Determination of Learner Support Criteria for E-learning Environments in the Context of Quality Standards

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Abstract

Supporting learners in many different areas such as pedagogical, administrative and technical areas in e-learning environments is important for maintaining attendance rates, success and satisfaction. The standards published by accreditation organizations are guiding in determining the scope of support to be provided to students in order to provide quality e learning. This study aimed to examine the learner support criteria for e-learning environments in the context of quality standards from a sustainability perspective. The qualitative research method was used in the study and the data collected by document analysis were analyzed by manifest content analysis. In the first stage of the research, accreditation organizations publishing quality standards for educational programs and distance learning environments were researched and 15 accreditation organizations were selected according to the accessibility of the standards on the internet. In the second stage, the quality standard documents were scanned, and the sections related to learner support were separated and subjected to content analysis. As a result, ten dimensions of learner support emerged. These are technical training and orientation, socialization and interaction, evaluation and feedback, content and teaching material, research and consultancy, accessibility and ease of use, technical support, administrative support, security support, physical resource and financial support. In this context, suggestions have been made to make e-learning environments more qualified in terms of learner support.

Keywords: Distance education, E-learning, Accreditation, Sustainability, Student support, Quality criteria

Introduction

The support offered to students within the scope of distance education programs is one of the factors that have significant effects on the efficiency of distance education programs and show student satisfaction, distance education acceptance and effectiveness of education. Student support services may show some differences between institutions. However, all distance education programs should include some aspects of student support. EADTU (2016), which states that student retention, success and satisfaction are among the main objectives of the institution, emphasizes the importance of developing policies and strategies for the design and

delivery of student support services. It also argued that the support to be offered to students should be structured to cover pedagogical, technical and administrative aspects. OLC (2022) stated the importance of student support offered in online education to provide a comprehensive review of a student's entire academic life cycle at the institution, to increase student access to the services they receive, to provide an online academic experience, and to increase the interaction between online students and the institution. The need for different service areas to work in cooperation is emphasized as the most difficult issue in this regard (OLC, 2022).

Considering the level of knowledge, skills, values and awareness that all individuals need to acquire for sustainable development, the critical importance of accessible and quality education for all emerges. In the Sustainable Development Goals (UN, 2021), the road map for 2030 includes the title of 'Quality Education' and the quality dimension of education is emphasized. The goal of quality education refers to the structuring of education systems in an egalitarian, accessible and quality manner, and requires the monitoring of certain standards for sustainable and effective management (Škrinjar et al., 2008). It is increasingly recognized internationally that quality education structured around certain quality standards is an integral element and a key enabler for sustainable development (Timbi-Sisalima et al., 2022; UNESCO, 2014).

The problem of access to quality education is one of the main issues for open and distance learning environments within the scope of sustainable development goals. The prevalence of the use of open and distance learning environments has shown a great increase all over the world in the context of emergency distance education practices during the education interruption period experienced with Covid-19. During this period, in addition to ensuring the continuation of education that could not be continued face-to-face in many countries through distance education, initiatives aimed at promoting international cooperation were also realised. One of them, the Global Education Coalition, aimed to increase the best distance education practices and to assist countries in providing distance education by utilising high-tech, low-tech and non-tech approaches (UNESCO, 2020). It is stated that the rapid spread of distance education applications and their wide use brings quality issues to the agenda (Uysal & Kuzu, 2011; Lockee et al., 2010), and the lack of experience and infrastructure of institutions offering online education brings the issue of quality to the fore (Oblinger et al., 2001).

The best way to provide and maintain quality e-learning is to apply standards (Hvorecky, 2004, pp. 1-3). Standards make it possible to measure the quality status based on defined criteria (Jung

et al., 2011). Although many standards, models and regulations are used to determine the quality of the e-learning offered, there is no widely accepted definition of quality standards for e-learning environments (Vagarinho, 2020). Due to the unique characteristics, advantages and disadvantages of e-learning environments, quality standards developed for face-to-face education environments cannot be fully applied to e-learning environments and the need to develop special standards for e-learning environments arises (Coomaraswamy et al., 2009; Middlehurst, 2000). Various academic studies have investigated what the quality dimensions should be and different accreditation organizations have published a series of standards on this subject.

Accreditation, which is defined as the process of measuring and evaluating the quality of an institution in different contexts using certain standards (Jerabek, 2004), has many functions such as ensuring quality, access to funds, creating private sector trust, and facilitating transfer (Eaton, 2012). There are many national and regional accreditation organizations established to ensure quality in e-learning.

In many of the quality standards, which basically aim to provide an accredited education that produces more efficient results, the support offered to students, who are the primary stakeholders in the learning process, has an important role. Because in addition to the quality features of the e-learning environment, the value judgement given to these features should also be taken into account (Timbi-Sisalima et al., 2022). Masadeh et al. (2023) stated that the quality of education, usefulness, effectiveness and ease of use are effective factors in students' satisfaction with e-learning systems and that these factors positively affect students' tendency to use the system in the future. Kestin et al. (2017) emphasized the need to meet the needs of the addressed segment in order to ensure quality in e-learning and interpreted this situation as a competitive strategy. Vagarinho (2020) emphasized the importance of improvement, skills, and sustainability in e-learning quality. Meidan et al. (2017) stated that in order to ensure sustainability, services should be adapted in line with the demands of the addressed segment and thus costs can be reduced.

This study aims to examine the learner support criteria for e-learning environments in the context of quality standards from a sustainability perspective. In this direction, how the scope of learner support criteria is expressed in the quality standards published by accreditation

organizations is investigated and suggestions are made to make e-learning environments more qualified in terms of learner support.

Method

Research Design

In this study, a qualitative research method was used and document analysis was preferred as data collection method. The data were analyzed with manifest content analysis (Krippendorff, 2004). Manifest content analysis is related to data that can be easily observed by researchers without the need to determine a deep meaning (Kleinheksel et al., 2020) and is defined as staying close to the text by explaining what is happening and present on the surface (Graneheim & Lundman, 2004). In this study, the standard texts published by accreditation organizations were examined using the document analysis method and the scope of learner support criteria in these texts was analyzed using the open content analysis format.

Research Sample

In the research, first of all, accreditation organizations that publish quality standards for educational programs and distance learning environments were searched and 15 accreditation organizations were selected according to the accessibility of the standards on the internet. The selected accreditation organizations and the standards they publish are shown in Table 1.

Table 8

The Accreditation Organizations Examined And The Quality Standards They Publish

Accreditation Organizations		Quality Standard Documents	Publication Year
ACCET	Accrediting Council for Continuing Education & Training	Interactive Distance Learning (IDL) Template	2015
ACCJC	Accrediting Commission For Community and Junior Colleges	Accreditation Standards & Policy on Distance Education and on Correspondence Education	2014 & 2021

ACICS	Accrediting Council for Independent Colleges and Schools	Accreditation Criteria	2022
AFT	American Federation of Teachers	Distance Education- Guidelines for Good Practice	2000
CACE	Community Association for Community Education	Creating Quality Guidelines For On-Line Education And Training	2001
CHEA	Council for Higher Education Accreditation	Accreditation and Assuring Quality in Distance Learning	2002
DEAC	Distance Education Accreditation Commission	Accreditation Handbook - Policies, Procedures, Standards And Guides Of The Dıstance Educatıon Accrediting Commission	2022
EADTU	The European Association of Distance Teaching Universities	Quality Assessment for E-learning: a Benchmarking Approach	2016
EFQUEL	European Foundation for Quality in e-Learning	UNIQUe - European Universities Quality in e-Learning- The Guidelines	2011
ENQA	European Association for Quality Assurance in Higher Education	Standards and Guidelines for Quality Assurance in the European Higher Education Area	2015
IHEP	Institute for Higher Education Policy	Quality On the Line	2014
NACOL	North American Council for Online Learning	National Standards for Quality Online Teaching	2008
NSQ	NSQ Online Programs	Overview of Changes to the National Standards for Quality Online Programs	2019
OLC	Online Learning Consortium	OLC Quality Scorecard Suite - Online Student Support	2022
QM	Quality Matters	Specific Review Standards from the QM Higher Education Rubric	2020

Research Procedure & Data Analysis

After determining the accreditation organizations to be examined in the study, the quality standard documents published by these organisations were scanned and the sections related to learner support were separated. Learner support criteria were analysed by manifest content analysis, the scope of learner support was investigated and accordingly, criteria indicating the scope of learner support were determined. In order to ensure reliability, the criteria and the items covered were examined by three field experts, and necessary arrangements were made in the names and scopes of the criteria in line with the expert opinion.

Results

In this study, which aims to examine the scope of learner support criteria for e-learning environments, the quality standards published by accreditation organizations were analysed, and as a result, ten dimensions of learner support emerged. The criteria for learner support are presented in Table 2.

Table 9

Learning Support Criteria Established within the Scope of Quality Standards

1. Technical training & orientation

2. Socialisation & interaction

3. Evaluation & feedback

4. Content & teaching material

5. Research & consultancy

6. Accessibility & ease of use

7. Technical support

8. Administrative support

9. Safety support

10. Physical resources & financial support

The distribution of the established learning support criteria in the standard texts published by the accreditation organizations is presented in Table 3.

Table 10

Availability of Learner Support Criteria in the Standards of Accreditation Organizations

	ACCET	ACCJC	ACICS	AFT	CHEA	DEAC	EADTU	EFQUEL	ENQA	CACE	IHEP	NACOL	NSQ	OLC	QM
Technical training & orientation					X	X	X	X					X	X	
Socialisation & interaction		X			X		X	X		X	X	X	X	X	X
Evaluation & feedback				X	X	X	X	X				X			X
Content & teaching material	X	X		X			X	X	X	X	X	X	X	X	X
Research & consultancy		X		X		X	X	X	X	X			X	X	X
Accessibility & ease of use							X	X		X			X	X	X
Technical support	X		X	X	X	X	X	X	X	X	X		X	X	X
Administrative support	X	X	X		X	X	X	X			X			X	X
Safety support		X				X	X	X			X				X
Physical resources & financial support	X				X	X		X		X				X	

The ten support criteria established in the context of quality standards are intended to explain in which dimensions and how learner support should be provided. When the scope in which these criteria are addressed by different accreditation organizations is evaluated, the criteria explanations can be made as follows:

Technical training & orientation

One of the most important support criteria that should be offered to learners in e-learning environments is technical training and orientation support. The necessity of information about the e-learning environment, which may have new and unfamiliar features for some students, and orientation training to warm students up to this environment is emphasized in the quality standards of many accreditation organizations. In this context, it is recommended to assess whether students have the skills and competences to be successful in the distance education environment and to provide appropriate training and support accordingly (CHEA, 2002). It is stated that students and instructors should receive training and support for the technology used in education (DEAC, 2022). It is also indicated that appropriate services should be provided for students to acquire and develop the ICT skills they will need in the e-learning environment

(EFQUEL, 2011). It has been reported that this technical training support can be provided to students through appropriate online or blended learning courses and materials, OER resources, MOOCs, as well as well-designed online guides, web pages, video tutorials and specialized online support (EADTU, 2016). Orientation to be provided for students to use online learning technologies and to create successful online learning applications has also been emphasized (NSQ, 2019; OLC, 2022).

Socialisation & interaction

The ability of students not to be isolated from the e-learning environment with a feeling of loneliness and to develop a sense of belonging to this environment is directly related to the socialization and interaction opportunities offered by the e-learning environment. It is recommended by the institution to provide a regular interaction environment between students and instructors (ACCJC, 2021; CHEA, 2002; EFQUEL, 2011) and to support students through online communities (EADTU, 2016). At this point, it is important that instructors design various strategies to encourage interaction in the online environment (NACOL, 2008), that learning activities provide opportunities for interaction that support active learning (QM, 2020), and that the program establishes standards to facilitate this communication (NSQ, 2019). It is stated that program design, study groups (CHEA, 2002), various methods such as voicemail and e-mail (IHEP, 2014) can be used to develop a sense of community and interaction; social media opportunities can also be used for this purpose (EADTU, 2016). In this way, it is possible to provide students with flexible opportunities for interaction and problem solving, to provide students with the opportunity to 'hear' their questions and experts in the field, to develop collaboration among students (CACE, 2001), and to have different options such as participating in campus organizations (OLC, 2022).

Evaluation & feedback

The support that should be provided to students regarding the evaluation and feedback process, which is one of the basic components of e-learning, is addressed in different dimensions in the standard clauses of many accreditation organizations. Some of these are that student evaluations should be comparable (AFT, 2000), both summative and formative evaluation forms should be used (EADTU, 2016) and appropriate measures should be taken to provide timely feedback to students (EFQUEL, 2011; NACOL, 2008). In addition to these, it is seen that the validity and

reliability of assessments in e-learning environments are particularly emphasised. The institution should ensure the reliability of the degrees and credits awarded (CHEA, 2002), ensure fairness and consistency in grading (EADTU, 2016), conduct adequate identity checks (EADTU, 2016), use software to detect plagiarism and other misconduct (EADTU, 2016; EFQUEL, 2011), the establishment of an efficient and fair system for complaints arising from assessment results (EFQUEL, 2011), and the instructor's creation and implementation of assessments to ensure the validity and reliability of measurement tools (NACOL, 2008) are some of the support services that can be offered to students in terms of reliability. It was also stated that the institution should follow a specific grading policy. Clearly stating the course grading policy at the beginning of the course (QM, 2020), establishing evaluation criteria for student work and explaining their connection with the course grading policy (QM, 2020), publishing information about the assignment grading system, course extension policy and completion of incomplete grades and applying them fairly and consistently (DEAC, 2022) were considered important. Taking into account students' evaluations of the learning experience, providing opportunities for self-assessment, and continuously monitoring and reporting students' progress in the e-learning process (EFQUEL, 2011) are also important supports offered in terms of process evaluation.

Content & teaching material

The content and teaching materials to be presented to students in e-learning environments are extremely important for students to make adequate pedagogical development in e-learning environments. In e-learning environments, instructors should not see the course design as a copy of the traditional classroom, but should plan to maximize the potential of the environment to be used (AFT, 2000). At this point, it is necessary to provide textbooks, software, learning activities, visual aids, electronic links and other teaching materials that support goals and objectives, are up-to-date, readily available and facilitate learning outcomes (ACCET, 2015), and institutions should provide the necessary resources and structure (ACCJC, 2021; QM, 2020).

Within the scope of learning support services, it is extremely important that online library services, learning centers, computer laboratories, materials supporting the acquisition of learning skills, electronic databases and all possible electronic research materials are made available to distance education students (ACCET, 2015; ACCJC, 2014; AFT, 2000; EADTU,

2016; EFQUEL, 2011; NSQ, 2019; OLC, 2022). It is also suggested that students should be shown how to connect with online articles, books and catalogs in libraries and be provided with instructions and training on using these resources (AFT, 2000; EADTU, 2016; IHEP, 2014). In addition to these physical resources, the importance of human support such as trainers and counselors is also emphasized (ENQA, 2015).

In order to facilitate continuous applicability, teaching materials should be easy to use, readily available, student-friendly and free of technical glitches (CACE, 2001), taking full account of the principles of reusability, accessibility, interoperability and durability (EFQUEL, 2011). It is also recommended that the quality of study materials and guidance documents should be regularly reviewed for suitability for e-learning, that the institution should have an archiving policy for learning materials (EADTU, 2016) and that the materials should be tagged according to a valid meta-data standard and made available in the database (EFQUEL, 2011).

Research & consultancy

One of the support dimensions that educational institutions providing e-learning services should provide to support student development and success is research and counseling support. This support can be aimed at ensuring that students understand the requirements of the programs they are studying, that they are provided with timely, useful and accurate information about relevant academic requirements, including graduation and transfer policies (ACCJC, 2014), and that institutional requirements, program requirements, course learning outcomes and educational objectives are achieved (DEAC, 2022). It is stated that counseling support should include career counseling (EADTU, 2016; CACE, 2001; OLC, 2022), academic counseling (NSQ, 2019; OLC, 2022; QM, 2020) and guidance services (EFQUEL, 2011; ENQA, 2015; NSQ, 2019). In addition, providing equivalent research opportunities to distance education students (AFT, 2000), developing study and e-learning skills (EADTU, 2016), providing feedback to students' concerns and questions in a short time (EADTU, 2016) are also among the support criteria.

Accessibility & ease of use

In order for learners who do not have sufficient experience in the use of technology and disadvantaged groups to benefit effectively from the e-learning environment, the e-learning environment should provide some support for accessibility and ease of use. The conformity of

all interfaces to usability and accessibility standards (EADTU, 2016), the conformity of course materials to national and European standards on accessibility and their presentation in alternative formats for individual needs (EADTU, 2016), overcoming technological barriers for disadvantaged groups (students with disabilities, rural areas, socio-economic disadvantages, etc.). (CACE, 2001; EFQUEL, 2011; NSQ, 2019), providing access to assistive technologies (OLC, 2022) are some of the support dimensions that should be offered. It is also very important to state and link to the institution's accessibility policies and services in course guidelines, to provide accessible text and images in documents, LMS pages and web pages, and to provide alternative ways to access multimedia content (QM, 2020).

Technical support

Technical support is an important support dimension that should be provided in order to ensure smooth access to learning materials, platforms and tools in the e-learning environment, to enable students and instructors to benefit effectively from the distance education platform and tools, and to avoid any disruption in learning. It is extremely important for the institution to provide students with reliable, long-term and reasonable technical support for e-learning environments (ACICS, 2022; AFT, 2000; CHEA, 2002; EADTU, 2016; EFQUEL, 2011; CACE, 2001) and to establish standards for effective technical support (NSQ, 2019). In addition, specifying which technical support is provided, when and by whom (ACCET, 2015; EADTU, 2016; QM, 2020) and providing students with detailed instructions and practice sessions on the electronic environment used throughout the program (IHEP, 2014) are also considered important by accreditation organizations. In terms of technical support, recommendations included that institutions should provide single sign-on access to various applications (e.g. using the same password to log in to different applications) (EFQUEL, 2011), respond quickly and completely to all student inquiries (DEAC, 2022) and provide easy access to technical support staff or helpdesk (IHEP, 2014; OLC, 2022).

Administrative support

The administrative support offered to students has an important place in ensuring the healthy functioning of the policies and procedures established for e-learning and developing a sense of belonging towards the e-learning environment in students. Within the scope of administrative support, it is considered important for institutions to provide policies and procedures that guide

the establishment, organization, financing and management of e-learning programs (ACCET, 2015), to clearly state the course and institutional policies that students are expected to comply with (QM, 2020), to implement admission policies for student enrolment that are compatible with their mission and determine student qualifications appropriate to their programs (ACCJC, 2014), and to keep admission standards equivalent for all students and inclusive of distance education requirements (CHEA, 2002). In addition, the institution should develop policies and procedures to address and respond to student complaints in line with the principles of fairness, responsiveness, respect, due process and proportionality (DEAC, 2022; EADTU, 2016), develop policies on refunds (DEAC, 2022), and provide clear and up-to-date information about courses, program requirements, tuition and fees, books and materials, technical and proctoring requirements, and student support services to enable students to make informed choices (EADTU, 2016; IHEP, 2014). It has also been suggested that students should be able to perform many administrative tasks such as registration and payment online (EADTU, 2016), provide employment assistance to students (ACICS, 2022), offer virtual campus tours during the admission process (OLC, 2022), and provide all the information that may be needed such as the institution, faculties, degrees, courses, registration procedures, academic and assessment calendars, etc. through the website (EADTU, 2016; EFQUEL, 2011).

Safety support

Taking measures to protect students' personal data and privacy while continuing their learning in the e-learning environment is another dimension of the support that should be provided to students. The institution should publish policies to protect student privacy and confidentiality (ACCJC, 2021; DEAC, 2022; QM, 2020), take responsibility for processes related to student authentication (ACCJC, 2021), ensure the security of student records (DEAC, 2022) and define appropriate security standards, policies and codes of practice for all aspects of the provision of online services (EADTU, 2016). As part of security support, it is recommended to use strong end-to-end encryption to ensure that all users' personal data in the system is protected (EFQUEL, 2011) and to develop a documented technology plan that includes electronic security measures (IHEP, 2014).

Physical resources & financial support

In order to provide access to the e-learning environment, there are certain physical resources that students and instructors need to have and financial support may be needed for this. In this context, the importance of having adequate, appropriate, up-to-date and functional equipment, learning resources and supplies available for the effective delivery of education and training (ACCET, 2015), financial viability and continuity (CACE, 2001). The institution should have a well-defined budget and financial plan that provides the necessary and appropriate equipment and other resources for the effectiveness of the distance education program (CHEA, 2002). It is also recommended that the institution should provide financial aid guidance and employment assistance for enrolled students (DEAC, 2022), follow a fair approach to tuition fee setting policy (EFQUEL, 2011), and provide students with all necessary digital/physical materials and services, including the internet for e-learning environments, assuming access to a computer (EFQUEL, 2011).

Discussion

With COVID-19, it is seen that the widespread use of e-learning for academic activities has increased student complaint behavior due to new dissatisfaction experiences and in this context, ensuring student satisfaction has become an important issue. Regulation and development steps to ensure student satisfaction can be addressed in different contexts in the literature. Zamora-Ramos et al. (2023) proposed approaches that indicate that this process can be managed similarly to customer complaint behavior in companies, and in this way, student satisfaction can be achieved without compromising the quality of education and the sustainability of the service. Díaz-Méndez et al. (2019, p. 6) emphasized that identifying students as customers is subject to problematic interpretations, jeopardizes the quality of higher education by directly affecting students' attitudes, understanding and motivation and distorting the quality of their learning experiences, and can lead to harmful consequences for social development and educational sustainability. On the other hand, considering the positive impact of students' satisfaction on learning outcomes within the pedagogical framework, many of the quality standards published by accreditation organizations for distance learning environments include criteria for supporting students in different contexts in the e-learning process.

Conclusion and Recommendations

It is seen that the support offered to students in e-learning environments has a positive effect on student success, satisfaction and attendance rate. In this study, which examined the standards published by different accreditation institutions and international educational organizations to determine the scope of the support criteria that should be offered to students in e-learning environments, learner support criteria were grouped under ten headings. In order for students, who are one of the most important stakeholders of learning environments, to have qualified e-learning environments needed for sustainable development, it is extremely important to adapt the learner support criteria to e-learning environments and to develop e-learning environments in this context.

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