



Erasmus+

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Guide to Online Teaching and Learning

The Context of the Coronavirus Pandemic

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Introduction

In response to the outbreak of Coronavirus, most if not all the universities have suspended face-to-face classes and moved or are moving towards online teaching and learning. The sudden massive adoption of the online teaching and learning is challenging higher education globally, and the Lebanon is not an exception. The Erasmus+ team of Higher Education Reform Experts (HERE) in Lebanon has therefore compiled this Guide to serve as a reference for stakeholders in the universities as they transit towards online education.

The Guide is divided into the following sections:

- Overview and definitions for online learning
- Course preparation, delivery and assessment
- Online learners
- Infrastructure and tools
- Quality in online teaching and learning
- Managing HE programmes in pandemic times
- Concluding thoughts

Overview and Definitions for Online Learning

“Online education is a flexible instructional delivery system that encompasses any kind of learning that takes place via the Internet.”¹ It gives the instructors an opportunity to reach learners who may not be able to attend traditional classroom courses. Students are forced into this new situation with the outbreak of Coronavirus, which is a common situation for all higher education students and learners. This placed an emphasis on online learning but also a lot of challenges.

Internet appears a safe medium to communicate in the present higher education context. For online education, Internet is the backbone of the interactions and shapes the courses provision and assessment. If managed appropriately online education allows achieving the educational goals of a course or programme. In addition, it inherently allows for the development of **more competences and skills by promoting active learning and developing digital skills.**

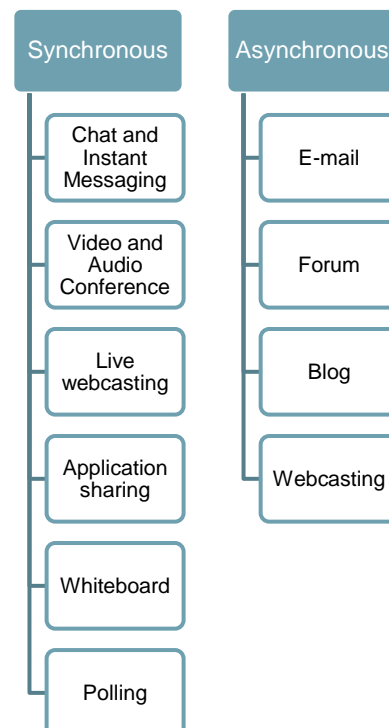
Approaches to Online Learning

There exist two main approaches to online learning:

- **Synchronous learning** where delivery happens in real-time
- **Asynchronous learning** where delivery is often time-delayed

It is worth noting that **synchronous learning is closer to face to face provision.** This forms an advantage when the actors, i.e. the learner and the instructor, are not prepared in advance for moving to online education and learning.

Both synchronous and asynchronous online approaches are instructor facilitated. Online learning can be also classified as **self-paced** or **instructor-led**. Self-paced learners achieve their learning experience in a more independent way. They follow web coursewares offered to them and they are free to learn at their own pace with minimal interaction with the instructor or the



¹ ENCYCLOPEDIA.COM

learners' cohort. They can be considered as an extreme scenario of asynchronous learning.

Instructor-led online learning is a model where a linear curriculum is developed and where courses progress according to a chronological time frame. The schedules are set and monitored by the instructor using the learning platform. Instructor-led online learning can be synchronous.

Synchronous instructor-led learning is closer to the classical face to face learning. In the present scenario of **massive adoption of online learning and where the landscape of this delivery is not well developed** (e.g. in Lebanon), **a progressive introduction of online learning suggests to start with synchronous instructor-led approach.** Moreover, many of the video conferencing or online meeting tools permit the recoding of the sessions which can be used later on by the students in asynchronous mode according to their need².

Online Learning Components

The major online learning components that might be involved in a learning experience are:

1. Content of the learning sessions
2. Learning materials
3. Tutoring and mentoring
4. Collaboration among the students
5. Virtual classroom

Advantages and Challenges of Online Learning

Online learning has a variety of advantages that can benefit learners. Some of those advantages are enumerated in the following table.

² E.g. when studying or if the network connection was weak at time of delivery.

Table 1. Advantages of Online Learning

<i>Learner Centered Learning</i>	To various degrees and depending on the approach the learner conducts personal learning and interaction with the courses materials. Motivation remains a key factor.
<i>Active and Collaborative Learning</i>	Online participative group work may encourage students to become more active learners. Participation requires a good comprehension of the discussion and clear communication. The differences in the pace of acquisition of the required level of comprehension and the competences for clear expression can be smoothed in online education by individual effort to acquire missed information or competences.
<i>Wide Access</i>	Online education widens the access to the courses by integrating different classes of students, some of which would be traditionally considered as disadvantaged to access face to face classrooms.
<i>Digital Skills</i>	Learners acquire digital skills indirectly and through interaction with course materials and publically available resources.
<i>Enriching Course Delivery</i>	It offers tools and techniques that facilitate the learning and the group work. This requires the knowledge and mastering of existing tools or the development of some tools ³ .
<i>Developing personalized learning and tutoring</i>	Individual follow up and tutoring of the students might be facilitated by this mode of delivery where the most convenient mode and time of tutoring might be chosen.
<i>Flexibility</i>	Online learning offers flexibility that might not be available in traditional classroom settings. This flexibility might advantage the learning process when appropriately used.

Online learning presents multiple challenges that are presented in the following table.

³ Some of the tools are provided in section "Infrastructure and Tools" plus several tools for courses authoring or videos editing (adaplearning, courselab, scratch, glo maker, etc.)

Table 2. Challenges facing online learning

<i>Digital Literacy</i>	A certain degree of technological proficiency is needed to attend a class online. This might create disparities among groups, depending on their backgrounds, their domains of study etc. Training might be essential in some cases.
<i>Technical and Technological Infrastructure</i>	Technological infrastructure can become easily challenging. A low bandwidth Internet connection can tremendously affect learners' participation in classes. Being equipped with modern digital devices facilitates the learning and the access to tools and resources. Moreover, access to the University resources may be compromised ⁴ which creates inequities that need to be taken into account. Proper infrastructure is a problem both at the government level and individual level. In many cases, the public internet infrastructure is not suitable for such a crisis, especially that all HEI have switched to online education and so did most all of the general education schools. This is the case in Lebanon. Obviously, recurrent cuts in the Internet services and bad economic situation, where many students are unable to access the services of private Internet providers, makes hard for students to join in.
<i>Time Management</i>	The flexibility offered by the online learning process requires time management skills. This important challenge is slightly attenuated during the Coronavirus outbreak since social activities are reduced to a straight minimum.
<i>Motivation</i>	Online learning offers big advantages when both learners and instructors are highly motivated. Thus, it is crucial to organise the learning activities to preserve and foster learners' motivations.
<i>Timely Response</i>	Learners need to remain connected to the learning process they are engaged in. Non timely response to their requests by the instructor may break this connection.
<i>Electricity Cut</i>	In many countries the cuts in electricity form a major obstacle besides the poor Internet services. For example, there are still major electricity cuts all over Lebanon at varying percentages between one region and another. A fact that might prevent the learners from joining an online session at a certain scheduled time.

⁴ E.g. during the Coronavirus outbreak

Online Learning and Domains

Table 3. The learning domains and the digital provisioning

Learning Domain	Online Learning	
	Delivery	Assessment
Cognitive (understanding concepts, developing procedural and reflexives skills, applying methods in new situations, etc.)	The cognitive domain is suitable for online learning. Depending on the course different <i>interactivity levels</i> are required.	
	<ul style="list-style-type: none"> • <i>Web-enhanced materials</i> • <i>Hybrid courses</i> • <i>Multimedia simulation</i> 	<ul style="list-style-type: none"> • <i>Project based</i> • <i>Multiple choice</i> • <i>Short essays</i> • <i>Case studies</i>
Interpersonal (active listening, negotiating, presenting, communication, etc.)	Specific online learning methods can be used to develop interpersonal skills. Some constraints regarding group presence and interaction might be required.	
	<ul style="list-style-type: none"> • <i>Videos</i> • <i>Video Conference</i> 	<ul style="list-style-type: none"> • <i>Team assessment</i> • <i>Analysis of video taped student</i>
Affective (goal setting, self reflective, etc.)	The lack of in-person interactions makes it difficult to observe learners' reactions. Advanced methods are needed to cope with this.	
	<ul style="list-style-type: none"> • <i>Motivational videos</i> • <i>Streaming audio</i> • <i>Web casts</i> • <i>Video conference</i> 	<ul style="list-style-type: none"> • <i>Self assessment</i> • <i>Attitude online surveys</i>
Psychomotor (e.g. sports, driving a car, manipulating a tool [medical, mechanical, biological, chemical etc], ...)	Online education is complex and challenging. When this is the only available mode of learning innovative learning activities respecting are needed.	
	<ul style="list-style-type: none"> • <i>Demonstration Video⁵</i> • <i>Interactive Video</i> • <i>Multimedia content with overlaid explanation</i> 	

The classification of the learning domains and skills has been a subject of research for decades. Bloom⁶ et al. have identified three domains: Cognitive, Affective and

⁵ E.g. JoVE offers learning videos in hard sciences <https://www.jove.com/>

⁶ Bloom, B. S., Engelhart, M. D., Furst, E. J., Hill, W. H., & Krathwohl, D. R. (1956). *Taxonomy of Educational Objectives: The Classification of Educational Goals by a Committee of College and University Examiners (Handbook I: Cognitive Domain)*. New York: Longmans Publishing.

Psychomotor. Vaughan⁷ added interpersonal as a fourth domain of learning. Many variants or other relevant classifications exist. Such classifications permit structuring the level of complexity and challenges when transiting to online learning, in particular in an urgent and massive way. The following table is an adaptation of the work by C. Vinson⁸. Many of the modes of delivery and assessment can be used across the learning domains. The ones provided in Table 3 are for illustration purposes.

⁷ Vaughan C. A. (1980), Identifying Course Goals: Domains and Levels of Learning, *Teaching Sociology*, 7:3, pp. 265-279.

⁸ https://faculty.chass.ncsu.edu/slatta/HI885/Learning_Domains.htm

Course Preparation, Delivery and Assessment

The “Analysis Design Development Implementation Evaluation” (ADDIE) is an inspiring model⁹. The model suggested is shown in the following figure¹⁰ where few highlights are provided in case of online learning.

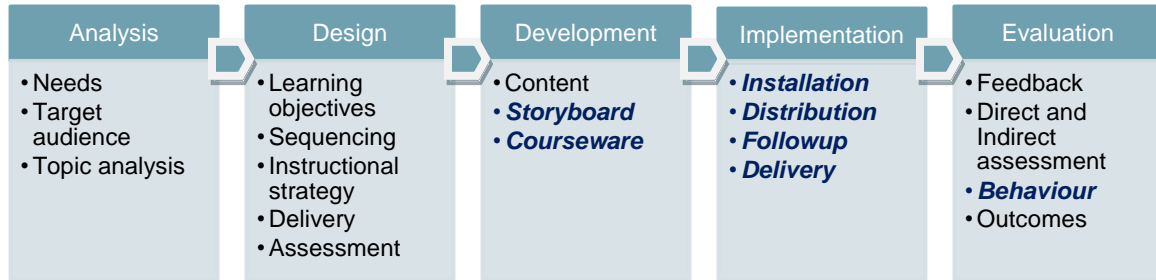


Figure 1. ADDIE for instructional design

Course Preparation

Analysis and Design

The first two phases, **Analysis and Design** of the ADDIE model in Figure 1 are crucial for the design of a new course or programme to be delivered online. In general these steps are crucial and affect the decision to provision the course or programme in online learning. The urgent character of the present situation imposes **Analysis and Design** of the courses and programmes done for traditional face to face learning. However, an adaptation may be sought especially regarding the sequencing and learning objectives by maximizing the development of cognitive and interpersonal skills and seeking specific solutions for the development of psychomotor skills.

Development

In the development phase the course materials shall normally be collected and prepared. This includes **pedagogical elements, media elements, interactive elements and other needed materials that serve the learning**. These elements need to be assembled and sequenced in a story board engaging the learner in a learning path

⁹ G.R. Morrison, S.M. Ross, J. E. Kemp and H. Kalman, “Designing Effective Instruction,” J. Willey and Sons, 6th Edition (2010, ISBN 10-0470522828), 8th Edition (2019, ISBN 10-1119465931)

¹⁰ E-learning methodologies: A guide for designing and developing e-learning courses, FAO 2011, ISBN 978-92-5-107097-0

leading to the attainment of the targeted learning outcomes. Once determined they shall be implemented in a courseware to be delivered over the Internet.

This phase is crucial for the success of the instructional design. The present context does not offer the luxury to perform this task in a proper way. **Faculty members need to adapt to new learning and teaching environments quickly.** This requires taking a realistic look at what learning outcomes are achievable and how to **adapt the existing materials to be delivered over learning platforms.** It is suggested to adopt the following principles in order to achieve the adaptation:

- Focus on the **learning outcomes**
- Set **realistic expectations** and do not strive for perfection
- Remain the **closer to the traditional delivery** adopted (e.g. through the use of synchronous online learning)
- Be **creative** in the definition and implementation of the learning activities and assessments
- **Avoid ambiguity** and plan for constant communication with the learners who are facing excessive changes in their learning environment and experience in addition to the disturbing context

Implementation

After deciding on the online learning approach and adapting the materials and the storyboard, delivery shall start. The implementation involves technical and technological issues. Some details and hints about learning management platforms are provided in the section “Infrastructure and Tools”. In normal cases teams shall be formed for the implementation of an online course. This **implementation requires** three types of **skills** in:

- **Online learning**: provided generally by an instructional designer
- **Subject matter**: the instructor is the one responsible of the course
- **Technology and manipulation of the learning platform** with additional skills in web development and media editing

A team including those skills shall be formed in order to have a safe implementation of the course.

In the present context and in light of the massive utilization of online learning with the Coronavirus outbreak, it might be challenging to assure those resources. **An alternative would be** to form **centralized support units**¹¹ providing training, awareness raising and dedicated support to the instructors in their implementation. Such units must have expertise in both online education and technological aspects especially those related to the learning platform in use. It is worth noting that this unit might also be required to serve in training learners to use the learning platform and adapt to online education.

While adopting online delivery, the following practices might be inspiring:

- Communicate regularly with learners to relieve part of their stress while nurturing their motivation and participative roles in the learning process
- Engage the learner in discussing the goals of the course and the progress towards these goals
- Provide regular feedback to the learner regarding their achievements
- Promote group work and discussions among the learners
- Engender respect of intellectual diversity

¹¹ Or to use existing teaching and learning support units

- Post course materials well in advance
- Prepare the students to online learning and clarify the computer skills and terminology needed
- Test content and technology beforehand

Instructional methods

Online teaching may use a combination of instructional methods:

- **Expository methods:** They aim at developing the learners' knowledge
 - Possible delivery formats: presentations, case studies, examples, demonstration, interactive online lessons, webinars, or virtual classrooms.
- **Application methods:** They engage learners into participative learning through the execution of an online task, the solving of exercises, guided research or project work.
 - Possible delivery formats: interactive e-Learning, electronic simulation, virtual classroom, online group activity, or symbolic simulation.
- **Collaborative methods:** Some authors refer to those methods as part of the Online Collaborative Learning^{12,13} where learners are encouraged to work together on learning materials and subjects in order to create knowledge. These methods stimulate critical thinking and attitudinal change, facilitate communication and develop interpersonal skills.
 - Possible delivery formats: guided discussions, collaborative work and peer tutoring, sharing documents, emails, forums and other methods.

For more details you may refer to the FAO publication by B. Ghirardini¹⁴.

¹² L. Harasim (2011), Learning theory and online technologies, Routledge Press, ISBN 978-0415999762

¹³ D.D. Curits & M.J. Lawson (2001), Exploring collaborative online learning, JALN, 5:1, 21-34

¹⁴ B. Ghirardini , E-learning methodologies: A guide for designing and developing e-learning courses, FAO 2011, ISBN 978-92-5-107097-0 (You may also refer to the “Manuel de pédagogie universitaire USJ, at <http://www.mpu.usj.edu.lb>)

Assessment and Evaluation

Assessment methodologies shall be primarily related to the expected learning outcomes. Online assessment is challenging for many reasons related to: authentication, security, open vs closed book, etc.

Several forms of assessment may be conducted online:

- End of semester paper
- Quizzes
- Oral presentations
- Oral exam
- Chatroom responses
- Group projects
- Journals
- Etc.

Most of the listed forms of assessment have little or no difference between online and traditional assessments. Mainly the differences exist for quizzes and exams where online assessment appears to be less reliable raising several concerns about their validity.

Most of the learning management systems include one or several assessment tools that tackle the issue of reliability. **Online assessment has to be considered from two points of view: technological and academic.**

At the technological level several platforms offer:

- **Authentication mechanisms** using simple passwords or badges or even biometrics etc.
- **Security mechanisms** through state of the art security algorithms and protocols.
- **Random presentation** of the questions (and answers in the case of multiple choices)
- **Time control**
- **Attempt control**

At the academic level, **innovative approaches might be proposed to enhance the reliability of the assessment**. Typically different sets of questions can be presented to different subgroups. In this case a trade-off needs to be found between similarity and variation in the versions of the questions in order to assure equity and reliability of the assessment. The instructors may also profit from the limits on time and number of attempts to augment the validity of the assessment.

It shall be recommended to remain as close as possible to the examinations forms set for the courses before the Coronavirus outbreak. Typically, the instructor might request from the students to be connected while performing an examination in order to ensure a minimum proctoring.

In definitive, an **appropriate combination of the existing tools** would guarantee a fair and just assessment of the level of attainment of the learning outcomes. It is important to announce the tools and rules and procedures to the students ahead of the assessment. To illustrate, the instructor might declare to the students that an oral examination can be called for after the assessment of the examination answers and in that case it would count for a certain percentage of the grade. **Transparency and information remain essential** in online assessment.

It is important to **safeguard copies, records or any digital records of the exams**. Moreover, **comparing the distribution of grades to some control distributions** of grades from past years and making the comparison results public help in gaining a trust in the evaluation conducted.

Other challenging parameters

Undoubtedly, there exist other parameters that strongly challenge the transition to Online Learning. The size of the class is one of those parameters. To illustrate this consider the case of classes with a large number of students. The **high number of students might become an obstacle for online synchronous learning due to technical and technological limitations**: e.g. the Internet bandwidth or limitations inherent to the learning platforms in use. Here also innovative approaches need to be found like for example dividing the group of students into subgroups, or combining synchronous with asynchronous learning.

Type of course is a main challenge when implementing the digital learning process, mainly for the topics where practical and laboratory sessions are a major part from the academic syllabus of the subject. To overcome this obstacle, the instructor may refer to/use online video's¹⁵ and other site educational materials¹⁶ dedicated for simulating a

¹⁵ U-tube

practical assay. Still, those videos do not fully replace practical sessions as in some assays students should have hands-on which facilitate the understanding and optimize the acquired skills. Pushed by the uniqueness of the present situation, the academic sector has to gather many of the available tools to achieve their goal.

Social and cultural contexts may also constrain the delivery of the courses. Noisy environment or objections to accept to connect synchronously from home might form challenges to the online learning in group. It is to be noted that in the present context Online Learning is entering in the very private spaces of the learners who may feel deprived from their comfort zone.

The **legal context** is another challenge. Several countries including Lebanon have no legal frame for the delivery and assessment of online education. Concerns regarding **recognition of the studies** are raised by students following this mode of learning in Lebanon and elsewhere.

¹⁶ JoVE STEM

Online Learners

The learners are at the centre of the learning process in general. This is particularly true in the case of **online learning**. As mentioned above online learning requires **active participation**. In parallel it offers the learner **flexibility** and the **comfort of her/his own space** in comparison with the classroom. To be successful in their learning online, learners must be **motivated** and **engaged**. They also **need to plan carefully their learning**.

Table 4. Some guiding elements to the online learners

Technology and Infrastructure	<ul style="list-style-type: none"> • Ensure a consistent and reliable Internet access at each learning session • Get familiar with the tools and explore the different features before starting the course or at the very early stages • Allocate a private space with minimal possible distraction
Attitude	<ul style="list-style-type: none"> • Self-motivation • Acknowledge procrastination and address the risk as soon as possible • Communicate with instructor and with other learners • Work to become an active learner • Be participative in online learning activities • Share knowledge
Communication	<ul style="list-style-type: none"> • Respect online privacy • Be open, clear and direct • Consider the best communication medium for an activity or request • Be warm, responsive, inquisitive, tentative • Show empathy • Avoid defensiveness • Communicate regularly with your instructor
Planning	<ul style="list-style-type: none"> • Make a plan of your study • Define your offline study tactics (notes, timely review, ...) • Identify supporting resources • Find study partners among the learners • Respect a personal study-life balance
Scholar	<ul style="list-style-type: none"> • Refer to the syllabus and course materials frequently • Consider your learning objectives • Review your notes at the earliest • Discuss learning outcomes and provide feedback to your instructor

In order to prepare the learners for successful online studies, **institutions** and programme managers **should train and offer them guidelines**. This might not be available in the present context of the Coronavirus outbreak. However, it remains preferable if institutions engaged in a transition towards online learning provide the students with a short guide that cover briefly the different aspects of this type of learning.

Such guidelines need to consider the wide spectrum of technological proficiency among the learners' cohorts.

Some guiding elements that might be useful to the learners in their online experience are provided in Table 4.

Infrastructure and tools

Technology plays a crucial role in online provisioning of courses and programmes. The **instructional decisions and choices** are to a major extent **dependent¹⁷ on the infrastructure and technology**. Two dimensions need to be taken into account:

- The infrastructure
- The tools

Infrastructure

In terms of infrastructure two elements are of importance: the **Internet** and the **digital devices** allowing to record courses' sessions and to interact with and among group members (web cams, recorders, laptops, smart phones ...). In the particular current context the **Internet availability and bandwidth need to be evaluated at the national level**. It is also crucial to make sure that the **students have affordable access to high quality Internet connections**. If this is not verified, innovative approaches need to be put in place at the instructional level in order to cope with connections deficiencies (e.g. privilege mostly or partly asynchronous learning, reduce the volume of contents, ...).

Learners and instructors need to connect and interact using digital devices (laptops, webcams, smart phones, ...). **In the present context it seems difficult to assure the usage of the institutions devices and facilities**. This has to be taken into account when deciding on policies and choices. **Any choice requiring hi-tech solutions would need to be avoided in order not to penalise unequipped learners**.

Tools: Learning Management System (LMS)

Learning management systems (LMS) are the major tools to be used in online learning. *A learning management system (LMS) is a software application for the administration, documentation, tracking, reporting, and delivery of educational courses, training, programs or learning and development programs¹⁸*. Instructors, learners, course directors, and executives shall be able to connect to the LMS using simple browser or a dedicated application.

Several commercial and free open LMS exist. **The selection of the LMS to use depends on the features it offers. The cost and the required infrastructure and**

¹⁷ Refer to tables 5, 6 and 7

¹⁸ Wikipedia

devices are other factors impacting the choice. Some features of a LMS are provided hereafter.

Features of an LMS

Table 5. Features of an LMS

Ease of use	This is generally an important feature but has obviously a particular importance in the present context where it seems difficult to have systematic heavy training of the LMS users
Reliability, security and scalability	High availability and security of access and contents are crucial characteristics of a LMS
Support for different learning approaches	Synchronous and asynchronous learning through a set of tools that permit to store and render contents and offer live interaction and conferencing
Management of users and roles	It is important for the LMS in use to allow management of users and roles. It might be crucial to have the possibility of bulk enrolment of users The LMS needs also to generate reports on the users activities
Management of contents	It shall offer a meaningful organization of the courses and contents and to relate these contents to classes and time schedule
Management of time and calendar	This includes scheduling of lessons, exams, quizzes and all instructional activities and appropriate notification to the involved parties
Testing and assessment	Formative assessments, online exams, quizzes, different types of questions (multiple choice, short answer, long answer, upload a file, ...), integration of scores and results, ... Authentication of the learners Possibility of proctoring by audio or video
Tracing learners' attendances	Besides the general reporting of activities it is important to be able to track the attendance of the learners to the lessons, quizzes and exams and to provide maximum details about those attendances
Competence management	Accumulate the courses and lessons completed by a learner
Support interfaces	It is important to have interfaces with standard protocols (e.g. scorm for content, ...)

Existing LMSs and tools

Several LMSs exist offering variants of features. A broad list of such solutions can be found at:

<https://en.unesco.org/covid19/educationresponse/solutions>

<https://docs.google.com/document/d/1BegghqpCD08YjZr9nIH5qN49GO8ssgwZSVKQt2Pp4dI/edit>

https://docs.google.com/document/d/1ccsudB2vwZ_GJYoKlFzGbtmftGcXwCIwxf-jkkoCU/preview#heading=h.zd7qtbyoksaj

<https://cft.vanderbilt.edu/2020/03/resources-for-just-in-time-online-teaching/>

<https://cft.vanderbilt.edu/2020/03/resources-for-just-in-time-online-teaching/>

The following table provides a non exhaustive list of existing tools.

Table 6. List of some existing tools

Type	Purpose	Existing tools
Learning Management System	<ul style="list-style-type: none"> • Manage students and roles • Manage sessions • Calendar • Provides resources • Quizzes and exams • Polls 	<ul style="list-style-type: none"> • Canvas • Opigno / Drupal • Moodle
Video and audio conferencing (chatrooms, webinars, sharing screen, scheduling meeting, ...)	<ul style="list-style-type: none"> • Online synchronous learning • Chat • Polls 	<ul style="list-style-type: none"> • BlueJeans • Google Meet • Microsoft Teams • Webex • Zoom
Live Streaming	<ul style="list-style-type: none"> • Online Asynchronous learning • Annotated video • Prerecorded experiments 	<ul style="list-style-type: none"> • Google Meet • JoVE • YouTube

Several Lebanese institutions have a previous experience in online learning and have adopted tools and systems. Efforts have to be spent to exchange good practices.

It is worth mentioning that the Erasmus+ HERE Lebanon is available to advise the Lebanese higher education institutions about the choices.

Quality in online teaching and learning

In the context of the Coronavirus outbreak, transiting to online learning has become a must. This requires huge efforts but should not divert the institutions from striving for a quality provisioning. Several efforts have been undertaken in the past years in order to define standards, criteria and indicators of quality in e-Learning and Online Education. ENQA¹⁹ has published a report²⁰ entitled “Considerations for Quality Assurance of e-Learning Provision”. In the following table the ten standards for internal quality assurance are reproduced. In the table we associate with each standard few selected elements to consider in connection with the present special context.

Table 7. Adapted ten standards from the ENQA report entitled “Considerations for Quality Assurance of e-Learning Provision”

<p>1. Policy for Quality Assurance</p> <p>Institutions should have a policy for quality assurance that is made public and forms part of their strategic management. Internal stakeholders should develop and implement this policy through appropriate structures and processes, while involving external stakeholders.</p> <p><i>Institutions’ quality assurance strategies shall be more adapted to reflect quality assurance policies and strategies for online learning, which may cover quality, pedagogical models, and innovation, can then be communicated to the public.</i></p> <p><i>Stakeholders may be particularly interested if the online learning strategy includes an explanation about the choices undertaken while transiting towards this mode of provisioning.</i></p> <p><i>Institutional policies for online learning may further include the constituting elements of quality, which include:</i></p> <ul style="list-style-type: none">• <i>Institutional support</i>• <i>Course development</i>• <i>Teaching and learning</i>• <i>Course structure</i>• <i>Student support</i>• <i>Faculty support</i>• <i>Technological infrastructure</i>• <i>Student assessment</i>• <i>Electronic security measures</i> <p><i>The institution may also define policies to grant proper access and ensure participation for those students affected by disability, illness, and other mitigating circumstances.</i></p> <p><i>The institution must define a policy/code of practice related to electronic security measures for the use of student data (privacy, security, consent, etc.), which also addresses fraud and consequences for students and staff members caught engaging in fraudulent conduct.</i></p> <p><i>Part of the institution’s cycle of continuous improvement includes ensuring a constant analysis and updating of the structure that provides service and support for online learning activities.</i></p>
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¹⁹ ENQA: European Association for Quality Assurance in higher education <https://enqa.eu/>

²⁰ E. Huertas, I. Biscan, C. Ejsing, L. Kerber, L. Kozłowska, A. M. Ortega, L. Lauri, M. Risse, K. Schorg and G. Seppmann, “Considerations for Quality Assurance of e-Learning Provision,” ENQA Occasional Papers 26, 2018, ISSN: 1458-1051

2. Design and Approval of Programmes

Institutions should have processes for the design and approval of their programmes. The programmes should be designed so that they meet the objectives set for them, including the intended learning outcomes. The qualification resulting from a programme should be clearly specified and communicated, and refer to the correct level of the national qualifications framework for higher education and, consequently, to the Framework for Qualifications of the European Higher Education Area.

It is important to make sure that the online teaching methodologies, in the present context, permit achieving the specific goals of the programme.

3. Student-Centered Learning, Teaching and Assessment

Institutions should ensure that the programmes are delivered in a way that encourages students to take an active role in creating the learning process, and that the assessment of students reflects this approach.

Institutions need to show how they managed the transition to online learning in a way to stimulate and engage students in the learning process (a step which may help prevent undesired dropouts).

In order to overcome the lack of direct face-to-face interaction, students may need encouragement to engage online with each other. Institutions can help by supporting the formation of online discussion groups for student-to-student contact. Online spaces for communication between teachers and students and among teaching staff can exist, too – the latter serving as a platform for sharing experiences and good practices.

Institutions engaged in online learning will find it necessary to pay attention to the development of learning materials and to incorporate any appropriate updates. Similarly, staff may need support in updating their knowledge in relation to teaching and assessment methodologies that are adapted to the online learning environment.

Regular revision on the basis of learning analytics and learner feedback will help lead to constant improvement.

4. Student admission, progression, recognition, and certification

Institutions should consistently apply pre-defined and published regulations covering all phases of the student “life cycle”, e.g. student admission, progression, recognition and certification.

Institutions can support students in making responsible decisions by providing advising services, diagnostic tests, and information about prerequisite knowledge and/or any required competencies. It is also helpful to share information about the online learning courses including mechanisms for dissemination of course materials, assignments, online assessment, IT requirements, and an estimate of the amount of time that students will need to dedicate to the course.

Recognition plays as important a role in the online learning context, as it does for on-campus studies. Academic recognition still has to be assured, and it will be important for institutions to give attention to the qualifications offered by online programmes in order to ensure the same level of recognition by professional bodies and employers providing the same learning outcomes.

5. Teaching staff

Institutions should assure themselves of the competence of their teachers. They should apply fair and transparent processes for the recruitment and development of the staff.

The role of teaching staff in the quality of online and face-to-face learning is crucial. Professional development for the teaching and facilitation in the online learning context may be required as part of the technological and pedagogical support services. Moreover, institutions should be aware of the greater workload related to the transition to online teaching.

The design of training programmes for teaching staff may be informed by a training needs analysis that

identifies training requirements (for example, by job function) and addresses the needs of existing and newly recruited staff. Training can be further improved if the institution promotes interaction among teaching staff for the sharing of good practices and teaching and learning achievements.

6. Learning resources and student support

Institutions should have appropriate funding for learning and teaching activities and ensure that adequate and readily accessible learning resources and student support are provided.

Learning resources

It would be considered a good practice for institutions to adapt their overall strategies to include an explanation of the development of their online learning programmes and technological innovation, an analysis of the particular needs of online learning programmes, and indicators that define the functionality and good use of the infrastructure. It may prove to be even more beneficial if the institution develops or adopts a separate, all-inclusive, fail-safe technology development plan that includes:

- electronic security measures (password protection, encryption, back-up systems, etc.) to ensure standards of quality and information integrity and validity, and*
- a centralised system that provides support to the building and maintenance of the infrastructure for online education.*

Institutions can better guarantee the effectiveness of delivering an online learning programme by acquiring, operating, and maintaining a computer-based system capable of: registering students for courses and programmes; distributing online learning materials to students; maintaining and updating records of student performance; conducting aspects of e-business; and facilitating communication between the institution, its students, and staff.

VLEs deserve special attention, for example, in order to ensure that sufficient financial resources are secured, thereby achieving system security and reliability, as well as service availability. Good VLEs are interoperable and robust, aligned with the institution's technical infrastructure, and regularly subjected to internal evaluations, updating, and improvements as needed. The technical infrastructure should ensure the accessibility of learning materials and the online assessment system by students with special educational needs.

Providing students with adequate library resources (ie. an e-library service), and any required training, is an institutional responsibility. At a certain stage of development study programmes could include virtual labs designed to guarantee the acquisition of particular learning outcomes.

Student support

Proper student support, which is often addressed by institutional policies and strategies and covers aspects such as tutoring, pedagogical, technological, and administrative-related needs, can help improve the student retention rate and success and satisfaction of students (assuming that students are aware of, have access to, and make use of the support). Support may be further enhanced if the institution analyses the profile of online learning students (including, for instance, their cultural backgrounds, technical experiences, technological equipment, etc.), and uses it to meet the specific needs of its students (for example, students with disabilities).

7. Information management

Institutions should ensure that they collect, analyse and use relevant information for the effective management of their programmes and other activities.

A good information management system will enable the agile, complete, and representative collection of data and indicators derived from all aspects related to online learning. Particular indicators for different online learning scenarios (online learning, distance learning in programmes or modules, and blended learning) can be included (for example, dropout rates, graduation/completion rates, etc.), and, combined with the measuring of processes and key results (specific indicators for online learning should be defined).

Staff are encouraged to access reports and information relevant to their roles and similarly for students and their own records (registration status, progress, achievement, etc.), for example, through web

interfaces rather than restricted, campus-based networks.

Where e-learning takes place, the quality assurance system ensures that the collection of data respects the privacy rights, and it considers intellectual property issues.

8. Public information

Institutions should publish information about their activities, including programmes, which is clear, accurate, objective, up-to-date and readily accessible.

Transparency, with regard to not only the learning value but also the technological requirements, learning resources technology, and available technical support available, is key.

9. Ongoing monitoring and periodic review of programmes

Institutions should monitor and periodically review their programmes to ensure that they achieve the objectives set for them and respond to the needs of students and society. These reviews should lead to continuous improvement of the programme. Any action planned or taken as a result should be communicated to all those concerned.

Programme improvements may be stimulated by the enactment of ongoing programmes for evaluating the effectiveness of the online format, for assessing teaching and learning methodologies, and for making systematic use of this information to, for example, inform future planning and align with the institution's strategic direction. Alongside this, recent developments in the field of ICT and pedagogy should be considered continuously.

10. Cyclic external quality assurance

Institutions should undergo external quality assurance in line with the ESG²¹ on a cyclical basis.

Institutions providing online learning are encouraged to make contact with their relevant quality assurance body to exchange information and help both parties better understand the specificities of online learning and its assessment.

²¹ European Standards and Guidelines

Managing HE Programmes in Pandemic Times

The higher education institutions need to respond to the demand for online learning with the Coronavirus outbreak. The following steps are suggested.

1. Assess your current situation

In order to succeed in the online learning transition many strategic and operational questions need to be addressed. The present guide provides some elements to reflect upon in order to make the suitable choices.

2. Choose the appropriate approach

Being forced to engage in online learning several choices need to be taken. As suggested at several points in the present guide and since the transition is at fast pace, one would advise to remain the closer possible to the approaches engaged before the outbreak of Coronavirus so as not to induce additional disturbing elements to the learners. This is even truer since the institutions have limited margin to prepare both instructors and learners for this transition.

3. Select the right technologies

Successful online learning implementation requires robust and reliable platforms and technology. This makes the learner experience productive. The present Guide has provided several hints about those choices.

4. Adapt your curriculum and instructional design to the online context

The present Guide offers a variety of hints in this direction. It is crucial to define guiding frame and key principles to this massive transition and to encourage the faculty members to be innovative in proposing solutions.

5. Support the learners and staff

Due to the limitations in the availability of both resources and time, support must be offered to the learners and staff to engage in this transition. Several hints are provided throughout the present Guide in this direction. Smart compromises that preserve quality must be identified. Communication is crucial in this perspective.

6. Engage in a close follow-up

The transition is critical, essential and happens in a context full of concerns and challenges. It is important to have regular follow up to monitor the transition and take prompt necessary adjustments.

Concluding Thoughts

Summarizing the different issues, approaches and suggestions related to the sudden and massive transition to online learning and covered in the present Guide is not straightforward. However, the following general principles can be formulated:

- While acknowledging the crucial role of technology in online education, it must be recognized that a successful implementation of online learning requires above all a solid academic approach that takes into account the local context.
- Various choices exist at both technological and academic levels. A compromise shall be sought while trying to remain the closer possible to classical approaches used before the pandemic in order to avoid further disturbing the students and other stakeholders.
- The instructors are the best placed to decide on the approaches and they have to be involved in the decision making.
- The tools to be adopted for online learning must conform to the learning objectives and expected outcomes.
- Sufficient support must be provided to the instructors as well as the learners who are forced to embark in this transition to online learning.
- Motivation, understanding and change of attitudes and disciplines are necessary to make a successful transition to online learning.
- The reliability of the evaluation is crucial. Instructors must be encouraged to be innovative in defining the methods of evaluation and to use appropriately the tools in this regard.
- Close and proactive follow-up is required from the administration.
- Infrastructure is a major pillar on which depends the success of the online learning. Efforts at both institutional and national levels are needed to assure minimal Internet services levels and electrical power.
- At the national level a better organisation of the recognition process might be needed to accompany this case of force majeure.

The Guide provides elements of information related to the previous principles.

The Coronavirus Outbreak is a disaster overrunning our global humanity. The Erasmus+ HERE team in Lebanon expresses full compassion. The team remains at the disposal of the institutions and colleagues to offer any support²² within the available time and resources.

Being positive in our outlook to learning is probably our prospective destiny. This transitional period is also an eye opener and offers an opportunity to revisit our approaches and create a breakthrough in higher education towards a profound transformation (not only for e-Learning but also for traditional “face to face” settings). Getting used to various digital tools and instruments of modern technologies may be a chance to advance quality and excellence in our learning systems. Additional reflection, discussions, sharing of practices will facilitate and catalyse this transformation to better learning systems that we the community of learning strive for. The current situation uncovered the weak research structures in several places and the need to be at the forefront in different domains (health care, new technologies, artificial intelligence, etc.). An in-depth analysis of the structures in place is essential in order to be better prepared to face similar challenges if they appear in the future.

PS: This document is a working document and shall be updated according to the developments in this area.

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