ROLE OF CONTINUOUS QUALITY IMPROVEMENT IN HIGHER EDUCATION: LIMITATIONS AND INTERPRETATIONS

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ABSTRACT

Despite decades of study and research, the problem of Continuous Quality Improvement (CQI) in higher education around the world continues to exist. Although academic institutions in developed countries are able to produce graduates with internationally-recognized professional qualifications (in contrast to university graduates from developing countries who must first pass further tests before being considered for a job position in developed countries), universally-reliable benchmarks for ideal teaching methods and CQI initiatives continue to be evasive, even in developed countries. It is the aim of this article to provide an ideal CQI-complemented teaching model for higher education that can be used in both developed and developing countries. The approach of this exploratory study is conceptual, not empirical, as it explores literature on existing CQI models that are utilized in academic institutions today. The concepts of Plan-Do-Study-Act (PDSA), Scholarship of Teaching and Learning (SoTL), Outcome-Based Education (OBE), and Continuous Quality Improvement (CQI) possess positive attributes that should not be disregarded, but instead incorporated into an ideal model that makes use of such attributes. Through qualitative analysis, the findings show that educational systems are trying to improve the quality of teaching methods that may not always match the different learning capabilities of the students. For this reason, this paper suggests an innovative CQI-complemented teaching framework that can effectively address the problem of CQI in higher education. The model can be further improved in future studies that explore more effective adoption and merging of PDSA, SoTL, OBE, and CQI principles into the proposed model.

Keywords: Continuous Quality Improvement (CQI); Teacher Centered Learning; Student Centered Learning; Outcome-Based Education (OBE).

1.   INTRODUCTION

The principles of Continuous Quality Improvement [CQI] require significant transformations in the traditional education system that has governed the academic industry for centuries. Similar to all processes of change, resistance may be expected from some of the stakeholders, particularly those who have been accustomed to time-honored principles and practices in the education sector. In this regard, it is stated by McLaughlin and Kaluzny (1994) that academic institutions find it difficult to implement top-down changes in curriculum because it involves the cooperation of educators who must abide by the corresponding changes in pedagogical methods in light of the changed curriculum. Unless the educators are convinced of the positive effects of the changes to the learning process, successfully implementing new teaching approaches would be difficult (p.253). Before Continuous Quality Improvement can be effectively implemented and developed in the education sector, an ideal teaching method should first be identified and later built upon through CQI. All stakeholders must perform their roles and responsibilities in accordance with the most appropriate teaching and CQI

model that incorporates attributes of existing models that are suitable to the local environment.

1.1. Development of Educational Methods

The effectiveness of any educational institution depends upon the competence and abilities of the educators. No matter how well pedagogical principles promote quality teaching methods, the final outcome will always be the product of good teaching skills. It is in this context that Nair, Webster, and Mertova (2010) argue that effective implementation of new standards in pedagogy would depend on the level of compliance of educators to new teaching norms; such academic standards must convince educators that the new program would result in better outcomes for both the students and the teachers (p.148). Unfortunately, not all educators embrace new concepts and methods of teaching. Teachers are especially wary of changes to pedagogical methods that they are accustomed to, particularly when university administrations advocate the changes. It can be stated that such unfavorable reaction to change is descriptive of human nature, and in this instance, teachers generally argue for academic freedom (Nair, Webster, & Mertova, 2010).

1.1.1. Facilities improvement

It should also be recognized that the effective application of Continuous Quality Improvement is largely influenced by the quality of available facilities within the learning environment. In this aspect, Ololube (2016) states that in the United States, accreditation institutions are utilized to audit the effectiveness of schools in terms of the curricula and the availability of good classrooms, libraries, laboratories, and other facilities of the school which contribute to the learning process (p.150). Accreditation institutions similarly focus on the competence of the educators since the facilities would be rendered useless without the presence of good teachers. It is through a combination of professional educators and excellent educational facilities that CQI principles can effectively be delivered, as cited by Sinha (2004) that although the teaching process can be enhanced by the quality of facilities which promotes an ideal learning environment, education will always be driven by a combination of people and information.

1.1.2. Teacher-Centered Learning and Student-Centered learning

Teacher-centered learning has been the traditional method of instruction in educational systems worldwide for the past several centuries. This traditional type of instruction situates the teacher as the central source of information which is directly presented to the students and retained in memory through repetition in lectures and/or memorization of notes. As such, learning can only be acquired from whatever the teacher presents to the students and there are no other avenues for the acquisition of new knowledge (Spooner, 2015 p.23). Although this method of teaching has produced graduates who are well-equipped with knowledge and skills for their chosen profession, other pedagogical practices are becoming more common in learning institutions around the world, particularly in developed countries. Through the student-centered approach, educators perform the crucial role of facilitators as they guide learners toward new knowledge that is acquired through personal experience instead of direct presentation of information. In the student-centered approach, teachers motivate students to personally discover new knowledge and, as a result, learning becomes a responsibility of the student (Spooner, 2015).

1.1.3. Enhanced assessment methods

Traditional assessment methods have always been grounded on the traditional practice of teacher-centered instruction. The transformation of the educational model of teaching naturally provides for new methods of assessment as they pertain to CQI principles. In this aspect, Dew and Nearing (2014) cite that CQI methods should give greater attention to the use of a systematic approach for evaluation and continuous improvement, more than the actual model for learning (p.167). In the new assessment model, not only should the learners be assessed for their academic aptitude; the CQI model itself should be regularly assessed by internal and external evaluators. In this context, it is crucial to implement correct assessment methods that are continuously improved so that the academic curriculum structure may soon develop into a continually improving benchmark not only for the educational institution itself but also for other institutions to follow (Tang & Logonnathan, 2016 p.185).

1.2. Requirement of CQI to be Improve

Different educational institutions have different organizational environments which require different management approaches. In view of the diversity in sociocultural environments, each educational institution must conduct research that is relevant to the existing socioeconomic landscape so that a CQI initiative that is best suited for their own purpose can be developed. Standard or universal CQI policies and procedures cannot be implemented uniformly in schools, especially in developing countries where the sociocultural environment differs from the circumstances in developed nations such as the United States and other countries with high-performing economies. Despite the differences, there is a need for all educational institutions to employ quality improvement methods and to share lessons learned from their experiences so that future research on the topic can have empirical basis for further improvements that can benefit other institutions (McLaughlin & Kaluzny, 1994 p.404).

1.2.1. Facilities

Nations with high-performing economies are more likely to be supported by academic institutions that have excellent educational facilities for its student populace. With this in mind, it follows that schools in developing nations have facilities that are less capable of delivering high quality education. Through CQI, weaknesses in the curricula are revealed, including the need for better facilities, especially in less-developed nations. It is stated by Kauvar and Hruza (2005) that through an analysis of CQI, the strengths and weaknesses of an educational institution can be revealed, allowing for a more critical and analytical approach of the situation (p.766). Due to the lack or absence of facilities that are at par with the best institutions, it would be difficult for less-privileged schools to produce graduates that are as skilled and knowledgeable in their respective fields. Through continuous analysis of CQI, it can become evident that further along, improvements in quality can only be achieved by setting benchmarks on the availability of facilities similar to those in developed countries. It is in this context that CQI efforts enhance the quality of education on a global scale as standards in academic facilities provide guidance for less-capable schools.

1.2.2. Job opportunities

Continuous Quality Improvement in higher education requires the application of innovative pedagogical practices that specifically apply to the existing sociocultural environment. This presents educators with an opportunity to apply different instructional methods and

approaches that they have never tried before. Aside from the fact that such innovative approaches can be a rewarding experience to learners, CQI allows educators to enhance and develop professional competence in teaching. As stated by Enstrom (2007), Continuous Quality Improvement should provide a new learning experience not only to students but to teachers as well, and as teachers become willing participants in the CQI program, they begin to see students from a different perspective (p.217). As such, the chance to develop teaching skills and be involved in exciting new ways of learning should be a welcome approach to teachers and students alike.

1.2.3. Skill development

Like all management approaches, the effectiveness of CQI efforts is evidenced by its outcomes. In this aspect, the evaluations of academic performance of students reveal whether CQI helps in enhancing the learning experience or not. Trends in academic improvement through better teaching methods should be incorporated into the curriculum. In light of this, Rosen (2016) cites that data on student assessment results can be used by university administrations in designing and developing training programs for teachers to further improve competence and professionalism among their ranks (p.183). With CQI, educators discover new ways to practice the teaching profession while enhancing the learning experience of students and producing better outcomes. It is also stated that collaboration between teachers can be especially helpful in identifying best practices, and that collaboration should not be limited within an institution but between different schools. In this context, it should be noted that the potential for quality improvement is magnified when national boundaries no longer constrain the collaborative effort, and CQI information is shared between educational institutions on a global scale.

1.2.4. Assessment methods

While it is crucial to evaluate the academic progress of learners within the CQI program, it is equally important to assess the quality of the CQI program itself. In the same manner, it is mentioned by Braveman (2016) that the evaluation of students' academic progress should coincide with CQI goals, and this requires the active participation of teachers in the accomplishment of such goals (p.308). As mentioned earlier, this can be a problem because not all teachers are motivated to comply with new pedagogical approaches that are advocated by university administrations. In this regard, the extent of compliance would depend on the commitment of the institutional leadership to pursue CQI initiatives and secure the corresponding support of teachers. At the end of the day, the success of new assessment methods highlights the role of the management in promoting CQI principles and practices.

2.   PRESENT STATE OF CQI IN HIGHER EDUCATION
2.1.   Overall awareness of CQI

Presently, Continuous Quality Improvement in higher education is a highly-recognized pedagogical approach in developed nations around the world. Although many developing countries are in the process of incorporating the CQI method into their educational system, these methods are not as effective as those employed in developed nations which have become centers of academic research. In line with this, Hodgson and Pelzer (2017) cites that "accreditation in the United States is a peer-reviewed system in which … educational program is assessed by people who are knowledgeable in the field to assure educational quality and a system of continuous quality improvement" (p.350). In this context, it can be

observed that educational trends in the Western world lean towards the CQI method. Similarly, Nuninger (2016) cites Brennan and Shah (2000) who state that "over the last decade, almost all European countries have established national systems for the assessment of quality in higher education". Similar developments can be found in many other parts of the world.

2.1.1. Developed Nations

As previously mentioned in an earlier section, developed countries employ Continuous Quality Improvement initiatives in higher education more effectively than those in underdeveloped and developing nations. CQI initiatives have been effectively disseminated in European countries since the turn of the century because globalization provides an excellent platform for the exchange of information between nations. In this aspect, it is mentioned by Nuninger (2016) that "since 2004, an educational program for managers, developers, policy makers, and administrators has been implemented at Graz University in Austria … Similar initiatives creating developmental curricula were successful earlier in Vienna and later in Salzburg" (p.176). Therefore, "to effectively manage the positive effects of globalization and to hedge its negative societal consequences, the need for trans-national collaboration among universities enjoys growing importance" (Nuninger, 2016 p.176). This means that developed countries can support less capable nations in matters of quality improvement.

2.1.1.1. Literature survey

In developed countries, it is stated by Rice and Taylor (2003) that educational institutions which have been using CQI approaches "are finding them to be proven methodologies for increasing effectiveness and building institutional agility. The broader higher education community would benefit from opportunities to learn more about the concepts and best practices of institutional effectiveness strategies" (p.10). As stated earlier, developed nations can assist other countries in designing effective strategies that can potentially transform traditional educational landscapes. Globalization makes the transfer of information more likely, and it is possible that given sufficient time, all educational systems around the world may soon employ CQI approaches that enhance the learning experience of students while strengthening the institutional foundation of schools. Ultimately, global application of CQI in higher education would depend on the sharing of information between developed and developing countries.

2.1.1.2. Existing models

In view of the different sociocultural and educational environments of academic institutions around the world, it is not surprising that different models need to be employed in different cultures or societies. In this aspect, Rice and Taylor (2003) mention that "many institutions focus on the use of metrics, key performance indicators, and a balanced scorecard approach as methods of sustaining strategic planning and continuous improvement in the areas of student academic performance, enrolment, faculty and staff satisfaction, and financial resilience" (p.8). It is further stated that "benchmarking models in higher education are beginning to emerge, and some are on the verge of establishing best practices and benchmark standards throughout higher education" (*ibid*, p.10). Although such institutions may arrive at ideal models for their educational system, it does not necessarily follow that their benchmarks

would be applicable universally. This means that schools must evaluate their learning environments and learn from the experiences of institutions with similar experiences.

It was Walter Shewhart who first advocated the application of quality control in business processes in 1930 and this paved the way to development of the Plan-Do-Check-Act [PDCA]; the PDCA, in turn, was modified by W. Edwards Deming in the Plan-Do-Study-Act [PDSA] method (Dima, 2013 p.86), as presented in Fig. 1. Also called the Deming Wheel or Deming Cycle, the 'Plan' stage requires the identification of the problem and the formulation of an improvement plan; the 'Do' stage requires the implementation of the plan; the 'Study' stage requires assessment of the effectiveness or ineffectiveness of the plan; the 'Act' stage requires the institutionalization of quality improvement and the continuation of the cycle.

The application of the PDSA approach can be complemented by the Scholarship of Teaching and Learning [SoTL] method, a quality improvement scheme that was originally designed and proposed by Ernest Boyer in 1990. The SoTL method first gained popularity in the North American continent and has since become recognized internationally. Conceptually, it is "seen as the product of a systematic study of teaching and learning which differs from 'scholarly teaching' in that it takes a form that lends itself to public sharing; it can also be applied and evaluated by others" (Land & Gordon, 2013 p.4). It is further stated by McKinney (2006) that "the scholarship of teaching and learning … involves systematic study of teaching and/or learning and the public sharing and review of such work through presentations, performance, or publications" (p. 39).

Figure 1: Plan-Do-Study-Act Cycle proposed by W. Edwards Deming

2.1.1.3. Limiting factors

One of the most evident limiting factor of the PDSA and the SoTL is that the said methods would require a process of trial and error before an ideal model can be developed. As cited by Hubbard (2003), "In higher education, we don't know if service output is [of high] quality until it's received by the [student]" (p.136). For academic institutions that do not enjoy the same financial liberty as those in developed countries, the process of experimentation can be financially painful. This highlights the need for greater support from local policy makers as well as from the input of academic institutions in developed nations. These limitations, however, can be overcome through careful evaluation of existing conditions within schools so that errors in implementation can be minimized, if not completely avoided.

2.1.2. Developing Nations

Many developing nations have adopted the PDSA and SoTL methods in an attempt to keep pace with the educational standard in developed nations. Nonetheless, the Outcome-Based Education method continues to be the approach used by developing countries in improving the quality of education in the midst of challenges that must be overcome to improve the system. These challenges include: "the lack of a common vision for the university or course of study, quality assurance processes that are in isolation from one another, and the lack of a clear quality assurance procedure focused on continuous quality improvement" (OECD, 2016 p.264). For instance, the situation in Latvia is similar to the circumstances in many other developing nations around the world which experience difficulty in improving quality due to the financial requirements that it entails. Therefore, it becomes more problematic to elevate the level of quality of education in developing countries without external help from the government.

2.1.2.1. Literature survey

In recent years, cultures have witnessed the rise of quality improvement methods in almost all sectors of society. Among these methods, the Continuous Quality Improvement approach has been at the forefront of social upgrade. Organizations that are unable to improve their processes are bound to be replaced by new and innovative institutions that conform to public expectations. It is in this context that academic institutions are compelled to improve themselves in the face of social scrutiny, as stated by Zajda (2005) that "in many developing countries, rising graduate unemployment, inadequate performance on the job, and weak research production combine to bring the relevance of universities to national needs under growing public scrutiny" (p.162). This highlights the need to align educational systems with existing needs of the nation, and because different countries have different needs, finding the ideal CQI approach can be a challenging task.

2.1.2.2. Existing Models, Governing Bodies, Required Localization

In developing countries, it is proposed that teaching methods in higher education should be complemented by CQI and geared towards national needs (Zajda, 2005 p.162). This means that educational choices within the university should be in tune with the current status of the local economy and responsive to the needs of its labor market. In other words, the design should build upon "a capacity for critical and innovative thinking on issues of national importance, the transmission of essential professional and cultural values, institutional processes, and behavior that equip graduates for leadership in society" (*ibid*). Hubbard (2003) argues that in order to apply continuous quality improvement in the context of the local environment, it is crucial to 'localize' the model to the existing sociocultural scenario. It is important to embrace the needs and expectations of the students in every facet of educational operations as well as in the broad institutional landscape of the national education system (p.284). Towards this end, the Outcome-Based Education [OBE] model, which has been widely-used in developed countries, is seen as an attractive learning model in developing countries (Siran, 2013 p.304). The basic concept of the OBE model is to identify goals or desired outcomes for learning, regardless of the teaching style that is used.

In developing Asian countries such as Malaysia, for instance, it has been observed that previous models inadequately equipped students for life after school, especially in matters pertaining to communication and technical skills that are relevant to the existing demands of

the job market (Ting, 2011 p.20). In this aspect, governing bodies have a major role in improving the quality of higher education through CQI and it is crucial for educators to undergo training in CQI principles which must be applied at every level of the educational institution, regularly monitored for effectiveness or lack thereof, and the results accordingly reported to the governing bodies for appropriate action (Meisenheimer, 1997 p.383). In applying the OBE model, desired outcomes that favor relevant communication and work skills are decided upon by the governing bodies, localized, and incorporated into the curriculum so that graduates may be adequately prepared to fill the job positions that are currently needed in the local economy (Chu, Reynolds, Tavares, Notari, & Lee, 2016 p.17). Similarly, this has been the experience in other developing countries such as the Philippines, South Africa, and Pakistan, among others (Jha, 2012 p.104).

The OBE model favors a student-centered approach to teaching and because many developed countries (e.g. United States, New Zealand, Canada, Australia, and countries in the European Union) have adopted OBE into their academic curriculum, it is easy to understand that developing countries are following suit in the hope of uplifting their academic standards and producing graduates who can compete well in the global economy. It should be recognized, however, that sociocultural and socioeconomic circumstances differ between countries, and it would therefore be inappropriate to employ a universal model in matters of education.

Effective localization of the OBE model is the key to success. OBE, complemented with CQI, must be custom-fitted into the needs of the local economy; otherwise, the OBE model will not work. This is evidenced in the fact that the use of OBE has been discarded by governing bodies in many states and territories in the above-stated developed countries (Pinar, 2014 p.9). Once again, this emphasizes the need for greater evaluation by the institution and support from the local government.

Some of the Universities currently utilizes the OBE method and complements it with CQI to enhance the probability for success. Having studied extensive program structures which are blend of OBE and CQI, we propose an OBE/CQI model appropriate for higher learning institutes as shown in Fig. 2. In this context, the proposed model focuses on three main elements of the educational system: (1) program educational objectives (the attainments of graduates in the industry within 5 years of graduation); (2) program outcomes (knowledge and skills gathered at the end of the program), and; (3) learning outcomes (knowledge and skills by following a subject). Learning outcomes are analyzed through student tests and other academic assessments computed at the end of every semester and complemented with CQI. Program outcomes are analyzed through student tests and other academic assessments computed at the end of every program and complemented with CQI. Program educational objectives are analyzed through feedback from alumni, stakeholders, the advisory committee, and the relevance to the mission and vision of the institution. It is paramount to have key performance indicators to quantify the survey of program educational objectives.
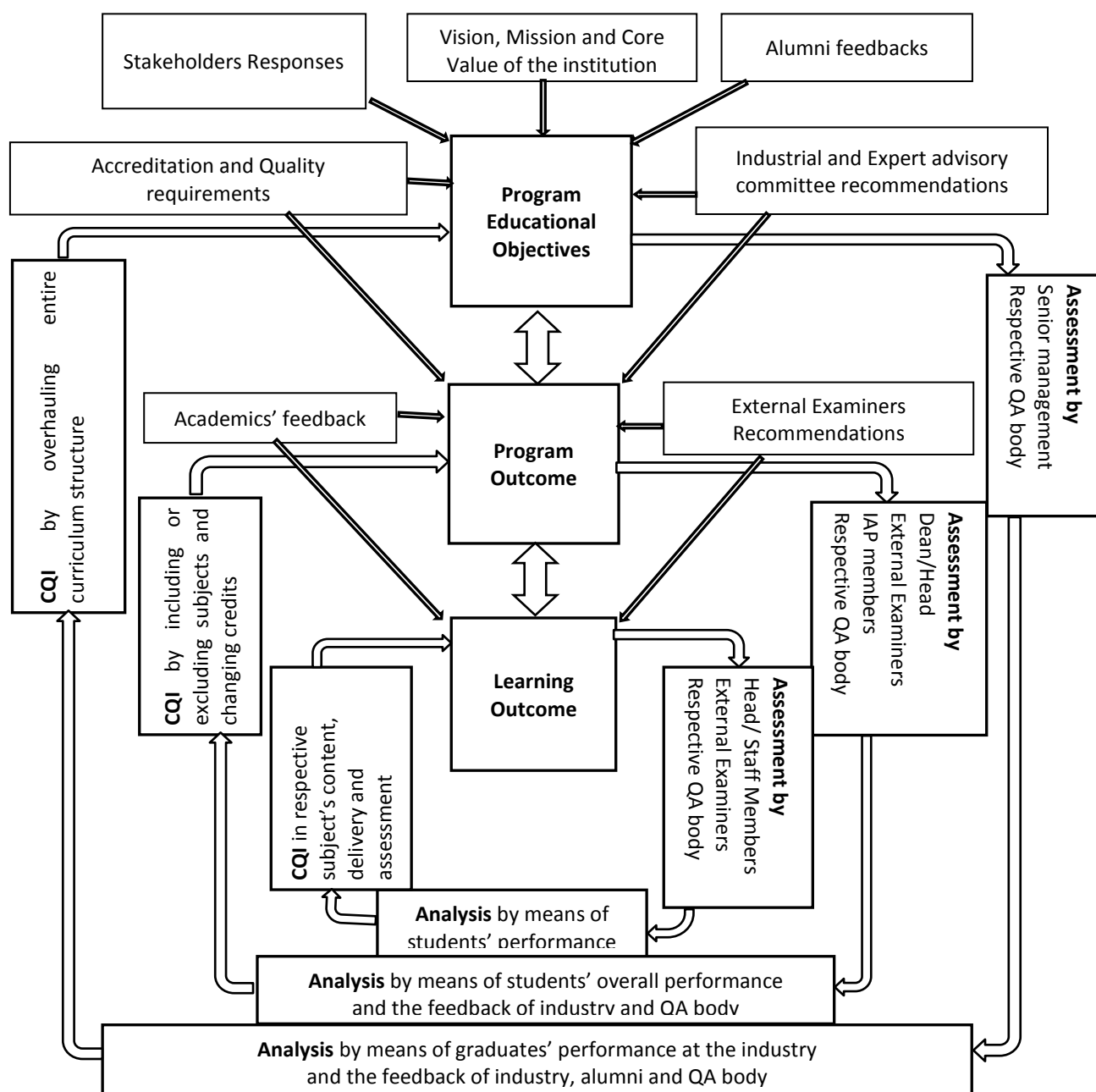
Fig2: Proposed OBE/CQI model appropriate to higher learning institutes

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2.1.2.3. Limiting factors

It has been previously mentioned in this paper that the effective CQI approaches in developed nations cannot necessarily be applied within the sociocultural context of underdeveloped and developing countries. In this aspect, Sollecito and Johnson (2013) posit that "only through further applications will we be able to fully understand which factors will be most successful in adapting the CQI processes of the developed world to other nations" (p.591). The limiting factor of trial and error through an experimentation process would not be as difficult for institutions in developed nations as it would be in poorer economies. Despite the differences, it cannot be denied that there is a pressing need to uplift the quality of education so that economies could improve. In light of this, Sollecito and Johnson (2013) further state that "those who worked in addressing these needs are the new pioneers who will lead the way. The commonalities are greater than the differences, and this will lead to mutual learning through shared research and practice (p.591).

3.   PARTICIPANTS OF CQI AND THEIR ROLE

Good education is a social concern that involves the participation of several stakeholders such as students, staff, employers, governing bodies, and external experts. In this modern age, students in higher education are highly motivated and self-directed; thus, flexible and creative methods of teaching are encouraged (Zhan & Finch, 2012 p.147). The teaching strategies should match prior learning experiences of the students. This means that teaching effectiveness is assessed by students' evaluations and peer evaluations in some institutions. Flexible and creative teaching methods are reflective of the student-centered approach where learners occupy the center stage in the educational system. Nonetheless, students will be unable to benefit from the system if the staff members are ill-equipped to provide their educational needs.

As such, there have been numerous studies conducted which aimed to identify best practices for teachers to enhance the learning experience of students (Dew & Nearing, 2014 p.167). As previously mentioned, many educational institutions give greater attention to the availability of good facilities that are technologically at par with those in developed countries. Aside from the provision of good facilities, "others are opting for problem-based learning methods that engage students in active inquiry that leads to learning outcomes; still, some institutions have chosen the reading of 'great books' to stimulate critical thinking, others are engaging students in service-learning projects" (Dew & Nearing, 2014 p.167). While optimizing the learning environment, educational institutions in developed countries improve and/or sustain their academic reputation through accreditation from government-recognized external experts.

Internationally-recognized accreditation bodies provide accreditation to higher education institutions irrespective of the country and stream. The International Network for Quality Assurance Agencies in Higher Education [INQAAHE] and the Council for Higher Education Accreditation [CHEA] are associations with member organizations that are recognized

internationally. Currently, the INQAAHE has a membership of over 280 quality assurance organizations around the world. Similarly, CHEA collaborates with governments and accreditation bodies on a global scale.

The mission of the INQAAHE is "to promote and advance excellence in higher education through the support of an active international community of quality assurance agencies" (INQAAHE, 2017). In the same context, the advocacy of CHEA is to be "a forceful and articulate advocate for voluntary accreditation of higher education to the public, government, and other interested individuals, groups, and countries" (CHEA, 2017). CHEA is a non-governmental organization based in the United States.

To be recognized by accreditation bodies from INQAAHE and CHEA, an educational program must have an effective CQI process in place. It should also be noted that "employers use accreditation as a guide during the hiring process, as it ensures that the graduates of accredited programs have attained the necessary knowledge and skills required practicing their profession" (Natarajan, 2015 p.26). It should further be noted that "institutions with accredited programs demonstrate a commitment to quality education which helps attract strong students and faculty. Accredited programs enjoy global recognition, thereby facilitating the mobility of graduates and students" (Natarajan, 2015 p.26).

The accreditation bodies collaborate with local and global industries so that needed skills in the labor market can be identified and appropriately addressed in the curriculum. Governing bodies have a crucial role in this regard because compliance with accreditation requirements emanate from their efforts. The function of governing bodies for higher education is to receive and act on quality-related information regarding CQI principles such as coordination and measurement of quality and job roles and responsibilities to carry out strategic directives to achieve quality improvement (Schmele, 2005 p.335).

4.   PROPOSED/RECOMMENDED MODEL OF CQI

Independently, the existing CQI and teaching models presented above possess positive attributes that can potentially enhance the learning experience of students as well as the professional competence of educators. However, despite decades of practice, issues in quality continue to be a hurdle to desired outcomes in educational institutions, both in developed and developing countries. This section proposes a teaching and CQI model that can combine and incorporate the positive attributes of the PDSA, the SoTL, the OBE, and the CQI to provide a well-balanced approach to the enhancement and continuous quality improvement of higher education in developed and developing countries. We propose a CQI model to realize the learning outcome presented in Fig. 3. It is designed to enhance the optimal accomplishment of learning outcomes by appropriately mixing the active and passive components of learning through an ideal curriculum that helps to accomplish what has been difficult or impossible with the traditional educational model.
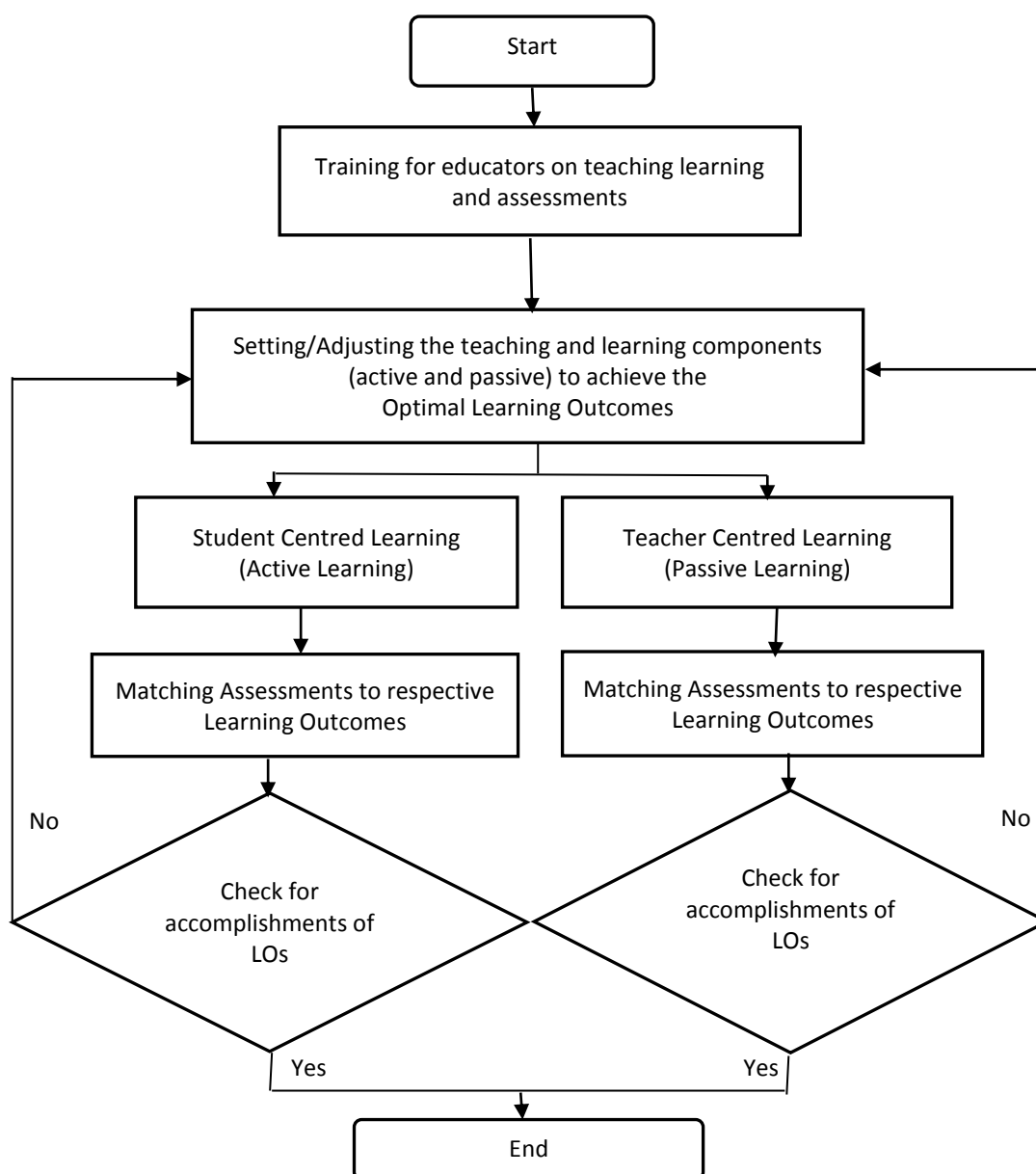
**Fig 3: Proposed Model for CQI mechanism to accomplish
the optimal blend of active and passive learning components**

We argue that conventional teaching models have been unsuccessful in continuously improving the quality of higher education because no specified methods of teaching are required and teachers have the freedom to use whatever teaching method they are accustomed to, whether teacher-centered or student-centered. It should be recognized that despite the innovative nature of the student-centered approach, there will always be students that will be more receptive to the teacher-centered model since their learning capabilities are attuned to such an approach. Because of this, educational institutions must be capable of providing either of the two teaching models, depending on the learning enviornment of the students. Whatever teaching method is used, a corresponding CQI assessment should be present.

As presented in Fig. 3, the proposed model begins with training for educators and a corresponding assessment of their teaching skills. In this regard, training and assessment in

both teacher-centered and student-centered approaches should be provided by the university administration so that teachers can be more flexible to the learning needs of the students. The assessment results should identify which teachers are best-suited for either of the two teaching approaches.

After this stage, two trial classes [preferably two to three hours in duration per class] with students are to be conducted, one for the teacher-centered approach and another for the student-centered approach. A test shall immediately be given at the end of each class and the test results shall be released on the same day. Following the release of the test results, each student shall be made to choose which of the two teaching methods he/she prefers. The choice will dictate the type of program that will be provided to the student for the entire semester.

At the end of the semester, assessment of student performance will reflect not only the academic progress of the students but also the effectiveness of the teachers in providing the type of teaching method that was required. The current skills of the teachers, whether in the teacher-centered approach or the student-centered approach, can further be improved with the continuation of the cycle as educator training and assessment is once again conducted for the following semester. The students, on the other hand, can opt to shift to the other teaching method after undergoing the new round of trial classes and assessment. In this manner, there shall be greater responsibility for learning and continuous improvement on the part of the students.

It is posited by Finkelman (2017) that any educational institution should typically have "some type of structure within its organization that guides its CQI activities … Engagements at all levels of the organization is important … Who participates, how, and when may vary but this all must carefully be considered" (p.312). The structure which provides guidance to CQI initiatives that Finkelman pertains to is provided in the above-cited proposal. The active involvement and commitment of the participants, however, shall ultimately dictate the outcome or the degree of success of the proposed model.

5.   DISCUSSION

The active roles of the participants or stakeholders are vital in ensuring the success of the ideal framework that is presented. These participants include the students, the staff, the employers, the governing bodies, and the external experts or the accreditation bodies. With the proposed model, the heightened sense of responsibility for learning among students should enhance the learning experience. As mentioned by Meisenheimer (1997), "This sense of being responsible for one's own learning as well as that of one's classmate can transfer into practice such that students will willingly share their knowledge in a caring way, rather than selfishly withholding their knowledge from peers" (p.319). In the proposed model, students have the freedom to choose the teaching method that best supports their learning capabilities. Considering the fact that student with the same learning preferences would be grouped together, the potential for a more fluid, supportive, and collaborative learning environment is magnified. In this aspect, it is stated that "learning activities in a CQI educational program should be developed using the strong sense of support students enjoy from each other to enhance knowledge acquisition, thus encouraging camaraderie rather than competition among students" (Meisenheimer, 1997 p.319).

For the staff, it can be observed that the proposed model provides a platform for mentoring, either in the teacher-centered or the student-centered teaching style. This is supported by the argument of Zhan and Finch (2012) that "a mentoring program to assist faculty as they progress in their career is imperative … An established set of faculty competencies is used to prepare individuals for the faculty role and to help faculty maintain competence/expertise in their roles" (p.147). Through the periodic educator training and

assessment, the process of mentoring is adequately planned, communicated in a timely manner, has a fair and comprehensive platform for performance assessment, and continually improves the quality of teaching, thus creating a less stressful working environment for the teaching staff (*ibid*).

Input from employers and governing bodies can help the university administration in designing the training program for teachers as well as the curriculum content for the students. This is aside from the practice of on-the-job training that employers can extend to the students. In this aspect, it is stated by Meisenheimer (1997) that "the employer's interest in learning tailored to the workplace, in contrast to more general academic preparation, stems from the fact that on-the-job learning directly supports the employer's organizational culture and strategic goals" (p.319). In the implementation of CQI in the education sector, governing bodies, on the other hand, "require quality to be built into the process, which reduces variation and emphasizes prevention rather than inspection" (Di Lima & Johns, 1998 p.246).

To ensure that CQI initiatives are appropriately addressed, external experts should be invited to assess the performance of the school on a periodic basis, preferably before the start of the semester so that this can coincide with internal assessment for teachers and students. Such external assessments should come from recognized accreditation bodies. This should include "third-party oversight or evaluation of the local resident education process … This involves designated reviewers visiting the program and interviewing participants to create a report on local training as compared to pre-established standards" (Dent, Harden & Hunt, 2017 p.24). The results of the external and internal assessments can be shared with the community of universities, in accordance with the goals and ideals of the SoTL.

6.   CONCLUSIONS

The concept of CQI in higher education is built upon a continuous cycle of improvement that impacts the learning experience of students as well as the teaching competence of educators. To enhance the potential for success of CQI initiatives, university administrations play a vital role that can dictate the success or failure of any CQI program. Foremost among their responsibilities is the creation of a teaching model, as presented and proposed in this paper. Secondly, it is the responsibility of the administration to advocate the new program and ensure compliance from all its teaching staff. Initial resistance from some teachers should be anticipated and prepared for because human beings inherently resist change due to the uncertainty that it brings. With periodic training for teachers, the transition to new methods of teaching and assessment can proceed more smoothly. To improve the proposed model, future research can help in developing a better framework that more effectively combines the positive attributes of PDSA, SoTL, OBE, and CQI so that the quality of education can continuously be enhanced, even better than what the proposed model can offer. Ultimately, it is necessary to implement the proposed teaching and CQI model before learning can be optimized continuously within the educational system of any given local environment.

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