

Quality Assurance in Online Graduate Programs

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ABSTRACT

The focus of this paper is on quality assurance in online graduate programs. The paper first provides a general introduction to the topic of online education, presents an historical background of its emergence, and shares worldwide statistics related to the prevalence of online programs. Next, the paper focuses on the concept of quality and discusses how it has been defined and conceptualized in the literature. Also, quality assurance as a concept and process is discussed before delving into examining indicators of quality of online programs. In addition, the resistance of some universities and certain countries to acknowledge online degrees including graduate ones is examined. The paper concludes with recommendations for policy makers, curriculum designers, program directors, and teaching staff.

Higher education borrowed the concept of quality from commercial settings and private industry (Ryan, 2015). The primary focus of this paper is on quality assurance of online programs in higher education. The paper is divided into seven different sections. The first section provides a general introduction to quality assurance in online graduate programs. An historical background of online education from its inception until the present is presented in the second section. The third section focuses on worldwide trends and statistics related to the prevalence of online programs. This will be followed by an examination, in section four, of the concept of quality and discusses how it has been defined and conceptualized in the literature. Section five builds on the previous section by looking at quality assurance as a concept and process before delving into examining indicators of quality of online programs. Resistance of some universities and certain countries to acknowledge online degrees including graduate ones is

examined in section six. The seventh section concludes the paper by offering recommendations for policy makers, curriculum designers, program directors, and teaching staff.

Introduction

The tremendous and ongoing advances in technology, especially computer technology, have provided and continue to offer novel experiences for learners. Physical distance, often seen as an obstacle, has not distanced learners from teachers. Triumph over distance in learning, has resulted in what is now known as distance learning (DL). With the help of advanced computer technology, distance learning has evolved into a huge sphere of education in which learners from all walks of life and different ages, enroll into and engage in programs of study without leaving the comfort of their homes (Harting & Erthal, 2005). Distance learning has become very attractive for many people, especially those with a desire and self-discipline to continue their education without interrupting their careers. Many professionals and daytime workers find distance learning valuable because it conveniently takes place outside of their work schedule. Distance education (DE) provides flexibility in terms of hours devoted to studying, and learners often find it very efficient because they can schedule their own program of study. Those who had not had the opportunity to complete their education before embarking on their careers suddenly have a chance to study and gain skills in their chosen area or increase their knowledge by pursuing a university degree online. DE is becoming more and more common in higher education institutions. In 2019, 7,313,623 students were enrolled in distance learning college-level courses in the US (“National Center for Education Statistics” 2021). The global online course usage rate among university students was 49% in 2015 (Duffin, 2020). With the Covid 19 pandemic challenge, many educational institutions had to launch their online teaching programs

(Soni, 2020). In 2020, around 1.6 billion students in 194 countries had to stay home due to the pandemic (Aristovnik et al., 2020) and institutions previously providing face-to-face education switched to online teaching.

Nowadays, distance learning addresses the educational needs of K-12 students, and virtual schools are becoming commonplace. Virtual schools enable children, grades K to 12, to learn entirely online or through blended learning opportunities (Rice, 2019; Molnar et al., 2019). The number of virtual schools is increasing each day. In 2017-18 school year, 501 full-time virtual schools served nearly 300, 000 K-12 students in 39 states in the US (Molnar et al., 2019). In 2019-20 school year, the number of fully virtual schools increased to 691 (“National Center for Education Statistics” 2021). Full-time virtual schools do not require learners to attend courses at a physical building; instead, they take online classes to graduate. In 2015, overall, 2.7 million K-12 learners were involved in online learning in the US (Barbour, 2017). The emergence of pandemic Covid 19 impacted learners in different ways and, as of September 2020, 67 % of adults with under-18 children attending school stated that classes switched to online learning format (NCES, 2020).

K-12 students’ involvement in distance education is not new around the world. *School of Isolated and Distance Education* in Australia was established as a correspondence school in 1918 and has been serving K-12 students since then (<https://www.side.wa.edu.au/#>).

Various arrangements of DL allow learners to construct their own schedules in synchronous, asynchronous, or blended fashions. Synchronous distance learning provides real-time instruction and learning opportunities via real-time collaboration technology such as video conferencing. This type of DE is similar to face-to-face learning in traditional classrooms (Malinovski et al., 2014). Asynchronous distance learning serves instructors and learners who are apart by time and

location. Technology supports such as streaming video, social media, discussion boards, and emails help learners in asynchronous DL (Malinovski et al., 2014). In blended learning, only a portion of the educational experiences are provided online (Duhaney, 2004). A variety of forms of distance learning are available for those who seek education. Various e-learning platforms, also known as Learning Management Systems (LMS), such as Sakai, Moodle or ILLIAS (Almohammadi et al., 2017) are available to ensure quality online educational experiences for learners. The next section provides an historical background to online education programs.

Historical Background

The first form of distance education depended on publishing and postal services. It involved the use of correspondence service in delivering printed course materials to learners (Simpson & Anderson, 2012). In 1700s, some courses, advertised in local newspapers, were offered through correspondence. Learners were sent the course materials via postal service and they were required to respond back via the same service (Harting & Erthal, 2005). A part of the learner population, then, comprised of women who were confined to their roles at home, due to the traditional views of the time. Those seeking professional training also used such distance learning opportunities. In a sense, this was a type of correspondence education (Harting & Erthal, 2005), and the major technology support needed for distance learning then was the postal technology. The practicality of learning through correspondence gave way to education via correspondence, which was the trend of that time. An early example of distance education efforts, which evolved into Correspondence School, was that of Anna Elliot Ticknor's in 1800s' Boston (MacKenzie & Christensen, 1971). Her contemporary, T. J. Foster's teaching efforts through correspondence culminated in the the establishment of the International Correspondence

Schools (MacKenzie & Christensen, 1971). In Britain, both Oxford and Cambridge universities offered correspondence education through their extension services in the 1800s.

“Correspondence University” was opened in New York in 1883 (Harting & Erthal, 2005). The possibility of receiving education via correspondence excited a large portion of the population, and legislation to guide those efforts was issued in the 1900s in the US (Harting & Erthal, 2005). When Britain’s Open University began to offer correspondence classes and degrees, the number of students enrolled in this distance program reached 24,000 (Perry, 1976).

Over time, the advances in technology allowed different means to be utilized in distance education. With radios, the audio component in distance learning helped support the learners (Sumner, 2000). Use of tapes and recording technology was a great contribution for distance learners, most notably flexibility; learners could now listen to lectures any time they chose (Keegan, 2013). Later, television became the new technological means of distance education. What postal correspondence and radio did was taken over by this new tool and distance learning had a new venue to reach the masses (Harry, John, & Keegan, 2013).

Simpson and Anderson (2012) stated that the first generation of distance education involved print and postal service. Now, the introduction of radio and television marked the second generation of DE. Those days, learners were mainly adults who were taking college credit courses through distance education (Harting & Erthal, 2005). With the emergence of digital technologies, computers, and eLearning systems, the distance education that once relied on postal correspondence was carried to higher levels. Some researchers (Taylor, 2001; Simpson & Anderson, 2012) believe this was the new generation in distance learning which was offered by computer-mediated technologies. If technology has made it possible for people to access

education from their homes, the question that begs an answer is this: How widespread is online education worldwide.

Worldwide Statistics

Many universities support MOOCs (Massive Open Online Courses) to provide online instruction for those who cannot afford attending a college on a campus (Margaryan et al., 2015). MOOCs first began with the efforts of two Stanford professors who offered free online courses which were open to the public in 2011 and have rapidly grown to be a popular point of education for learners worldwide. Today, there is a global market of online learners who pay to learn, and there are many universities offering MOOC opportunities. Globally, at the end of 2018, more than 900 universities introduced more than 11,000 new MOOC programs and established approximately 2000 new courses within those programs. In 2018, 20 million new learners enrolled in MOOCs. The number of institutions offering full MOOC-based degrees is on the rise from 15 in 2017 to 47 today, and there is a growing list of MOOC providers worldwide. That means there is a growing demand for online learning worldwide. Global enrollment in MOOCs was more than 100 million in 2018 (Shah, 2019; Shah & Pickard, 2019). With the pandemic Covid 19, many learners switched from face-to-face classes to online learning (Aljohani & Cristea, 2021). Such replacements have likely increased the number of online learners. For example, as a US-based MOOC provider, Coursera increased enrollments by 640% in March-April 2020, compared to the same period previous year (Shah, 2020).

Financial aspect of online learning is also very promising. A 2024 forecast indicates that global online learning market is expected to be more than 247 billion US dollars (Industry Research

Co., 2021). MOOCs which began so humbly in 2011 has grown into a multi-billion business worldwide.

There is also a growing awareness of this type of delivery among educators. Online learning is now a well-established part of university education in many countries around the world. In the pre-Covid 19 period, almost 65 percent of faculty worldwide supported online education opportunities, and the global online course usage rate among students reached 49% in 2015 (Duffin, 2020). Today, “brick and click” universities worldwide provide educational opportunities both on campus and online (Kulakli & Mahony, 2014). With the widespread online education, departments and ministries of education as well as institutions of higher education begin to think about the quality of education that is offered through a non-traditional, on-campus platform. Quality of education and how to maintain and enhance it become a concern.

What is Quality?

We need to establish from the outset that there may not exist a unified definition or measure of quality in higher education, as mentioned in numerous publications in this field (i.e., Seyfried & Pohlenz, 2018; Ryan, 2015; Kahveci et al., 2012; Asif & Raouf, 2011; Nicholson, 2011; Reed, 2011). There are many definitions that exist for quality in the literature, and there are similarities and differences between and across definitions. According to a comprehensive review of the literature of quality assurance conducted by Kahsay (2012), there is a glaring lack of clarity and vagueness about the construct of quality in higher education. To illustrate, Kahsay quoted the different perspectives of how some prominent education experts depict quality as “notoriously elusive” (Gibson, 1986; Neave, 1986; Scott, 1994); “slippery” (Pfeffer & Coote, 1991); “relative” (Baird, 1998; Harvey & Green, 1993; Middlehurst, 1992; Vroeijenstin, 1992; Westerheijden, 1999); “dynamic” (Boyle & Bowden, 1997); “multidimensional” (Campbell &

Rozsnyai, 2002); and “a philosophic concept that lacks a general theory in the literature” (Green, 1994; Westerheijden, 1999).

Realizing the lack of clarity on what quality is, Harvey and Green (1993) (who also appear in the list of prominent education experts above) provide a model that brings some clarity and at the same time helps us at viewing quality in higher education. They consider the five aspects of their model as ways of thinking about quality rather than ways of defining it. The five ways are: (1) quality as exceptional/excellence; (2) quality as perfection or consistency; (3) quality as fitness of purpose; (4) quality as value for money; and (5) quality as transformation.

Quality is considered exceptional or excellent when the highest academic standards and excellence are attained. Since the bar is set so high, few universities who aspire to become world class universities attain this notion of quality. A different but complementary perspective of “quality as exceptional” was offered by Bogue (1998) who thought of it as “quality as limited supply,” which is often used in external ranking of institutions such as the Macleans. Quality in higher education is a result from expertise, commitment, and consciousness of the body of professors in institutions of higher education.

The second way of thinking about quality is perfection or consistency, which refers to an intentional and careful process of eliminating defects to guarantee a consistent and flawless outcome. Quality as fitness for purpose, the third perspective, refers to how an academic institution or program fulfills its stated purpose, mission and goals. By definition, therefore, there will be variations in how educational programs or institutions translate “fitness for purpose” due to the mere fact of having their own unique purposes. Bogue (1998) described this way of thinking about quality as “quality within mission.” Both perspectives point to an institution’s

capability of meeting its well thought-out, stated aims, objectives, and mission, which are usually the focus of internal and external audits as well as accreditation agencies.

The fourth way is thinking about quality as value for money. relates to “quality as value for money” and can be thought of as return on investment. The institution’s aim here is on increasing efficiency by achieving a higher outcome at the same cost or decreasing cost maintaining the quality of the outcome level. This dimension of quality is also a primary focus of external rankings such as the Macleans and is closely related to the institution’s resource orientation. The stakeholders included in this perspective of quality are administrators of the institution, students and their parents. The fifth way of looking quality is “quality as transformative,” which looks at learning is an empowering process that is centered on the student. The quality of learning a higher education program offers is determined by its transformative and life-changing impact on students and faculty. Bogue’s (1998) perspective of this way of thinking about quality is similar as he referred to it as “value-added or quality in results.” Bogue gave the following quoted by Astin (1985, p.9) to further elaborate the underlying meaning of this perspective as the impact “on the student’s knowledge and personal development and on the faculty member’s scholarly and pedagogical ability and productivity.” This way of looking at quality is again a focus of accreditation agencies and employers and the parameters they use to assess quality. One of those central parameters is the quality and quantity of a student’s learning.

The aforementioned ways of looking at quality strike a happy medium and offer a sensible way of viewing, judging and assessing quality. We must also understand why quality assurance has become an increasing need as well as a directive for institutions of higher education, especially for online programs.

Quality Assurance (QA)

An institution's quality assurance (QA) processes reflect its vision, commitment, leadership and its thoughtful planning, and QA has increasingly become a focus in higher education for a variety of reasons. To begin with, developed and developing countries are becoming acutely aware of the importance of highly knowledgeable and skilled citizens to increased productivity and to gaining and maintaining a competitive edge in the global knowledge economy. With countries contributing funds to education also came the need for accountability through the implementation of quality assurance processes. Institutions of higher education find themselves competing for students, so in order to attract students, an institution must establish and maintain a reputation of high quality (Nicholson, 2011). In addition to the increasing calls for accountability, Alomari (2009) gave a number of other reasons for why there is more emphasis on quality assurance in higher education including a spike in the number of students seeking higher education, and those students are getting more diverse and come from all corners of the earth, institutions' search for new markets and going beyond their borders to offer higher education either through setting up satellite campuses or through online education, decreased funding for programs forces institutions to compete for limited resources, and students expect value and quality education for their money.

In the literature, the terms "quality," "quality assurance," and "accountability" are often used interchangeably. Quality is a desired outcome, quality assurance is the means by which we achieve and maintain quality, and accountability is one reason why quality assurance is carried

out by an institution. Kahveci et al. (2012) gave their own perspective of quality assurance and reviewed other definitions found in the literature for it. We'll review Kahveci et al.'s (2012) notion of the term before presenting the other definitions they shared in addition to others that were not included in their paper in order to have a comprehensive view as well as have basis for examining commonalities among the myriad definitions. Upon reviewing the different definitions of quality assurance, it will become clear that some definitions focus on a global or general outcome as an indicator of quality while others concern themselves with identifying specific indicators of desired results such as responsive faculty and staff whose efforts lead to employment of the institution's graduates (Ryan, 2015).

According to Kahveci and his colleagues (2012), quality assurance is an integrated approach that both assesses and supports all the processes involved in higher education. They assert that the support of the institution's management is key to quality assurance success. An institution of higher education also needs to implement information systems to assess information that is gathered about quality assurance process. For the management system and information system to yield positive results, an institution would need to establish a common strategy and ways of enacting it in order to integrate its various activities and achieve the value for money or return on investment for stakeholders thereby gaining a competitive advantage. In short, quality assurance refers to how institutions of higher education maintain their established standards of quality in a reliable and consistent manner. According to the National Assessment & Accreditation Council and Common Wealth of Learning (Mishra, 2007), quality assurance is comprised of the following: (1) every member of the higher institution is responsible for enhancing the quality of the product and services, which in higher education boils down to learning and teaching; (2) everyone in the institution is responsible for maintaining the quality of the product or services;

(3) everyone in the institution understands, uses and feels ownership of the systems that maintain and enhance quality; and (4) the leadership of the institution regularly checks the validity of its quality assurance strategy and how it is implemented. Quality assurance is the responsibility of everyone in the institution. Now, we will examine other conceptualizations of quality assurance that shed light on quality assurance of online higher education programs.

Asif & Raouf (2013), defined quality assurance as a carefully planned strategy with a systematic action plan that is implemented by an institution of higher education to ensure that high quality product and service is reliably and consistently provided to its clientele. An institution will therefore focus its attention on the processes and outcomes yielded by its quality assurance system.

The following is a sampling of definitions compiled by the Yehuda Elkana Center for Quality Assurance in Higher Education at the Central European University, which sheds light on the specific and global focus on quality assurance. Church (1988) defined quality assurance as a process that consists of mechanisms, procedures and processes to ensure that an institutions desired quality is delivered. Barnett (1992) looked at the institution's development of a culture of quality where every member of the institution is aware of his/her responsibility in sustaining and improving the quality of the institution. Green (1944) looked at how a quality assurance process is crucial for a university to become a learning organization. Vroeijenstijn (1992) viewed quality assurance as a systematic and continuous attention to quality by maintaining and improving quality. Likewise, Wilger (1997) viewed quality assurance as a collective process by which an institution ensures that its educational standards of quality education are maintained. Boyle and Bowden (1997) also consider the ongoing nature of quality assurance by focusing on the development and implementation of the institution's ethos, policies and processes in order to

maintain and enhance quality. Woodhouse (1999) also looked at the policies, attitudes and actions and procedures an institution has and undertakes to ensure the maintenance and enhancement of quality. UNESCO (Vlăsceanu et al., 2004) also conceptualizes quality assurance in terms of a systematic review of educational programs that aim at ensuring that standards of education, scholarship and infrastructure are being maintained and improved. The last definition in this compilation is that of Harvey (2004-2007) in which he also conceives of quality assurance as a process of establishing stakeholder confidence that what the institution of higher education delivers meets its stated standards of quality.

Quality assurance in higher education refers to the policies, measures, planned processes and actions through which the quality of higher education programs, including online programs, are maintained and enhanced. Quality assurance can be conducted by national agencies and or by the institution of higher education itself. In the former, the institution is assessed on its adherence to common features of quality assurance. In the latter, an independent body within the institution carries out the quality assurance evaluation. The focus of the evaluation is on all four steps of the quality cycle and their final outcome(s): the plan step which involves identifying a goal or a purpose and determining and planning the processes that are required to achieve the goals and objectives; the theory formulation step, defining success metrics step, and the implementation step in which the plan is put into action. Quality assurance also depends on a set of pre-conditions or assumptions (Mok, 2005). The first assumes that the institution has a well-defined mission and well-articulated goals. The second assumes that the institution's mission and goals are not both communicated and understood throughout the institution. The third assumption is that quality is clearly defined within the context of its mission and goals. The

fourth and final assumption is that the institution has a strong and effective communication network.

In the context of higher education online programs, quality assurance means that the courses in the program meet or exceed the appropriate and established professional standards, that the objectives of the courses of the program are appropriate, that the program's selected methods and available resources for achieving the desired objectives are indeed appropriate and adequate, and that the institution and its programs are continually striving to improve the quality of their courses (Mok, 2005). Moreover, quality assurance of online programs must consider the role of the student as co-constructor of quality. The student's perspective must, therefore, be the starting point of quality development across the various areas of online learning enterprise. According to Butcher et al. (2013), the common aspects that comprise a quality experience in the online learning environment are: institutional support (vision, planning, and infrastructure), course development, teaching and learning (instruction), course structure, student support, faculty support, technology, evaluation, student assessment, and examination security. Despite the various processes and measures taken by institutions of higher education to ensure the quality of their online programs, there is considerable reluctance by ministries of education in some countries to acknowledge and accept online programs and degrees as legitimate. What explains the reluctance and how can it be best addressed? These questions are answered in the next section.

Reluctance to Acknowledge Online Programs

It is clear that online courses and programs are on the increase as they offer flexibility, autonomy, convenience, and lower cost than on-campus, face-to-face education. However, there is reluctance in some countries to acknowledge or accept online degrees. There are many factors

that shed light on the reluctance to acknowledge online programs or degrees by some departments or ministries of education in many countries around the world. An obvious factor has to do with the difficulty envisioning real learning occurring outside the confines of face-to-face interaction in a brick-and-mortar classroom. Skepticism, albeit baseless, about the quality of education one receives online whether provided synchronously or asynchronously. Test security is a big factor that makes some countries suspicious of the value and quality of learning one gains from online courses and the degree one gets from online degree programs. Newton (2015) pointed out that there is a high likelihood of cheating on online courses. He gave some examples of companies (such as No Need to Study) that offer to help students with course work for a fee, which is basically paid cheating for the sake of passing a course without doing any work. Such online cheating companies give online education a bad reputation. Countries or institutions that frown upon online education do so because of stories that emerge here and there about cheating companies, which is all the more reason for online programs to take all measures necessary to combat cheating. An additional factor that fuels resistance to online education has to do with whether an online program is accredited by a recognized international or national agency. In some instances, a graduate of an online program may find an employer who accepts their online degree as a legitimate one. An online degree does not have the same stature as a traditional, on-campus degree, and when it does acquire the same esteem, online education will exceed its global industry boundaries. All these factors, in addition to need for online education amid current Covid 19 pandemic, attest to the necessity of quality assurance and to the institutions' responsibility to provide proof of the processes it has in place to assure quality.

Recommendations

Based on the literature review of online programs, quality, and quality assurance, program evaluators must ensure the following: the online program must offer clear and rich evidence or multiple indicators of both performance and improvement, activity and achievements; the program is actively using performance indicators to make informed decisions about policy, program, and personnel; the indicators of quality and performance affirm and advance both the institution's and program's stated mission; that the quality assurance system used to evaluate the program has a built in purpose to minimize or eliminate duplication of effort (such as in the case of courses that cover similar content) and increase the usefulness of the decisions made; that there is a buy-in for the mission and goal from all members involved in the program; that items in the quality assurance assessment correspond to teaching and learning and their realized outcome; that the program is not limiting itself to its experience and own faculty and seeks to broaden its scope by taking advantage of external standards and evaluations to further improve quality. To ensure that the above recommendations are in place, many institutions who have online programs enlist the assistance of Quality Matters (QM), which is a U.S.-based leader in quality assurance for online education. QM uses a peer-reviewed and continuous evaluation approach for teaching and learning online (Ryan, 2015). Its tools and processes such as the Quality Matters Rubric is a tool that is widely used set of standards that are used to design online & blended college courses.

Recommendations for policy makers, curriculum designers and faculty as well as administrators or state or ministry of education officials include ensuring that faculty are willing and ready to participate in the quality matters process by communicating and describing the process in clear and transparent manner. The institution needs to gradually cultivate a quality culture through a shared vision that all feel a part of and responsible for. Another recommendation is related to the

use of technology and ensuring that faculty and students are trained adequately how to use computer technology and programs through which teaching and learning occur. It is also important that students take part in the quality assurance process and seeking and using students' evaluation of the programs they take. Students' input into the quality assurance process should be at the core of the institution's strategic plan. Institutions must adapt and do so swiftly because technology is changing the educational environment from brick and mortar to brick and click.

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