult to obtain cooperation from external stakeholders such as employers, professional bodies and policy makers who are supposed to provide data on graduate competencies. It was posited that, the polytechnics were still struggling to obtain cooperation from industry for their existing student attachment programmes and similar challenges of cooperation were likely to arise if the framework was to be implemented.

In effect, the participants argued that there would be financial, technical and cultural implications for implementing the framework. The same practical implications raised by the focus-group discussions were reiterated by the in-depth interviews conducted at the single case-study polytechnic. However, the participants were optimistic that proper planning, staff capacity-building and staff involvement in the process of conceptualising the framework could address the practical challenges associated with effective implementation of the framework. These were revealed in the following statements by participants:

There is a part in your framework about alignment; but it is not anybody at all who can develop these alignments; that is the way I see it. Some of the lecturers are very good and can do it but others will definitely need some form of training.

As at now, I think funding is needed to support implementation. Even the training we talked about, it will require funding but we can do it internally if we plan well.

I mean if everyone is involved from the beginning and we understand, I do not think it will be a problem at all. After all, everyone wants to be part of a successful enterprise.

These were but few of the statements from participants that show optimism in addressing the practical implications of implementing the framework in the Ghanaian polytechnic context.

Conclusion

The empirical evidence of this study has shown that the international accounts on quality assurance in higher education can be used to conceptualise an internal quality assurance framework for a specific context using a pragmatist perspective. The conceptual acceptance of the framework by the internal stakeholders of the polytechnics has confirmed this. However, there were also certain practical implications associated with using the literature to conceptualise an ideal quality assurance model for a specific context, especially in countries where quality assurance in higher education is emerging.

The empirical evidence raised financial concerns that are consistent with evidence in the literature on the need for additional funds to support quality assurance implementation (European Association of Universities, 2006; Allulli & Tramontano, 2009; Keskula & Loogma, 2009; Larsen & Andersen, 2009; Pepper, 2009; Visscher, 2009; Visscher & Hendriks, 2009). The polytechnics need to make continuous investment in financial resource for implementing quality assurance frameworks (European Association of Universities, 2006).

It has been argued that staff development is key to an effective quality culture (Scott, 2009). There should be a permanent arrangement for staff training and participation in conferences to develop skills and build awareness of quality assurance (European Association of Universities, 2006). This provides motivation and promotes commitment because staff members can relate to the benefits of being part of implementing change.

The participants also raised concern about stakeholder commitment and cooperation in implementing the framework. This has been identified in the literature as part of a quality culture, indicating problems of strategic direction and distributed responsibility for quality assurance (European Association of Universities, 2006). The senior leadership of the polytechnics needs to provide strategic direction by articulating the link between implementation of the framework and the polytechnics' mandate (Scott, 2004; European Association of Universities, 2006). It has been claimed that 'developing a quality culture in a strategic vacuum may become a pointless exercise that can be de-motivating' (European Association of Universities, 2006, p. 13). As one of the participants remarked, 'after all, everyone wants to be part of a successful enterprise'. This is a demonstration that stakeholders would like to know the pay-offs for their commitment and cooperation for implementation. One of the participants also indicated that 'if members of staff are made to understand that it is for improvement and not witch-hunting, they will cooperate'. Another issue with commitment and cooperation is distributed responsibility (Frazer, 1994) that can also be referred to as involvement (European Association of Universities, 2006). Distributed responsibility recognises that everyone in the polytechnics has a role to play in achieving an institutional mandate and therefore should be involved by

having a responsibility for implementation of a quality assurance framework. A lecturer-participant concluded that: ‘when there is sufficient involvement, there shouldn’t be a problem at all’. This shows that involvement, not only of staff but of students as well can promote commitment and cooperation for successful implementation of a quality assurance framework (European Association of Universities, 2006).

Nonetheless, the optimism shown by the participants that the practical implications are surmountable within the internal structures and resources of the polytechnics reinforces the pragmatist theory that the known can be used to reconstitute the known in a new form to solve real problems.

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