



SEA-EU Toolkit for the Evaluation of Online Programmes

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Preamble

This toolkit is the result of a project that is part-funded by the European Union and entrusted to the Alliance known as the **European University of the Seas** (SEA-EU), one of 41 current **European Universities Initiatives**. This Alliance comprises the Universities of **Cádiz** (Spain), **Western Brittany** (France), **Kiel** (Germany), **Gdańsk** (Poland), **Split** (Croatia), and **Malta**, all of which participated actively in order to achieve this common goal.

The challenges that online learning brings with it must be matched by robust research and analysis that serves to maximise the opportunities available in this powerful means of generating and sharing knowledge. The SEA-EU Alliance constitutes a pool of resources from various fields of research and is enriched by a number of scholars who are already seasoned in the practice and delivery of online learning. This project arose from the awareness that, whilst the literature and evidence regarding the development and use of online learning is extensive, the assessment and evaluation of online programmes is minimally addressed in the literature. This toolkit seeks to address this gap.

The format of this toolkit is intentionally concise, and is intended primarily for self-evaluation by educators. In other words, it is a resource for educators to gauge and improve their performance in the learning environment in order to enhance learners' interest, engagement and learning. The main target population of this resource is, therefore, educators involved in online learning. However, it can also benefit learners since it would make them more cognizant of the learning process, and more aware of the extent to which a programme in which they participate employs the elements noted in the toolkit. In addition, the toolkit may lend itself well to education managers, auditors, reviewers and evaluators because it is a means of assessing an educator's level of involvement in a programme. Finally, online programmes' stakeholder providers may also find this resource helpful: it empowers them to give more input in the design phase of a programme, ensuring that a programme is more conducive to reaching its intended learning outcomes.

This toolkit does not furnish numeric or quantifiable results. Rather, it focuses on the qualitative aspect of online learning. It is discipline-neutral. It is of a generic nature. Indeed, the toolkit may be tweaked in order to be more suitable for specific disciplines or areas of study. The authors welcome feedback in this regard. As noted above, although, as the title indicates, this resource was designed for *assessing* and *evaluating* online programmes, it may be employed in the design and development of online programmes.

Lastly, this toolkit, which was developed by the SEA-EU Alliance, is not a final document: it is not a finished product that is meant to stand the test of time. In maintaining relevance and validity, the toolkit will need to be assessed and improved along the years. Its suitability and applicability in different scenarios will need to be determined in the course of its existence and utilisation, and related literature and evidence will need to be incorporated accordingly along the period of its application.

Ownership of the toolkit is jointly held by the six partners of the SEA-EU Alliance. Every partner will pursue a caretaking role of the toolkit for the duration of the project. The rotation of the caretaking role is as noted below. At any point, queries and feedback from users or reviewers of the toolkit may be channeled to the respective caretaker partner.

Schedule of rotation of the caretaker role:

April - July 2021 UM

July - August 2021 UCA

September - November 2021 UBO

December - February 2022 CAU

March - May 2022 UG

June - August 2022 UNIST

September - October 2022 UM

Instructions to partners for adding or changing to the toolkit

- Added information needs to have a reliable referenced source (e.g. scientific studies) and it must be cited in APA 7th Edition
- Added information should refer to one of the four pillars of the toolkit
- Content changes are to be initialised and contact information is to be noted.
- Changes should be trackable, that is, they should be done in “Suggesting Mode”. Suggested changes will be endorsed or otherwise by the caretaker partner of the toolkit at time of the changes.

- No potentially incorrect, insensitive, disrespectful or discriminatory content is to be included.

Introduction

This toolkit is constructed across four pillars:

1. Teaching presence
2. Building a community of learners
3. Scaffolding learning/teaching strategies
4. Approaches to assessment

For the purposes of this toolkit the four pillars are defined as follows:

Teaching presence begins before the course commences as the teacher, acting as the instructional designer, plans and prepares the course of studies, and it continues during the course, as the instructor facilitates the discourse and provides direct instruction when required. (Anderson et al., 2001)

A **community of learners** is a group of individuals who collaboratively engage in purposeful critical discourse and reflection to construct meaning and confirm mutual understanding (Garrison, 2007)

Scaffolding is an instructional method that progressively moves learners toward greater independence and understanding during the learning process (Shaw, 2019)

Assessment is the process of gathering and discussing information from multiple and diverse sources in order to develop a deep understanding of what learners know, understand, and can do with their knowledge as a result of their educational experiences; the process culminates when assessment results are used to improve subsequent learning. (Huba and Freed, 2000)

A glossary of terms is provided at the end of this document, together with a list of related resources.

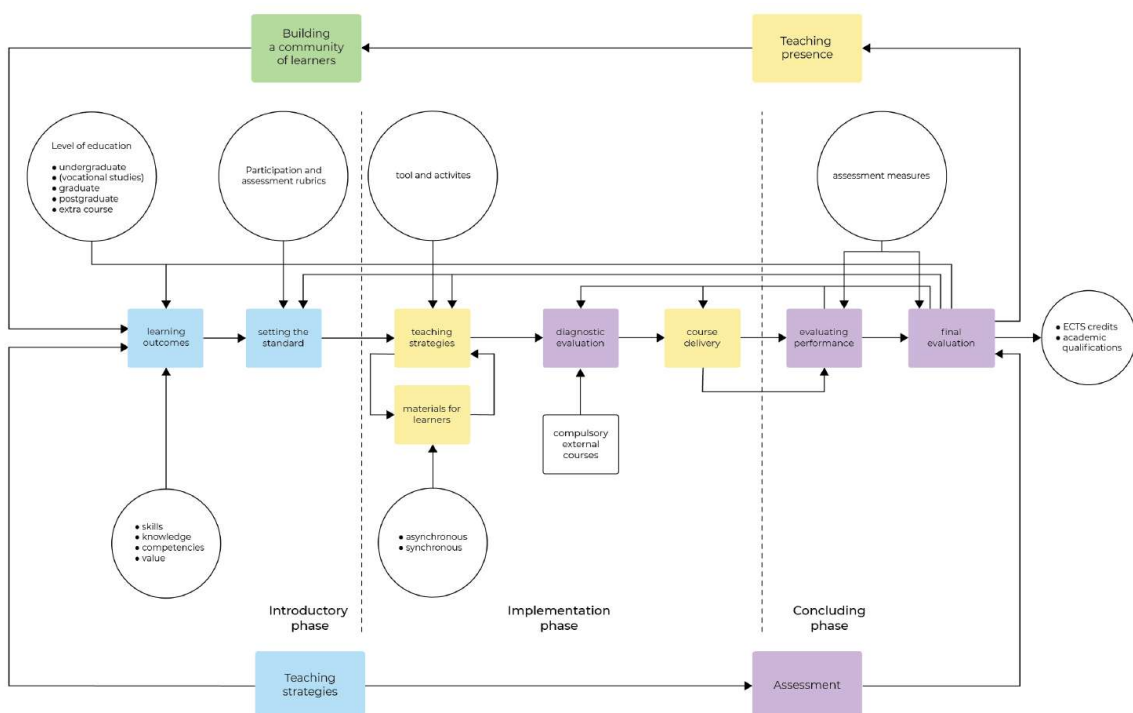
The Mind Map

This toolkit is captured as a mind map, which comprehensively depicts its content and function. Essentially, the mind map is a visual aid intended to

guide the educator through the whole process of designing, delivering, assessing and evaluating an online programme. It provides a visual representation of the various building blocks that comprise the process, beginning with the stages of planning the programme, moving on through its delivery, and ending with an evaluation in an effort to guide revisions and improvement. Programme refers to a course unit/ module or an entire programme of studies.

This mind map of the toolkit has two main strengths. Its primary one is that it offers a bird's eye view of the whole process and thus helps the educator to easily locate elements that must be implemented at a certain place/phase, within the continuum of the learning process. The secondary one is that it has been enriched by clear buttressing indications of what the educator's role is at every stage. Such indications are provided to the educator through guidance regarding the approaches and techniques that are to be adopted at different phases of the development of a programme, coupled with a rationale. Question sets are provided for every phase of the process of developing and delivering an online programme. The question sets should serve as a checklist against which the educator can ascertain that all the elements associated with efficient and effective online learning have been incorporated into an online programme.

The mind map is presented below. When the user clicks on a section of the map, the content information regarding the specific section of the mind map is accessed.

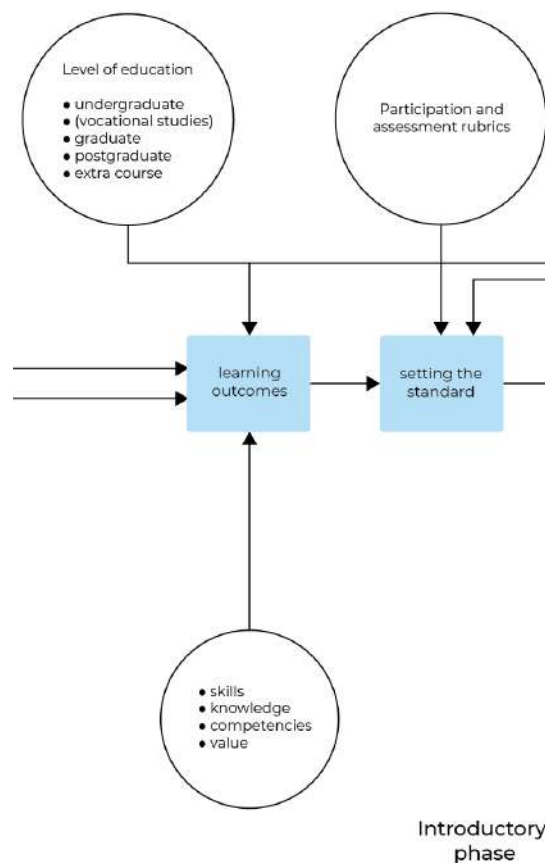


The content of the different sections (which may be accessed by clicking on the text in the mind map image) is presented in detail below.

The ADDIE (Analysis, Design, Development, Implementation, Evaluation) Model (Kurt, 2017) was adopted as a theoretical framework of the toolkit. The main elements of this model were grouped into three main phases; introductory, implementation and concluding phase. The four pillars identified above, namely teaching presence; building a community of learners; scaffolding learning/teaching strategies; and approaches to assessment, guided the development of each of these three phases.

Introductory Phase

This phase addresses the analysis, design and development stages of the ADDIE Model.



Objectives

The main focus at this phase is the planning and preparation required to design and organise an online programme which is student-centred. During the introductory phase, intended learning outcomes of the online programme are to be determined, in line with the course objectives. The content of the programme requires careful planning and design, bearing in mind the principles of metacognitive scaffolding and the diversity of the community of learners in the programme. Flexibility in an online learning environment is crucial to support self-directed learners within such programmes.

The questions set out below are meant to guide the evaluation of the introductory phase.

Guiding Questions

Recognising and addressing diversity of learners and their needs

- What are the needs and expectations of learners? (E.g. digital literacy)
- Has feedback been sought from alumni?
- Do learners have fora that they can participate in?
- Is the learning environment accessible to all the participants?
- Are platforms for communication easily accessible?
- Did the learners and educators create a profile page in the virtual learning environment?
- Is information about learners' prerequisite knowledge and skills available?

The use of guidelines and policies

- Are learners and instructors following the same guidelines?
- Are any policies, and guidelines regarding course ground rules included? (E.g. Netiquette)
- Has a calendar or schedule been created?
- What strategies for learning will be included?
- Has course content been established, including learning outcomes?
- Has a list of necessary skills been created for learners to be successful in assignments?
- What tools for evaluation will be used? Have they been included in a policy?
- Are learners aware of what is expected to achieve each grade?

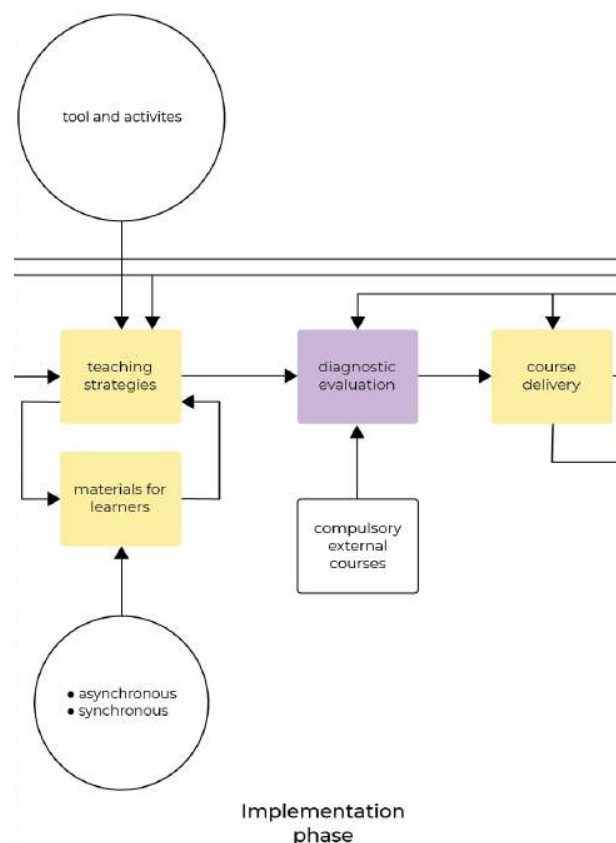
- Have assessment measures been developed?

Tools to enable the achievement of learning goals

- What tools are being used? (E.g. rubrics, mind map, fora)
- Are different audio-visual tools being used?
- Is the tool being used targeting a specific learning outcome?
- How can they be used as a tool during classes?
- Is there a link between tools during the programme?
- Do learners know *why* they are doing each activity and using each tool?
- Are learners using knowledge gained from tools to influence their understanding of the subject?
- Are the ground rules for the use of such tools set clearly?
- Are digital tools being used to provide guidance and background information if learning goals are not reached?

Implementation Phase

This phase addresses the implementation phase of the ADDIE model.



Objectives

The focus of this phase is that of building a community of learners, whereby knowledge and skills enhancement is enabled through interactive communication, feedback and a culture of collaboration. The main task, therefore, entails facilitating and monitoring activities that encourage communication and interaction. This phase requires promoting positive discourse that contributes to the creation of shared values and enables learning.

In the virtual environment, learners need to feel comfortable and relate to their environment. In turn, the presence of the educator in different activities should follow the principles of scaffolding and shift the focus from the educator to the learners. Different modalities for learning can be adopted in relation to learners' needs and expectations. Through active evaluation, the educator can identify learners' progress throughout the programme. A collaborative environment which fosters self- and peer-evaluation encourages learners to build connections within an established (online) community of learners.

The questions below seek to guide the evaluation of the implementation phase.

Guiding Questions

Nature of activities

- Is there active feedback regarding activities from learners at regular intervals throughout the programme?
- Is there an opportunity for peer evaluation? (E.g. diaries and portfolios)
- Are errors tolerated and used as a learning opportunity?
- Can the activity be divided into smaller parts and will this be beneficial?
- Are there collaborative and cooperative tasks included in the programme?
- Are tools regularly engaging the audience?
- Can learners self reflect on the activities?

Quality and extent of interactions

- Are there interactive and cohesive responses using positive language?
- Are there conversations surrounding good practices?

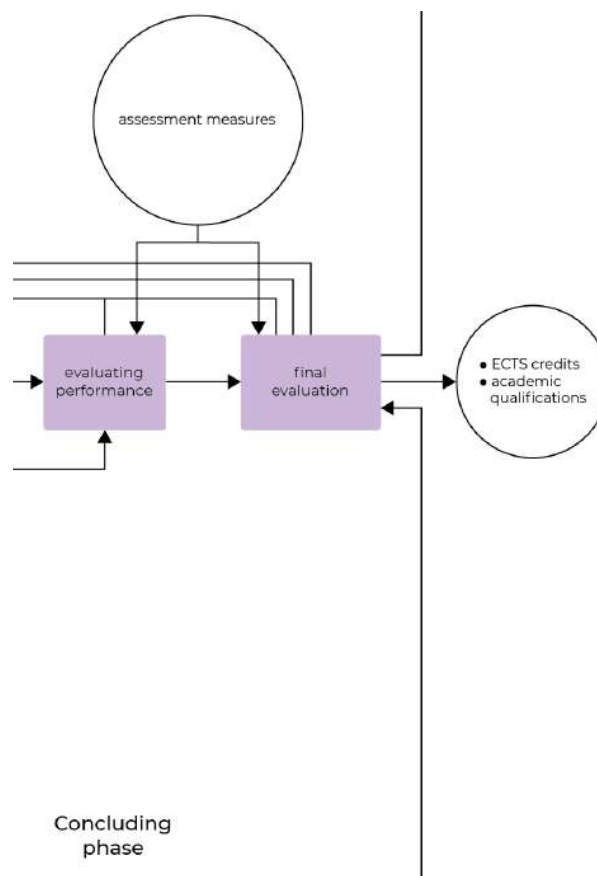
- Is there the possibility to express, discuss answers and listen to other learners?
- Are there enough human resources to facilitate an engaging community?
- Have ice-breakers been created?
- Are interactions fostering a positive atmosphere?

Content of the course

- Have the minimum course expectations been reached?
- Does the course content foster collaboration?
- Is the content addressing course learning outcomes?
- Has the content been evaluated for its applicability to different learning styles?

Concluding Phase

This phase addresses the concluding phase of the ADDIE Model.



Objectives

The focus of this phase is on measuring and gauging the effectiveness of evaluation strategies. Ongoing self-evaluation by educator and learner during all the phases of the course is paramount. Through continuous feedback and regular appraisal mechanisms, the learners' satisfaction, participation and progress can be observed. An evaluation of the possibility to learn from errors and a tolerance for discussion must be fostered in order to accommodate the above. The aim of formative and summative assessments should be in line with course intended outcomes, irrespective of the process itself. Assessment strategies need to take into account the different learners and adopt an element of flexibility. Regular revision of methods of facilitation on the basis of virtual learning environment data analytics and also from feedback from learners on the learning experience, will help lead to constant improvement and enhancement of a programme.

Guiding Questions

Facets of evaluation

- Have assessment measures been evaluated?
- Is there opportunity for self-evaluation? How is this used?
- Is there opportunity for peer-evaluation? How is this used?
- Is there opportunity for external-evaluation? How is this used?

Actions employed

- Are computer analytics tools used for collection of data metrics on activity and student participation?
- Is feedback being given on time?
- Is action being taken on student feedback? Has this been relayed back to learners and tutors?
- Is feedback being given to learners individually?
- If social media is used for teaching and learning and are related diagnostics being used for evaluation?

Glossary

Active feedback - Continuous, specific and focused feedback on teaching and learning given throughout the programme of studies. This can be about positive and/or negative aspects of a learners' performance, direct and always informal and constructive.

ADDIE Model - ADDIE stands for an instructional design framework to develop courses. The name is an acronym for the five working phases, which lead to the building of a training and performance support tool:

- Analysis
- Design
- Development
- Implementation
- Evaluation

Other useful link:

lib.purdue.edu/sites/default/files/directory/butler38/ADDIE.pdf

Assessment - The term assessment refers to a wide range of tools and methods that educators use to evaluate, and measure learning progress, knowledge and skill acquisition and/or educational needs of learners.

- **Formative assessments** are used to monitor student learning and seek to provide ongoing feedback that can be used by educators and students to improve their teaching and learning respectively.
- **Summative assessments** are used to evaluate student learning at the end of a programme/ module. These are typically scored and graded assignments, examinations or projects that are used to determine whether learners have reached the intended learning outcomes of the programme of studies.

Development (as a component of the ADDIE Model) - in the development phase, designers and developers create and assemble content defined in the design phase. The team revises the project according to feedback. Finally a pilot test may be conducted.

Design - The design should enable the user an efficient, effective, appealing, engaging and inspiring acquisition of knowledge.

E-learning - learning conducted via electronic media, typically on the internet (*dictionary definition*). Broader definition includes formalized teaching using hardware (computers, tablets, smartphones etc.) and internet tools, and in particular digital tools, online platforms and electronic educational materials enabling transfer of skills and knowledge

Evaluation - The term evaluation is the assessment of the effectiveness of teaching, teaching strategies, methods and practices of teaching (pedagogy) on the learning process of learners. It provides teachers with feedback on their teaching and learners feedback about their learning.

Implementation (this also includes assessment) - The implementation is the realization of methods and practices of teaching in the learning process. It represents the action that follows the preliminary thinking of how things should be done.

Online collaboration - refers to connecting various stakeholders using digital tools and online platforms that allow communication in an online space via video, audio and text

Online learning - also refers to learning conducted using hardware (computers, tablets, smartphones etc.) and internet tools (digital tools, online platforms and electronic educational materials) enabling transfer of skills and knowledge. The main difference to e-learning is related to the fact that online learning is purely based on the internet and available digital tools. It therefore offers flexible timetables and is regarded as a viable alternative to stationary study offering a broad collaboration and a possibility to learn in various remote locations and teaching institutions.

Rubrics - an evaluation tool/guidelines to define academic expectations for learners explaining connections between learning (what will be taught) and assessment (what will be evaluated), usually provided to learners before they begin an assignment. A tool to measure learners attainment against a consistent set of criteria or/and a scoring instrument to determine grades or the degree to which learning standards have been demonstrated or attained by learners.

Source: edglossary.org/rubric

- Other useful links:
 - study.com/teach/rubrics.html
 - airacademy.asd20.org/Teachers/William_Geis/Documents/College-Application-Essay-Scoring-Rubric.pdf
 - uwf.edu/academic-affairs/departments/cutla/supporting-pages/examples-of-rubrics
 - imoberg.com/files/2008_Self-Assessment_through_Rubrics.pdf

Scaffolding - an instructional method that progressively moves learners toward greater independence and understanding during the learning process, based on three points of the learning process: 1) what the learner cannot do, 2) what the learner can do with assistance, 3) what the learner can do unaided. Jumaat and Tasir (2014) identify four types of scaffolding that can occur in online courses:

- **Procedural scaffolding** - helps learners use the tools available to them
- **Conceptual scaffolding** - helps learners determine what to consider in learning (that is, it guides them to prioritize fundamental concepts)
- **Strategic scaffolding** - suggests alternative ways for learners to tackle the learning problems they encounter
- **Metacognitive scaffolding** - guides learners in the thinking process and helps them self-assess during learning

Source: ctl.wiley.com/scaffolding-learning-in-the-online-classroom

- Other useful links:
 - edglossary.org/scaffolding/
 - files.eric.ed.gov/fulltext/ED474301.pdf

Self-directed learning - Self-directed learning describes a process in which learners take the initiative, with or without the help of educators, in diagnosing their learning needs, identifying their learning goals and the resources required for their learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes.

Social media learning - Social media learning refers to knowledge, information and skills which are acquired through social technologies such as blogs, wikis and social network platforms. These allow learners to collaborate, engage in academic conversations and create and share content.

Stakeholders - Organisations, institutions, groups and individuals who influence the project or who are directly or indirectly influenced/affected by the project.

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Lead authors / Curators : **Dr Stefan Attard, Dr Ermira Tartari Bonnici, Dr Michelle Camilleri, Dr Maria Cassar, Dr Adrienne Grech, Dr Veronica Montebello, Dr Josef Trapani,**
University of Malta

Design: **Mr Gabriel Izzo,**
Marketing, Communications
and Alumni Office
University of Malta

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