

QUALITY MANAGEMENT IN ONLINE EDUCATION

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Abstract

This paper addresses the main challenges that the management of higher education institutions must consider to ensure the quality of online educational processes. The paper highlights the place of online education in the context of distance education and argues the need to discuss online education as a permanent way of carrying out teaching activities in universities and not as a state of exception. The paper proposes for discussion five categories of factors considered by the authors as influencing the qualitative level of the online teaching-learning processes. Also, the paper expresses the fact that the theoretical and practical approaches related to the evaluation of the quality of education carried out through information and communication technology are still at the stage of validation to identify the most appropriate and relevant indicators for expressing the quality of online education.

Key-words: *quality management, higher education, on-line education*

JEL Classification: I2; I23

1. Introduction

Online education is no longer a trend, as it was expected in the 2000s, but has become a reality. Relevant studies such as: *Global Higher Education Market 2016 - 2020*; *Going the distance: Online education in the United States* (Allen & Seaman, 2011); *Study looks at online learning vs. traditional instruction* (Angiello, 2010), *Post-secondary educators' professional development: Investigation of an online approach to enhancing teaching and learning* (Schrum, Burbank, Engle, Chambers & Glassett, 2005) and others, revealed aspects such as:

- In the fall of 2012, 69% of those who held management positions in higher education in the USA, affirmed that online education is a relevant component of the long-term organizational development strategy, considering the fact that of the 20.6 million of existing students at the time, 6.7 million were enrolled in online courses (32.52%). Moreover, this represented an upward trend in the number of students participating in online courses compared to the previous period.

- Many higher education institutions appreciate online education as a way to offer quality educational services at low costs;

- Between 1995 and 2003, a higher rate of increase in the offer of online courses is observed compared to the growth rate of traditional courses and the number of online courses almost tripled.

Without insisting on the evidence, we can formulate the conclusion that online university education is a reality that was not determined by the pandemic context that society went through - it only highlighted a new reason why online education is necessary and, above all, forced the entire academic environment to turn to this form of education. In fact, the current economic-social context - characterized by the transformation of higher education into mass education, by the need for lifelong learning, by the existence of a large number of non-traditional students, by the need to have a job during the years of study, through a high degree of mobility of human resources etc. - requires the use of information technologies for the development of higher education processes in accordance with the social reality in which we live.

The present work addresses the issue of quality management of didactic activities carried out online so that the educational processes carried out in this way reach their maximum potential. Among the aspects that the management of higher education institutions

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that carry out online didactic activities must address are: ensuring economic efficiency; ensuring and maintaining a quality educational process; ensuring fair access for all students to teaching activities; underpinning practices and working procedures that can enable online learning to be sustained and developed as a core activity in university teaching and learning.

2. The evolution of on-line education

The online educational process is a form of distance education, defined as a teaching method in which the student and the teacher are physically separated. Distance education is not a form of development of the educational process that we appreciate as specific to contemporary society. Thus, Isaac Pitman is recognized as the pioneer of distance education, as he began teaching shorthand by correspondence in 1840 in England. Pitman sent postcards to students instructed to transcribe passages from the Bible and return them by mail for correction (Verduin & Clark, 1991). Thirty years later, in 1873, Anna Eliot Ticknor founded the Society for the Encouragement of Home Study in Boston which founded the correspondence school model. A year later, Illinois Wesleyan College became the first academic institution to offer "in absentia" degree programs (Emmerson, 2004). Subsequently, the need for correspondence education continued to expand until the early 1900s, as a number of barriers (family obligations, financial, geographical etc.) prevented obtaining a degree from a traditional university (Verduin & Clark, 1991).

As technology has advanced, so have the forms of distance education. In 1919, professors at the University of Wisconsin began using a home-made radio station for teaching purposes, later known as WHA and becoming the first federally licensed radio station dedicated to educational broadcasting. The 1920s were the beginnings of the use of radio for educational purposes, so during this period 176 educational institutions in the US were licensed to hold courses by means of radio. In Europe, radio education was even more popular than in the United States.

Naturally, the need for education using audio-visual means began to manifest even before the technical means of its realization existed. Thus, in 1913, Thomas Edison said "The use of books for learning in schools will become an outdated method. Students will be educated through images. It is possible to teach any field of human knowledge through moving images. Our educational system will be completely changed in the next ten years" The pioneers of the use of television for education and those who intuited its potential were the professors from the universities of Iowa, Kansas and Michigan. Beginning in 1952 in the United States television channels with exclusively educational content began to be reserved and in 1966 there were 632 such channels, one-third licensed to state and local educational systems, another third to colleges and universities and a final third for community organizations. In the late 1960s and early 1970s, the use of radio and television in education intensified, not as a medium of distance education, but as a useful classroom tool to explain and demonstrate the concepts being taught.

The use of television for distance education, in the sense that the student and the teacher interact asynchronously, has not been successful in this area, as televised lectures usually consist of the instructor reading the lectures, making it difficult to maintain the viewers' attention. But after the mid-1970s, this changed as the British Broadcasting Corporation (BBC) introduced a standard for television course developers to follow, so that educational programs would appeal to audiences. During the same period, the use of computers as an educational delivery medium began to be implemented, although academia was not yet willing to adopt this new technology.

The use of computers for education first appeared in the corporate environment in the 1980s when computer programs were used to train new employees (Rudestam and Schoenholtz-Read, 2002). University degree programs were introduced in 1989 at the

University of Phoenix. Shortly thereafter, in 1991, with the advent of the World Wide Web, the University of Phoenix became one of the first educational institutions to offer online education programs through the Internet, and over time other universities followed suit. In 1992, the Alfred P. Sloan Foundation, a philanthropic organization, developed Asynchronous Learning Networks (ALNs) to explore educational alternatives for those unable to attend traditionally organized courses. The Sloan Foundation also funded institutions that offered online educational programs to improve the quality of this process. The intensification of online educational activities has become evident since 1998.

Today, as information and communication technologies improve, the most common version of distance education is becoming online education, which involves the use of the computer and the Internet as a mechanism for carrying out teaching activities. Online education has not only changed the landscape of distance education, but is also having a major impact on higher education as a whole. Many authors appreciate that this form of organization and development of educational processes is a state of fact and a privilege for those who, for various reasons, cannot afford to attend a traditional class. Moreover, the debates on this topic highlight the need to shift the focus from how to make online education accessible to as many people as possible to how to ensure the quality of education, understanding not only the educational content but, also, how technology can be used to motivate, inspire and educate 21st century students.

3. Determinants of quality in the online education process

The quality of online activities is an aspect of interest for all those involved in the process and, of course, for the management of higher education institutions that run such courses. However, this area of interest is at the beginning, not having outlined a widely accepted theory and practice regarding how to evaluate the quality in the field of the teaching-learning process using information and communication technology.

Analyzing proposals and approaches presented in specialized literature and in the practice of organizations involved in ensuring the quality of online education, we formulate our own opinions regarding the manner in which the quality of the online teaching-learning process can be evaluated from a managerial perspective. Thus, we identified 5 major categories of indicators:

1. *The support given to the student by the teaching staff in the distance education process* - Refers to the assessment of the quality of communication and cooperation with the teaching staff who provide online courses

2. *The course contribution to the development of transversal skills in the distance educational communication process* - Refers to the extent to which the courses contribute to the development of social interactions between participants as well as to the development of their ability to critically analyze the taught concepts.

3. *Efficiency of the learning process* - Refers to the effort that learners must allocate to the learning experience as well as the relationship between benefits and costs.

4. *Information transparency* - Refers to the students possibility to obtain online information about courses from the institution that organizes the study program

5. *Didactic materials and the organization of the learning process* - Refers to the learning support provided by the methods and didactic materials used in the online courses

Within each category of indicators, we propose a series of subcategories on the basis of which the analysis can be carried out:

1. The support given to the student by the teaching staff in the distance education process	
Subcategories	Assessment Methods
1.1. The quality of the interaction between the teacher and the student - highlights the extent to which, although the educational communication takes place at a distance, the student can receive feedback from the teacher and, in turn, can give feedback to the teacher	<ul style="list-style-type: none"> - There is a context regulated by internal procedures regarding students' access to online communication with teaching staff, and this is known and respected by both students and teaching staff - The teaching staff, during the courses, offers students online feedback to clarify the concepts presented in the courses - The way in which the course is designed requires the student to be periodically monitored regarding the progress
1.2. The mediation quality of the learning process - highlights the ratio between the active moderation of the learning processes by the teaching staff, through communication, respectively the passive moderation, through the didactic materials transmitted by the teaching staff	<ul style="list-style-type: none"> - Student participation rate in the active learning process; - The existence, on the e-learning platform, at the level of each course, of practical applications, case studies, role-playing games etc. through which students are asked to solve certain concrete situations corresponding to the courses - The method of examining students; - Students' preference for synchronous/asynchronous learning
1.3. The personalization level of course support – highlights the extent to which students who benefit from online courses can receive support from teaching staff outside the subject of the courses, with additional information depending on the interests of each individual student.	<ul style="list-style-type: none"> - Teaching staff are willing to use various means of distance communication to communicate with students individually - Students can request the support of teaching staff, during their individual study, when they face various problems - Average number of participants in virtual courses

2. The course contribution to the development of transversal skills in the distance educational communication process	
Subcategories	Assessment Methods
2.1. The role of the course in the development of social interaction - highlights the extent to which the online didactic activities contribute to the development of social interactions	<ul style="list-style-type: none"> -The frequency of online discussions, other than those that involve teaching courses, between teaching staff and students, but also between students - The number of group activities carried out during the course - Students' opinion on the quality of social interactions generated by the course
2.2. The role of the course in the development of the ability to critically analyze the taught concepts - highlights the extent to which the online didactic activities contribute to the development of the ability to critical thinking	<ul style="list-style-type: none"> -- The extent to which students are assessed for expressing their own opinions in relation to the theoretical concepts taught - The frequency of online debates mediated by the teaching staff

3. Efficiency of the learning process	
Subcategories	Assessment Methods
3.1. Flexibility of the distance education – refers to the extent to which the online learning process is flexible in terms of time. The extent to which the operation of the e-learning system allows students to carry out the learning process at flexible times, from various places, will be evaluated	<ul style="list-style-type: none"> - The extent to which, at the institutional level, students' preference is taken into account regarding the schedule of teaching activities organized in the e-learning system - The extent to which students can access teaching materials at different points in time - The extent to which students can access teaching materials from different places.
3.2. Non-financial costs of the distance education – refers to the effort required to keep students motivated and focused on the course, even if the learning effort is done individually	The evaluation will be done by questioning the teaching staff involved in the process of developing online teaching methods, regarding the degree of difficulty of designing didactic activities so that they can be carried out in the e-learning system
3.3. Financial costs of the distance education - Refers to the possible financial efforts that the student must make in order to benefit from online learning	The extent to which such costs exist is assessed.
3.4. Benefits of participating in the distance education process, other than those related to the learning objectives - Refers to the extent to which the student, by participating in online learning, obtains benefits other than those related to the learning objectives.	The evaluation will be done by questioning students and teaching staff regarding the benefits, as well as the limits
3.5. Benefits resulting from the use of ICT - Refers to the extent to which the student's interest in online learning is determined not only by the content of the course and the convenience of attending the course, but also by the opportunity to become familiar with ICT	At the level of each course, the digital skills that the students develop will be identified, as a secondary benefit of attending the courses.

4. Information transparency	
Subcategories	Assessment Methods
4.1. Transparency of organizational information regarding courses and the qualification obtained following participation in courses - It refers to the extent to which students are satisfied with the information transmitted online by the educational institution about aspects related to the organization of courses, the structure of courses, the objectives of learning, skills, the qualification obtained, the qualification of the teaching staff, the accreditations of the institution organizing the courses	It will be determined based on an evaluation of the existing online information, made available to those interested, by the faculty

4.2. Transparency of organizational information specific to each course/discipline - Refers to the extent to which students are informed, through online display, about the organizational aspects specific to each course in the curriculum	The existing online information, made available to students, corresponding to each course will be evaluated.
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5. Didactic materials and the organization of the learning process	
Subcategories	Assessment Methods
5.1. Course support - This criterion refers to the satisfaction that students have with regard to online access to course support and other didactic materials necessary for the distance learning process	<ul style="list-style-type: none"> - The extent to which the course organization in the distance education system corresponds to the specificities of the learning program and the learners - The extent to which the access to the didactic materials is easy - aspects related to the presentation of the course will also be considered - The extent to which didactic techniques are adapted to the distance educational process - The extent to which the didactic materials are in a process of continuous improvement in terms of the online educational process
5.2. Bibliographic materials - refers to the students satisfaction regarding online access to the bibliographic materials needed for the course.	The degree to which it is easy for students to access the online bibliography specific to each subject, will be evaluated.
5.3. Diversity of course presentation resources - This dimension refers to the satisfaction that students have regarding the diversity of media resources used to support the course (audio, visual, films, texts etc.).	The extent to which teachers use various teaching-learning methods during the educational process is evaluated.
5.4. Conducting the student assessment process – Refers to the extent to which student assessment is an integral part of the distance education process, which implies that the assessment is consistent with the way the course is conducted, with the information and requirements conveyed during the progress of the course.	<ul style="list-style-type: none"> - The extent to which there is a balance between formative and summative assessment carried out in the distance educational system - The extent to which the course progress allows students to assess their educational evolution in achieving course objectives -- The extent to which, within the evaluation process, the integrity of the evaluation process can be guaranteed - The extent to which remote assessment of students does not disadvantage them - The extent to which the assessment process is adapted to be carried out remotely.
5.5. Technical aspects specific to the distance educational process – Refers to the technical aspects that define the teaching-learning process	<ul style="list-style-type: none"> - The extent to which online learning materials are designed to work effectively across various equipment and connectivity platforms - The extent to which the didactic materials have a graphic aspect capable of facilitating learning

	<ul style="list-style-type: none"> - The extent to which the software used in the distance education communication process is regularly updated. - The extent to which the e-learning platform is easy to navigate, which means it is intuitive, consistent and efficient.
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4. Conclusions

In this paper, the major problems faced by the successful and consistent adoption of the online education process in universities were presented. The paper argued that this issue must be adopted with interest by university management, because online education is a reality of the present and the future of education. For the maximum potential of the online educational process, there are several limits that must be overcome through appropriate managerial approaches. These limitations refer to: difficulties in ensuring social interactions between participants in the educational process - students and teaching staff; difficulties in developing transversal skills such as teamwork, communication skills etc.; the financial and non-financial efforts that both students and teachers must make to support the online education process and the extent to which these efforts are outweighed by the benefits; the ease with which students can carry out online and other activities likely to support the online educational process (obtaining information, administrative actions, etc.); adaptation of didactic materials and online teaching-learning methods.

Starting from these limits, the paper proposes a series of indicators to measure the quality of the online educational process, indicators that, through the proposed assessment methods, also suggest the measures that can be implemented by the university management to overcome the identified difficulties.

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