

IIOE QUALITY ASSURANCE 2.0: FRAMEWORK AND TOOLKIT FOR DRIVING AND SUPPORTING ONLINE AND BLENDED TEACHING AND LEARNING

— OCTOBER 2021 —



Part I: Purpose and Objectives

1. Why is IIOE Quality Assurance 2.0 developed?

The outbreak of the Covid-19 pandemic has highlighted the urgency of adopting online and blended teaching and learning, especially at Higher Education Institutions (HEIs) in developing countries. Even as university campuses are gradually reopening, online and blended teaching and learning (OBTL) has become a new norm supported by face-to-face learning rather than a supplement to face-to-face learning. UNESCO's global survey "COVID-19: Reopening and Reimagining Universities" launched in June 2021, has highlighted that many countries are adopting OBTL in their study programmes, and the blended mode has become the most preferred mode of delivery.

However, adopting OBTL is challenging for many HEIs, especially those in developing countries. Challenges include but are not limited to the lack of institutional organisation structure, policies and digital infrastructure, limited capacity and experience to conduct OBTL, lack of support for students to manage their learning online, and limited capacity for HEIs to develop new programmes and courses to meet the changing demands of the labor market and society in the digital era. Addressing these challenges requires a holistic approach that coordinates the efforts of all higher education stakeholders, including the higher education workforce, HEIs, governments, and the private sector. An updated and validated quality assurance (QA) framework and an associated toolkit have to be developed for HEIs to build an ecosystem that drives and supports OBTL.

The International Institute of Online Education (IIOE), launched by UNESCO-ICHEI with 11 leading HEIs in Africa and Asia, 9 global EdTech enterprises, and 4 HEIs in China in December 2019 in Shenzhen, China is committed to addressing the aforementioned challenges of higher education in developing countries. Supported by UNESCO, IIOE aims to strengthen the capacity of HEIs and its higher education workforce for OBTL. Such institutional capacity will ensure that the partner HEIs are more likely to create an ecosystem that drives and supports OBTL for improved access to, as well as enhanced equity and quality of higher education in developing countries, in alignment with SDG4.

IIOE supports partner HEIs in the following ways:

- Teacher Professional Development (TPD) programmes tailored to the demands of partner HEIs;
- Multilingual ICT-in-Education online courses;
- Institutional policy guidance, especially the IIOE QA Framework for OBTL, and the IIOE Competency Framework for the Higher Education Workforce (IIOE-CFHEW); and
- An open online education platform with a Learning Management System (LMS) that connects global partner HEIs for resource and course sharing.

Quality Assurance is an essential part of IIOE. IIOE QA 1.0, including the first version of the framework and its associated online self-assessment tool, was an integral part of the launch of IIOE by UNESCO-ICHEI in 2019. IIOE QA 1.0 has been adopted by the partner HEIs. Feedback and suggestions were solicited during its implementation phase. Most of the IIOE partner HEIs highlighted the need for a more updated QA framework to support their OBTL efforts in the post Covid-19 era. UNESCO-ICHEI has reviewed and revised the QA framework, exploring the development of a toolkit to support the operationalisation of the framework.

IIOE QA 1.0 provides a holistic approach towards the quality enhancement of OBTL, but the existing framework provides limited clarity and support on operationalising related guidelines at the institutional level. In addition, the Covid-19 pandemic drastically changed the higher education landscape, in which HEIs have to adapt quickly to conduct teaching and learning, research, and administration and management in online or blended mode. However, the global pandemic has significantly reshaped how people perceive online and blended higher education. Practices that were initially conceived as covid-response measures, including but not limited to online teacher professional development, digital curriculum, online assessment, and university-industry partnership, are likely to remain even after the pandemic. The fast-changing higher education landscape calls for actionable and effective guidelines on how HEIs could drive and support OBTL, especially those institutions in the global south with unique contexts and limited resources. IIOE QA 2.0 is developed to support HEIs to navigate this new landscape by providing a toolkit in addition to an updated quality assurance framework. The toolkit offers a suite of tools and resources to operationalise the quality assurance of OBTL.

2. From IIOE QA 1.0 to IIOE QA 2.0

The development of IIOE QA 1.0 was led by UNESCO-ICHEI, and chaired by Professor LIM Cher Ping, Chief Expert of IIOE. In order to develop a framework as part of IIOE QA 1.0, an extensive review and analysis of existing international, regional, and national QA frameworks for OBTL was conducted. The categorisation of the frameworks is presented in Table 1.

	Accreditation	Benchmarking	Certification	Advisory Framework
International				Commonwealth of Learning
Regional	Latin American and Caribbean Institute for Quality in Distance Education (CAL-ED).	Australasian Council on Open, Distance and E-Learning (ACODE); Benchmarking in European Higher Education: A step beyond current quality models.	European Association of Quality Assurance in Higher Education (ENQA)	African Council for Distance Education Quality Assurance and Accreditation Agency (ACDE); Asian Association of Open Universities (AAOU); African Virtual University (AVU).
National	Council for Higher Education Accreditation (CHEA) (U.S.); Quality Assurance Agency for Higher Education (QAA) (U.K); E-learning Standards for Licensure and Accreditation by Commission for Academic Accreditation, Ministry of Higher Education and Scientific Research (United Arab Emirates).			NADEOSA (South Africa)

Table 1. Mapping and analysis of Quality Assurance frameworks in IIOE Quality Assurance Framework 1.0

IIOE QA 1.0 was validated by 11 IIOE founding institutions in Africa and Asia Pacific in December 2019 and widely utilized in partner HEIs as a reference to revise and complement their own QA framework to support and drive OBTL. Although initially designed for IIOE partner HEIs, IIOE QA 1.0 was extended to a wider global higher education community in Africa, Asia and Arab States with the support of the UNESCO network.

The framework developed in IIOE QA 2.0 is an updated version of the framework developed in IIOE QA 1.0. Although it has kept most of the components of the original framework, two new components and associated sub-components have been added and existing sub-components and statements have been revised. IIOE Quality Assurance Framework 2.0 also responds to the challenges identified by IIOE partner HEIs in transition to online and blended higher education during Covid-19 and beyond in its revision and refinement. Meanwhile, IIOE Quality Assurance Framework 2.0 studied the promising practices from the latest developed or updated quality assurance frameworks (as shown in Table 3) in the world and draws upon experiences from them to refine its own.

Compared to IIOE Quality Assurance Framework 1.0 with 6 Components, 20 Sub-components and 60 Statements, IIOE Quality Assurance Framework 2.0 consists of 8 Components, 20 Sub-components and 79 Statements covering HEIs policies, structure, digital infrastructure, higher education workforce, online programmes design, students and partnership. Component 2: Institutional Structure and Culture, Component 7: Collaboration and Partnerships, and Component 8: Monitoring and Evaluation are the two new components added. Table 2 compares the differences between the two frameworks of QA 1.0 and QA 2.0.

IIOE Quality Assurance Framework 2.0

	8 Components	20 Sub-Components	79 Statements
1	Institutional policies and mission	3	9
2	<u>Institutional Structure and Culture (Newly added)</u>	3	4
3	Digital Infrastructure and Resources (revised)	2	10
4	Online and Blended Program/ Course Development and Implementation	3	22
5	<u>Student Support (Revised based on previous Component 4 and 5)</u>	2	14
6	Staff Professional Development and Support	3	10
7	<u>Collaboration and Partnership (Newly added)</u>	2	2
8	<u>Monitoring and Evaluation (Newly added)</u>	2	8

IIOE Quality Assurance Framework 1.0

	6 Components	20 Sub-Components	60 Statements
1	Institutional policies and mission	4	11
2	Teaching and learning Infrastructure and Resources	3	9
3	Development and Implementation of Online and Blended Programmes/ courses	6	17
4	Learner assessment and evaluation	3	8
5	Learner learning support and progression	2	4
6	Professional development and support for teachers and staff	2	11

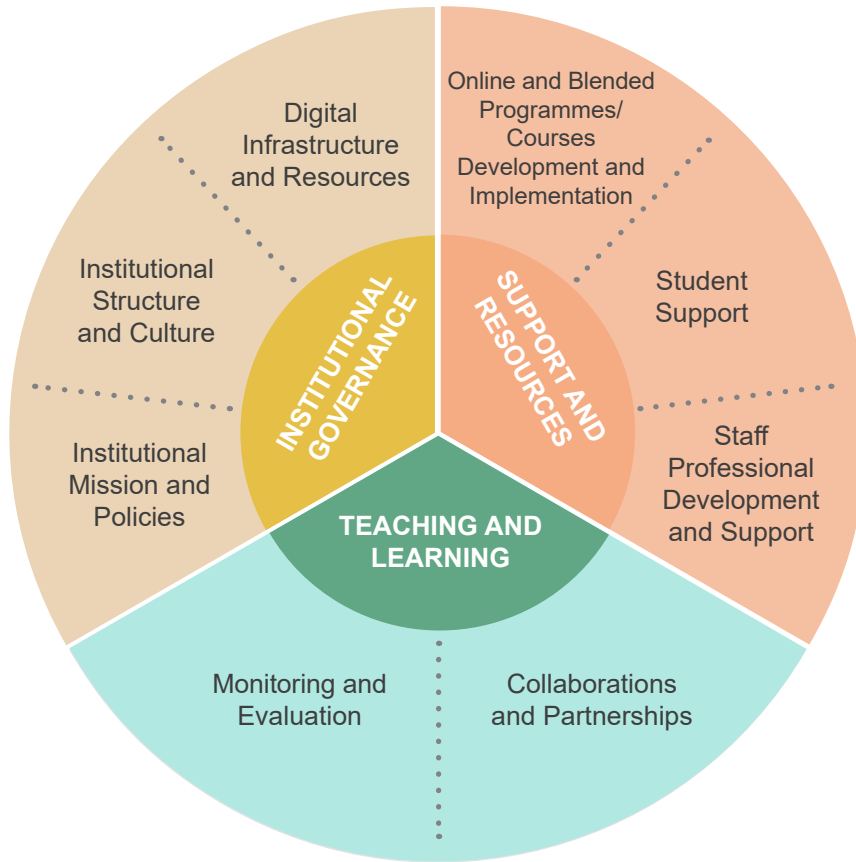
Table 2. Comparison of IIOE Quality Assurance Framework 1.0 and IIOE Quality Assurance Framework 2.0

Scope	Accreditation	Benchmarking	Certification	Advisory Framework
International				Benchmarking Toolkit for Technology-Enabled Learning by Commonwealth of Learning/COL (2019)
Regional	CAL-ED (Latin-America)	EADTU(Europe)	European Maturity Model for Blended Education by EADTU(2021)	ACDE (Africa), AVU (Africa), Quality Assurance of Online Learning Toolkits by Australian Government and APEC (2017), Practical Guide For the Quality of Distance Learning Programs by Quality Assurance and Accreditation Council of the Federation of Arab Universities (2020)
National	CHEA (U.S) , QAA (U.K) ,UAE (UAE)	Benchmarks for Technology Enhanced Learning by Australasian Council on Open, Distance and e-learning/ ACODE (2014)		NADEOSA (South Africa)
Institutional				Higher Education Digital Capability (HEDC) Framework, by HOLONIQ (2020)
Programme/ Course				Statutory Quality Assurance Guidelines for Providers of Blended Learning Programmes Quality in MOOCs: Surveying the Terrain by COL (2016) ; National Standards for Quality Online Courses (2019)

Table 3: Mapping and analysis of Quality Assurance frameworks in IIOE Quality Assurance Framework 2.0

Part II: IIOE Quality Assurance Framework 2.0

IIOE Quality Assurance Framework 2.0



Component 1: Institutional Mission and Policies

The institution has clear mission statements and has formulated policies and mechanisms for procedures, efficient management and administrative capacity, physical facilities and adequate resources for the implementation of online and blended teaching and learning (OBTL).

Sub-Components	Statements
1.1 Mission	<ul style="list-style-type: none"> • The institution has a set of clearly defined mission statements for the OBTL initiative aligned to its vision.
1.2 Planning	<ul style="list-style-type: none"> • The institution has a strategic plan in place that drives and supports quality OBTL activities. • The institution plans to provide access for all students (race, religion, socioeconomic, gender and urban/rural) to online and blended programmes/courses. • The institution has a specific budget allocated for enhancing and monitoring the use of digital infrastructure and resources for quality OBTL.
1.3 Policies	<ul style="list-style-type: none"> • The institution has a policy document about the quality assurance and monitoring and evaluation of OBTL. • The institution has a staff performance & appraisal policy and system that promote staff accountability in designing and implementing OBTL. • The institution has a policy that adopts a similar workload for online and face-to-face teaching and learning activities. • The institution has a policy on credit recognition for online courses. • The institution has a policy about facilitating diversity, e.g. gender, political ideology, religion, nationality, etc. in the online and/or face-to-face courses.

Component 2: Institutional Structure and Culture

The institution has a well-defined institutional structure that allocates specific roles and responsibilities to organisational units for implementing OBTL. The institution also seeks to create a culture that is conducive to OBTL practices.

Sub-Components	Statements
2.1 Structure	<ul style="list-style-type: none"> • The institution has a centralized committee that coordinates OBTL initiatives and efforts across faculties in the institution. • The institution has an organizational structure that facilitates distributed leadership to plan and implement OBTL in programmes, departments and faculties.
2.2 Culture	<ul style="list-style-type: none"> • The institution has a conducive culture that provides the conditions for innovative OBTL practices.
2.3 Roles and responsibilities	<ul style="list-style-type: none"> • The institution has clearly defined terms of reference for each committee, workgroup, and unit at institutional, faculty, programme, and departmental level regarding the implementation of OBTL.

Component 3: Digital Infrastructure and Resources

The institution has adequate and appropriate digital infrastructure and resources to conduct quality OBTL programmes. The institution adopts digital innovations to enrich the learning experiences and enhance learning outcomes of students.

Sub-Components	Statements
3.1 Digital infrastructure and resources for governance and management	<ul style="list-style-type: none"> ● The institution has a centralized unit to manage and maintain the digital infrastructure and resources for OBTL. ● The institution has clear guidelines and procedures for the management and maintenance of the digital infrastructure and resources for OBTL. ● The institution has established and implemented an e-governance platform. ● The institution has set up a virtual library that provides access to digital books, journals, magazines, documents, videos, and pictures. ● The institution undertakes regular digital infrastructure audits and systematically upgrades them.
3.2 Digital infrastructure and resources for OBTL	<ul style="list-style-type: none"> ● The Institution has an online LMS that supports the delivery of OBTL. ● The Institution has digital infrastructure and resources to support the development of online curriculums. ● The Institution has digital infrastructure and resources to support hands-on and laboratory-based learning activities. ● The Institution has digital infrastructure and resources to provide accessibility for all teachers and students to engage in OBTL. ● The Institution has online environments, including the online LMS, that facilitate interactions between support staff, academic staff and students.

Component 4: Online and Blended Programmes/Courses Development and Implementation

OBTL Programmes/Courses are developed and delivered to meet the needs of different students to access quality education. The online course resources precisely present the intended learning outcomes, teaching-learning activities, assessments and student support. Policies and mechanisms are in place to ensure that assessment tasks for students studying online are well communicated, effectively moderated, and allow students to demonstrate the programme learning outcomes.

Sub-Components	Statements
4.1 OBTL Programmes/ Courses planning	<ul style="list-style-type: none"> ● The institution has a set of guidelines for online and blended course/ programme development. ● The online and blended Programmes/Courses design reflects pedagogical approaches to curriculum design that is not just driven by content or ICT. ● The online and blended Programmes/Courses learning outcomes are aligned to institution-level learning outcomes, professional accreditation and institutional qualification requirements. ● There is clear assessment information (including learning outcomes, assessment criteria, assessment procedure and deadlines, etc.) provided in all online and blended courses/programmes. ● The online learning activities support and are supported by face-to-face learning activities. ● There are opportunities for internship and work-based learning in the online and blended programmes/courses. ● The credit transfer system of online and blended courses/ programmes is aligned with the national and institutional systems. ● Previous learning experience and degree verification of learning outcomes with other institutions through OBTL offer students with flexibility. ● There are guidelines for online assessments, including academic integrity, moderation and progression. ● There are clear guidelines about the nature of online assessments and the grading rubrics. ● Arrangements for locally administered online assessments are secure and monitored.

<p>4.2 Online and blended course/ programme implementation</p>	<ul style="list-style-type: none"> ● For each online and blended programmes/courses, there are publicly accessible descriptions that clearly indicated: 1) the admission or study criteria, 2) learning outcomes, 3) teaching and learning strategies, 4) duration or expected time, 5) assessments and related guideline/rubrics, and 6) credits and certification. ● The online and blended programmes/courses are embedded with adequate learning resources for students. ● The online and blended programmes/courses provide students with interactions between teaching staff and students, or between students, with a range of ICTs. ● The online and blended programmes/courses provide students with prompt and adequate feedback (in any form), from teaching staff and/or peers. ● The online and face-to-face teaching and learning activities complement each other in the course/programme. ● The online and blended programmes/courses provide students flexibility to join, pause or drop out during the implementation.
<p>4.3 Online teaching and learning review and evaluation</p>	<ul style="list-style-type: none"> ● There is a balance of formative and summative assessment, and the assessment methods are adequate to demonstrate the achievement of the intended learning outcomes and required standards. ● Online and blended programmes/courses review draws upon different types of data, such as student evaluation of teaching in the programmes/courses, graduate employment survey, the interview/ reflection of staff and students, courses/programmes observation and/or documentations, etc. ● Employer or industry representatives are consulted so that the online and blended program/course design aligns with workforce needs and expectations.

Component 5: Student Support

Students in online and blended courses and programmes have to be supported to monitor and manage their own learning. The student support may include academic advising, study skills development, senior student mentoring, professional counselling, and peer support groups or buddies, and technical and administrative help desks and workshops that facilitate students' holistic learning progression.

Sub-Components	Statements
5.1 Learning support	<ul style="list-style-type: none"> ● The institution has learning support built into the design of online and blended programmes/courses. ● Teaching staff are expected to provide learning support for their students to ensure learning engagement and the achievement of the learning outcomes in the programmes/courses. ● There are a variety of support available to all students, such as library e-resources, student counselling, peer support, academic advising, support for students with special needs, disabilities and ethnic minority groups. ● There are ongoing workshops or sessions for students to keep up-to-date with ICT.
5.2 Administrative and technical support	<ul style="list-style-type: none"> ● The institution ensures that the online learning management and academic management platforms are available, viable and reliable to provide students with administrative, academic and technical support anytime and anywhere. ● Students have access to ICT services and learning facilities that are necessary for their online and blended programmes/courses. ● Students are provided with training and support for the utilization of ICT, facilities, platforms and software required in online and blended programmes/courses. ● Administrative and technical support are accessible in different modes such as website enquiry, email, hotline, face to face consultation, etc. ● Administrative and technical support are provided in a safe environment to both staff and students. ● Administrative and technical support are periodically evaluated and improved based on feedback from teaching staff and students.

Component 6: Staff Professional Development and Support

The role of teaching staff in developing and implementing quality online and blended teaching and learning in their institutions is pivotal. However, they need the support from institutional leaders and education support staff (technical staff, administrative staff, instructional designers, and multimedia developers). The teaching staff, leaders and support staff form the higher education workforce that work together to ensure inclusive and equitable quality online and blended teaching and learning. To play their expected roles, they have to be equipped with professional development opportunities and professional support. In this component, the higher education workforce is referred to as staff.

Sub-Components	Statements
6.1 Access	<ul style="list-style-type: none"> ● Professional development (technical and pedagogical) of online and blended teaching and learning is accessible to all staff. ● Professional learning and support resources (e.g. online training resources, online lesson planning templates) are available to all staff.
6.2 Incentive	<ul style="list-style-type: none"> ● Staff are given time and recognition for excellence in teaching and learning in online and blended settings. ● Professional development is the responsibility of the individual, faculty and/ or department. ● Professional development is part of staff appraisal. ● There are certification and regulation for staff professional development
6.3 Guidelines	<ul style="list-style-type: none"> ● There is a clear guideline/framework on the competencies of staff (leaders, teachers and support staff) needed for online and blended teaching and learning. ● Both technical and teaching staff have undergone online learning teaching and learning professional development to better support the pedagogical and technical aspects of online teaching and learning. ● Teaching staff are supported (institutional level, faculty level and/ or department level) to develop and implement online and blended learning in their programmes/courses.

Component 7: Collaborations and Partnerships

There are collaborations and partnerships within and outside the institution to support the development, implementation and the sustainability of online and blended teaching and learning.

Sub-Components	Statements
7.1 Internal collaborations and partnerships	<ul style="list-style-type: none">• There are partnerships and collaborations (e.g. within and across faculties, and between different centres and units) in place within the institution to support online and blended learning.
7.2 External collaborations and partnerships	<ul style="list-style-type: none">• There are partnerships and collaborations with other organizations (e.g. Private industry partners, public sector partners and government agencies, institution partners, international and regional organizations, donors and foundations) to support online and blended learning.

Component 8: Monitoring and Evaluation

The institution has existing mechanism to monitor the process of OBTL implementation and to evaluate the impact of OBTL implementation. A coherent feedback loop is in place to integrate the monitoring and evaluation findings into existing practices to continually improve the implementation of OBTL.

Sub-Components	Statements
8.1 Monitoring and Evaluation Mechanisms	<ul style="list-style-type: none"> ● The institution has a clearly defined set of mechanisms and procedures to monitor the implementation process of online and blended teaching and learning at the institutional, faculty and departmental level. ● The institution has a set of mechanisms and procedures to evaluate the effects and outcomes of online and blended teaching and learning. ● There is a centralised committee responsible for online and blended teaching and learning that coordinates all monitoring and evaluation efforts. ● There is a mechanism (programme committee, teaching and learning committee at various levels, quality assurance committee) to regularly collect and analyse data on the impact of online and blended teaching and learning, and devise actionable improvement plans for online programme management, course/programme materials, students, lecturers, service of learning assistance, etc. ● The mechanism for monitoring and evaluating online and blended teaching and learning is integrated within the overall quality assurance framework for all modes of delivery.
8.2 Feedback Loop	<ul style="list-style-type: none"> ● The monitoring and evaluation efforts provide feedback to the institution, faculties and departments to improve on their online and blended teaching and learning policies and practices. ● The centralised committee regularly conducts benchmarking exercises to review the course content and design of the institution and peer institutions' online and blended programmes/courses. ● Programmes/courses review is overseen by a panel of stakeholders from the industry, academic partners, and professional bodies. ● The feedback from programmes/courses reviews are used to revise and enhance the programmes/courses.

Part III: Operationalising IIOE Quality Assurance 2.0

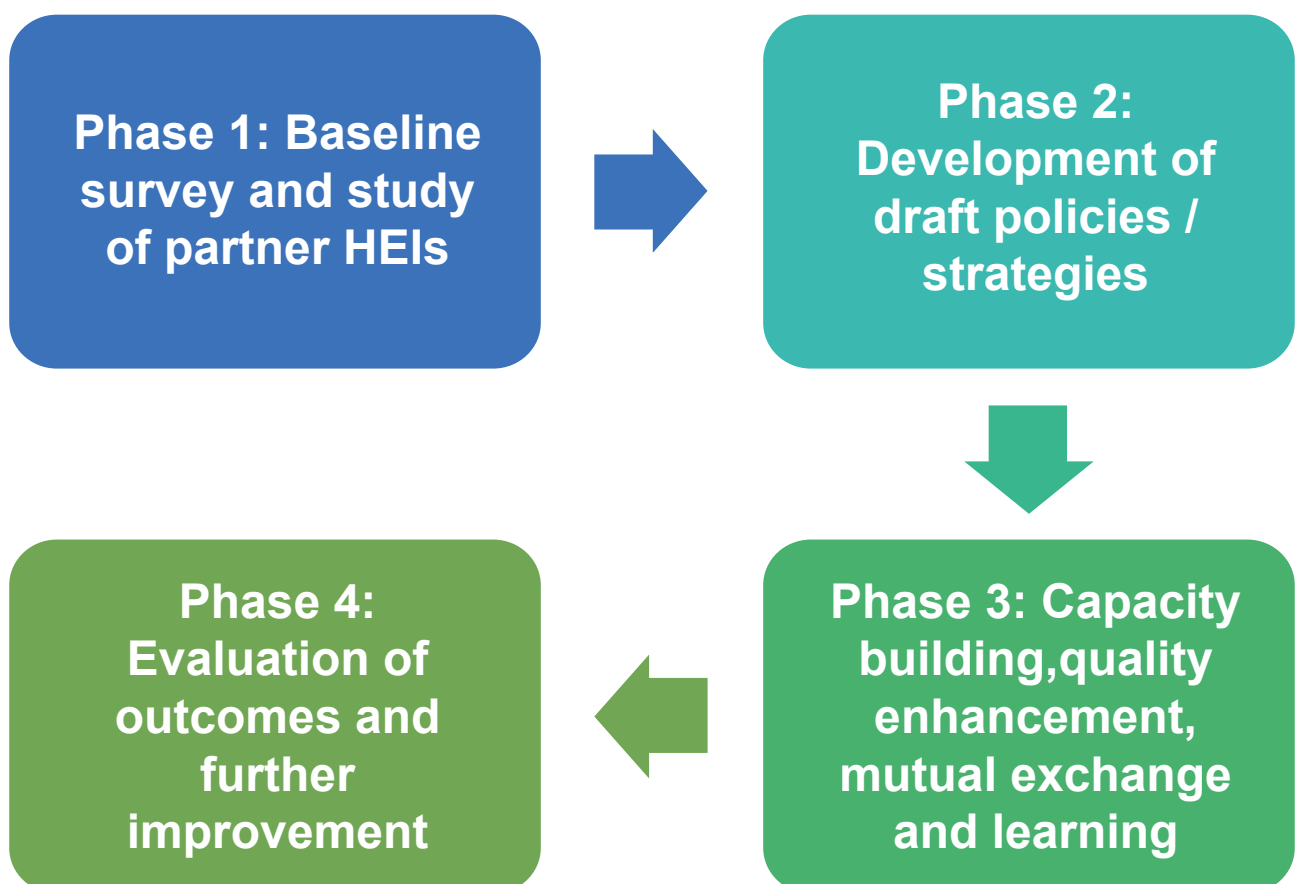
IIOE Quality Assurance 2.0 could function at both institutional level and higher education workforce level. In order to make IIOE Quality Assurance Framework 2.0 more operationalisable, a suite of toolkit was developed to support its operationalisation at partner HEIs.

1. Operationalisation at the institutional level

At institutional level, IIOE Quality Assurance 2.0 could guide partner HEIs to drive and support online and blended higher education in the following ways:

- Analyze gaps and issues in partner HEIs' existing quality assurance framework and processes systematically with respect to online and blended higher education;
- Facilitate partner HEIs to revise and refine their existing quality assurance framework and processes to improve higher education equity, quality, and efficiency that is enabled by online and blended higher education; and
- Support partner HEIs to formulate strategies and pathways for implementing online and blended higher education.

The operational method below provides a reference for partner HEIs to operationalise IIOE Quality Assurance Framework 2.0 at their own institutions.



Phase 1: Baseline survey of partner HEIs.

IIOE Partner HEIs do a baseline survey of their current situation for online and blended higher education through online IIOE Quality Assurance Self-Assessment Tool 2.0. (access to version 1.0 <https://www.iioe.org/qa/start>). This online assessment will help gain a general understanding of HEIs' context and facilitate the identification of strengths and weaknesses.

A more comprehensive and specific assessment could also be conducted afterwards through Report Template. Annex 1: IIOE QA Institutional Assessment Report Template

Phase 2: Development of draft strategies or action plans.

Based on the self-assessment results, partner HEIs will develop draft action plans or strategies in areas of need.

Partner HEIs could undertake this exercise through a designated department within their institutions, usually QA related department. Partner HEIs need to ensure that the ownership of this work is connected to senior leadership and decision-making structures to enhance the status of the exercise and how HEIs ultimately implement any proposed actions arising from the self-assessment.

Phase 3: Capacity building and self-enhancement under the support of IIOE.

Improvement and enhancement in online and blended education will be the objective of IIOE and its partner HEIs. IIOE will support its partner HEIs throughout the process with its multiple programmes, online resources and its partnership network.

Phase 4: Evaluation of the outcomes and further improvement.

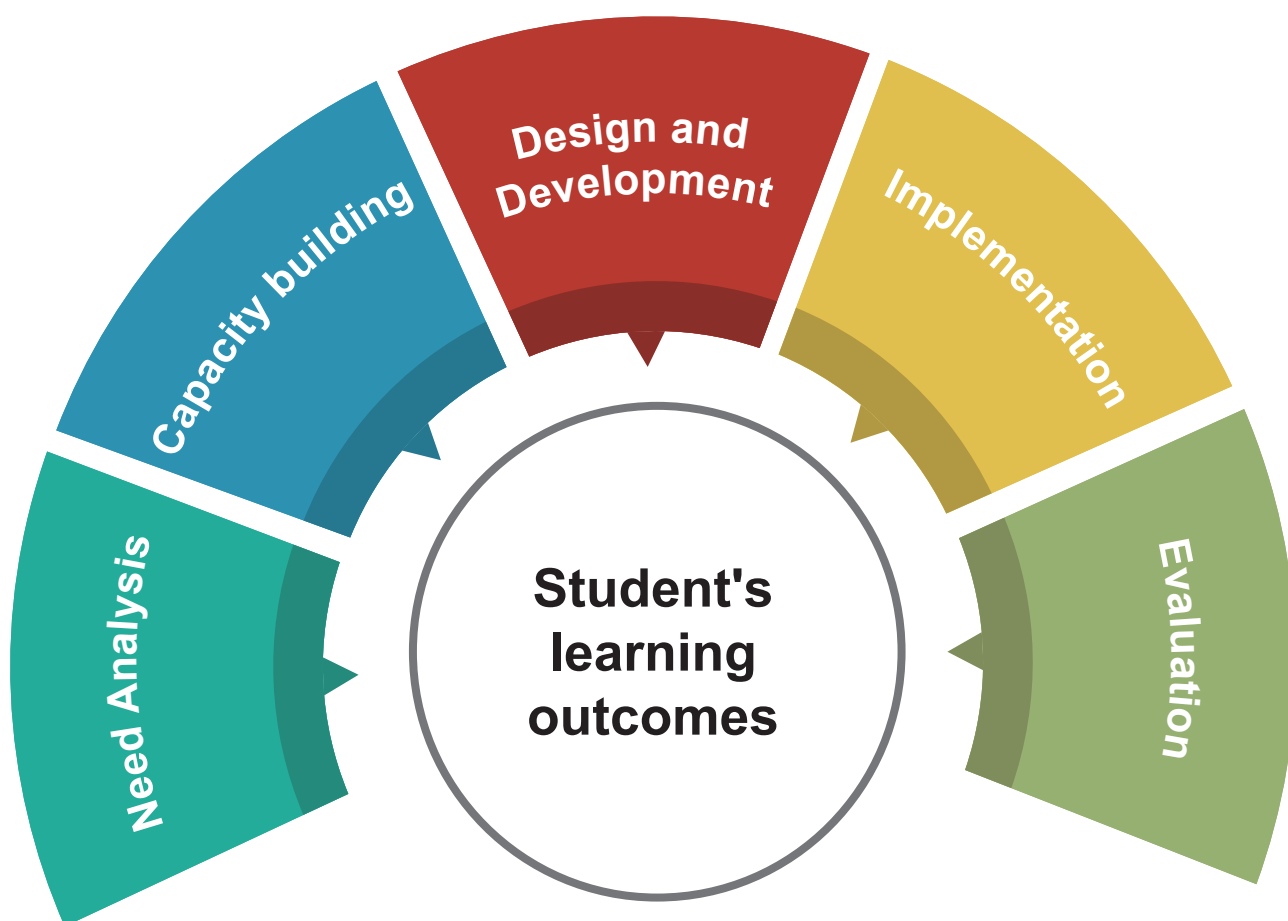
Phase 4 is primarily focused on the evaluation of the implementation, recognition of areas of achievement and adjustment of actions for further improvement. Evaluation themes should follow the policy and strategies developed, such as evaluation of the pedagogical changes teachers have made, measuring the learning outcomes of students using the blended courses that have been developed.

2. Operationalisation at the Programmes/ Courses level

At Programmes/courses level, IIOE QA 2.0 framework offers higher education workforce a clear understanding, flow and key guidelines about the planning, implementation, review and evaluation of online/blended programmes/courses. In addition, the tools suggested in the framework offer resources for the higher education workforce then empower them to develop and implement their blended and online programmes/courses in their local context.

The programme refers to education programmes. A programme is a structured series of courses that aims at enabling students to achieve certain learning outcomes. The course refers to the teaching, learning and assessment in the course, which could be a single course or course within a programme.

For operationalisation of IIOE QA 2.0 at programmes/courses level, the flowchart below systematically elaborate key steps of instructional development that serve students' attainment of learning outcomes of programmes/courses.



Phase 1: Need analysis of faculties and departments of HEIs

The local need for partner HEIs should be analyzed and understood before the operationalisation of IIOE QA 2.0 framework, due to HEIs in different contexts may have different advantages and disadvantages on one hand, and some HEIs may have already had national or internal quality assurance guidelines in place. Based on the baseline survey conducted at the institutional level (see previous section), further specific need analysis at the faculty and/or departmental level is necessary to understand their existing online and blended programmes/courses (if any), relevant resources and capacity, and support. Besides, a working group/committee (consisting of heads of faculty/departments, academic/teaching staff and other related staff) could be set up to coordinate the process of operationalisation.

Phase 2: Capacity building of academic/teaching staff

Based on the specific need analysis, capacity building of IIOE QA 2.0 and instructional design of online/blended programmes/courses could be organized by the working group/committee with the support of IIOE and external experts. On the one hand, the capacity building could enable academic/teaching staff to better understand the guidelines of planning, development and implementation of programmes/courses in IIOE QA 2.0. On the other hand, the capacity building could also equip academic/teaching staff with necessary skills on instructional design, pedagogies of online/blended teaching and learning, and good practices from other HEIs. Capacity-building activities can be online or on-site workshops, online courses, and sharing sessions, etc. Besides, the online resources provided in the IIOE QA 2.0 could be utilized for capacity-building resources or self-paced learning materials.

Phase 3: Design and development of online/blended programmes/courses

Faculty and/or departments, with consultation of the working group in this phase, could draft an action plan for programmes/courses needed while referring to their needs and IIOE QA 2.0. The action plan should clearly identify key elements for the programmes/courses, such as programmes/courses coordinator, key resources, mode of delivery, course outline, internship, certification, etc. Based on the action plan, faculty/departments further either adapt existing programmes/courses to be online or blended mode or develop new online/blended programmes/courses. Besides, IIOE provides HEIs tools such as Self-Checklist for course development for reference. Once the development is finished, it is necessary for the programme/cours to go through discussion and obtain approval from the working group/committee before being implemented.

Annex 2: Self-checklist for course development

Phase 4: Implementation of online/blended programmes/courses

Implementation of online/blended programmes/courses can start with a certain number of class groups for trial before covering all class groups within the programmes/courses. Programmes/courses coordinator can coordinate class meeting(s) among academic/teaching staff, technical supporting staff, and administrative staff to provide an overview of the structure of the programmes/courses. The overview should include course outlines, learning resources, interaction and feedback provision, assessments, learning support, etc. Besides, the evaluation instrument and approach of the programmes/courses should also be made clear to the above staff. After trial implementation, the full-fledged implementation can be considered after getting approval from the working group/committee based on the evaluation result of the trial and revision to the programmes/courses.

Phase 5: Evaluation of online/blended programmes/courses

Evaluation/review is pivotal for ensuring and improving the quality of existing or newly developed online/blended programmes/courses. Evaluation instruments for such evaluation could be developed by the working group/committee with reference to existing instruments and need analysis and approved by the institutional ethical review committee. Programme coordinator, academic/teaching staff, technical supporting staff and administrative staff should be well informed about the evaluation instruments and approaches, as well as according to timeline for evaluation. Evaluation can be conducted by staff appointed by the working group/committee to collect necessary data. Data sources suggested and tools such as a template of course evaluation in IIOE QA 2.0 offer reference for such evaluation. IIOE and other external experts can also join and provide advice if necessary. The evaluation result should be reported to the working group/committee and well informed by faculties and departments for the further analysis and improvement the online/blended programmes/courses, as well as sustainable implementation.

In summary, the five phases of operationalization of IIOE QA 2.0 at the programmes/courses level are closely related to each other and contribute to the final target that is students' attainment of learning outcomes in the online and blended programmes/courses. The phases, accompanied by suggested resources and tools, formulate a loop for the development and implementation of IIOE QA 2.0 framework and enhance the capacity of faculties and departments of HEIs to adapt and develop their own online and blended programmes/courses.

3. Toolkit Supporting Operationalisation of IIOE QA 2.0

Toolkit supporting operationalisation of IIOE Quality Assurance Framework 2.0 includes examples of Data Sources that correspond to each component of the IIOE Quality Assurance Framework 2.0 and an overall Report Template that will guide HEIs to make a comprehensive assessment of their own situation or readiness in online and blended higher education. Examples of supplementary Resources for each sub-component are also included as reference or guiding practices for the implementation of online and blended education.

Data Sources provide technical guidance to help HEIs identify related evidence to assess their existing practices in line with the quality assurance framework. The data sources of IIOE Quality Assurance Guidelines are provided based on components.

Resources provide supplementary examples of best practices that will help partner HEIs to make improvements in their future actions. They could be promising practices from other HEIs, research outcomes, or good case studies. Resources are provided based on sub-components.

Report Template provides a template for partner HEIs to make comprehensive but specific self-assessment of their actual situation in online and blended learning. The report template will guide partner HEI to fill in the following information: Summary Comments, Rationale, Evidence, Examples or References to Resources, and Future Actions. The template is specified for each component of the IIOE Guidelines, but the self-assessment could be either conducted in its entirety or in selected components, depending on the institution's needs. The properly filled self-assessment report could be used for institutional planning and priority setting, and it is also an important document supporting other internal or external stakeholders to easily understand or validate the assessment.

IIOE Quality Assurance 2.0 enables and encourages eclectic use to complement partner HEI's existing framework for quality assurance or develop draft strategies and action plans. It also allows explicit provision for customisation relevant to the institutional context. Below are Data Sources and Resources supporting the operationalisation of IIOE QA 2.0.

Component 1: Institutional Mission and Policies

Data Sources for self-evaluation

To assess your institutions' current mission and policies, please refer to the relevant official policy/plan/handbook/annual report/feedback information below:

- Organization chart
- Institutional strategic plan
- Policy manuals
- Documented internal documentation of powers
- Institution website
- Human resource plans
- Documented performance review and systems
- Management Information System
- Recruitment record
- Staff and leadership nomination and management record
- Retention and promotion criteria
- Staff training manuals
- Financial allocation record to the institution
- Institution plan for technology use and maintenance for teaching and learning

Resources based on sub-components

Sub-Components	Resources
1.1 Mission	<p>1. Blended learning: A dangerous idea? by Moskal, et al. illustrates the iterative loop of quality assurance for implementing blended learning, with effective goals articulation being the first step toward operationalising blended learning in higher education institutions. Please read page 16 for key ideas, concepts, and a series of questions to consider when designing institutional goals and objectives.</p> <p>2. AN ADMINISTRATOR'S GUIDE TO THE WHYS AND HOWS OF BLENDED LEARNING by Niemiec and Otte identifies the benefits of blended learning and examines institutional challenges in implementing blended learning from multiple perspectives. Page 22 to 26 offers examples of institutional missions and goals, further illustrating the use and revision of goals during the process of strategy formulation to overcome barriers in operationalising blended learning.</p> <p>3. This page on the official website of African Virtual University offers an example of clearly defined institutional vision, mission and operationalised objectives for "Open, Distance and e-Learning" (ODEL).</p>

<p>1.2 Planning</p>	<ol style="list-style-type: none"> 1. A Strategic Planning Model for Distance Education by Piesel introduces the Strategic Planning Process Model, which covers ten phases necessary for developing a strategic plan for OBTL from an institutional perspective. 2. Page 10 to 23 of the Strategic Management Plan 2015-2020 by The Open University of Sri Lanka entails the strategies the institution adapts toward achieving its goals and objectives. The document also presents a SWOT analysis of the institution and the process of planning, corresponding to the key phases in the Strategic Planning Process Model mentioned above. 3. Page 15 to 17 of The Open University Equality Scheme 2018 - 2022 reviews the institution's arrangements for managing and embedding equality, from leadership, staff learning and development to monitoring and reporting. A link to the institution's disability support service is included at the bottom of page 15.
<p>1.3 Policies</p>	<ol style="list-style-type: none"> 1. The APEC Quality Assurance of Online Learning Toolkit by the Asia Pacific Economic Cooperation covers 9 key domains for the planning and implementation of quality assurance to create a "quality culture" for OBTL. The toolkit also offers case studies on necessary quality assurance benchmarks, policies, and case studies from higher education institutions. 2. Page 8 of The Open University Equality Scheme 2018 - 2022 lists the Equality and Diversity Principles, which underscores the institution's recognition of diversity and its dedication to preventing discriminatory actions and exclusions based on individual circumstances and characteristics.

Component 2: Institutional Structure and Culture

Data Sources

To assess your institutions' current institutional structure and culture, please refer to the relevant official policy/plan/handbook/annual report/feedback information below:

- Organisation chart
- Institutional strategic plan
- Policy manuals
- Documented internal documentation of powers
- Institution website
- Human resource plans
- Documented performance review and systems
- Management Information System
- Recruitment record
- Staff and leadership nomination and management record
- Retention and promotion criteria
- Staff training manuals
- Financial allocation record to the institution
- Institution plan for technology use and maintenance for teaching and learning

Sub-components based Resources

Sub-Components	New Resources
2.1 Structure	<p>1. Organizational Structure This web page takes The Open University (100% online university) in the UK as the subject to introduce the idea of "Council", which is an equivalent of such a 'centralised committee'. Several essential aspects of the Council to be specified include its function (in The Open University's case: strategic planning, monitoring effectiveness and performance, finance, audit, estate management and human resource management), personnel composition, constitution or guiding document, as well as meeting agenda.</p> <p>2. UNICAF University in Zambia offers both online and in-person degrees and has a Teaching and Learning Committee (TLC), an equivalent of the "centralised committee." TLC is said to be responsible for encompassing "all of the Unicaf University's modes and locations of delivery and study," and leads four other committees plus two administrations.</p>

	<p>3. Faculty of Maths and Physical Sciences in University of Leeds has a Blended Learning Committee that serves as a "centralised committee" to "facilitate the implementation of technologies and systems that can enhance the delivery and support of blended learning within the Faculty" (Terms of Reference, component 1). The Blended Learning Committee develops a Digital, Blended, and Technology-Enhanced Learning Strategy for all faculty members and conducting activities in the following three areas: 1) fostering and supporting communities of practice around blended learning at School (if necessary) and Faculty levels; 2) contributing to the Faculty's vision for education and research via the Strategy; 3) scanning available blended learning resources and methodologies (Terms of Reference, component 4, A B C).</p> <p>4. University of Massachussets at Amherst in the U.S. has an Information Technology Steering Committee (ITSC) serving as the "centralised committee" to coordinate institution-wide IT services and support for all departments and centres (see "Service" and "Support" section for specific provision). ITSC does not offer all services per se, but rather introduce and optimize available IT resources across campus. ITSC also develops a 5-year strategic plan for the UMass information system and collaborates with all five campuses to envision an IT-driven campus life. See pages 6-7 of the strategic plan for its guiding principles.</p>
2.2 Culture	<p>1. Organisational culture and technology-enhanced innovation in higher education This research locates in mainland China. The author defines several dimensions of "organisational culture", namely goal orientation, innovation orientation of organisations, leadership, participatory decision making, shared vision and formal relationships among members. Statistical calculations indicate that these dimensions will influence "teachers' perceived need, perceived usefulness, responsiveness and implementation of technology-enhanced innovation" (Conclusion section).</p> <p>2. The impact of Transformational and Authentic leadership on innovation in higher education: The contingent role of knowledge sharing This article is based in Jordan and uses leadership style as a proxy for organisational culture. Results indicate that Transformational Leadership (which develops followers into leaders per se) positively impacts the innovativeness of HEIs in Jordan, and knowledge-sharing norms significantly moderate the impact of Transformational Leadership. In contrast, Authentic Leadership style and culture is not conducive to higher innovativeness of HEIs statistically, probably due to nation-wide cultural factors ("non-western culture in Jordan") (Abstract and Conclusion section).</p> <p>3. E-Learning Readiness and the Effects of Organizational Culture This research distributed questionnaires to different organisations in Iran (including but not limited to HEIs) to find out the relationship between organisational culture and e-learning readiness within the organisation. Results found "a significant positive impact of clan and adhocracy cultures on e-learning readiness" and that "market culture has a negative impact on e-learning readiness, while findings cannot justify a relationship between hierarchy culture and e-learning readiness" (Abstract and Conclusion section)</p>

2.3 Roles and responsibilities

1. [UNICAF University in Zambia](#) exemplifies the roles of each committee and notes potentially overlapping memberships in its "Federal Committee Structure" Page. Each committee can either establish sub-committees or simply stand on its own when operating affairs.
2. [Leadership's Role in Support of Online Academic Programs: Implementing an Administrative Support Matrix](#) On page 11 (Table 1), the author creates a matrix for necessary roles and responsibilities for administrative leadership to distribute. These responsibilities consist of three consecutive stages: Foundation, Development, and Maintenance.
3. [ONLINE LEARNING RESPONSIBILITIES-FACULTY RESPONSIBILITIES FSU](#) in the U.S. categorized responsibilities for two stakeholders: students and faculties. In the "Faculty Responsibilities" section, there are several bullet points for institution faculties to consider when conducting online teaching in the OBTL parallel. A gap in these literature is that it does not specify responsibilities for different committees WITHIN the faculty. However, these written points are applicable in real-world practice and thus worth reading.

Component 3: Digital Infrastructure and Resources

Data Sources

To assess your institutions' resources in digital infrastructure, please refer to the official documents below:

- Budget data account for investment in appropriate technical infrastructure;
- Information on subscriptions or licences to online educational resources and software tools are purchased
- Framework to manage infrastructure
- Guidelines for investment

Sub-components based Resources

Sub-Components	Resources
<p>3.1 Digital infrastructure and resources for governance and management</p>	<p>1. E-Governance Model for Universities. Propose e-governance models for higher education institutions based on comparative researches, with the aim to update modern techniques for higher education institutions in Pakistan (developing country). The paper outlines models for technology-based governance in institution's administration by using several case studies (see Section 3). Meanwhile, the research design section (Section 4.3 -4.6) has proposed a new e-governance model based on previous models to be operated in institutions in Pakistan.</p> <p>2. A National Digital Infrastructure for Higher Education. Proposes an enterprise architecture model that manages the complexities of IT systems, using a case study at the University of Oslo (Norway). Specifically in section 5, action plans and enterprise architecture are outlined, including the primary tasks of UNIT, how EA(Enterprise Architecture) model takes into local academic and professional needs when implementing higher education systems.</p> <p>3. Institutional Support for e-learning Implementation in Higher Education Practice: A Case Report of University of Rijeka, Croatia. The paper focuses on several phases of development and implementation of e-learning platforms at the University of Rijeka. E-learning scheme, with the diagram showing the interactions between institution centres, institution's responsibilities and connections when building e-learning net. p.5 (482)</p> <p>4. Quality Assurance of E-learning. Chapter 2: Design and development of methodology in applying to e-learning institutions. Evaluation units design outlined (see page 15 (14)), as well as e-learning institutions evaluation process. Chapter 5: European benchmarking exercises - the Swedish context and Lund University, related to e-learning and blended mode strategies; integrate e-learning criteria in the national evaluation programmes.</p>

	<p>5. University of Cincinnati e-learning strategic plan. The document observes the current state of e-learning in University of Cincinnati (US) and outlined strategic maps focusing on improving: student & faculty experience; foundations of e-learning; building community; e-learning ecosystem. Strategies for each section are outlined after reviewing the institution's current state and setting up future goals.</p> <p>6. QMUL E-Learning Strategy. Outlines strategic plan at the Queen Mary University of London, attempt to address current challenges in online learning qualities, teaching efficiency with technology, diverse online learning environment, reliable technical and support infrastructure. Framework and timelines for implementation are outlined at the end of the document.</p> <p>7. Implementing e-Learning at the University of Botswana: the Practitioner's Perspective. The paper proposed the strategic management in e-learning programme focusing on graduate-level in the university of Botswana. The programme outlines structures of the online learning framework and key processes in online course development including building course model and delivery methods as well as training staff and implementing relevant policy</p>
<p>3.2 Digital infrastructure and resources for OBTL</p>	<p>1. Online Learning in Tertiary Education in the Middle East and North Africa. Part III, focusing on the development of online learning in Jordan (Jordan LMS), Egypt and UAE. Each country is analysed in sub-sections considering the country's cultural background, language, education systems. E-learning centres, digital platforms, Internet access, as well as the structure of e-learning programmes are evaluated in the target countries. Issues when developing online programmes are noted in the documents and relevant discussions and guidance are given on how to improve according to the country.</p> <p>2. University of Cape Town</p> <ul style="list-style-type: none"> ● Digital Library services. Provided different services to contribute to data management at UCT. In particular, the virtual support for teaching & learning, and research has provided online details including library and teaching and learning resources. <p>3. University of South Africa (UNISA) - an open distance e-learning institution</p> <ul style="list-style-type: none"> ● Student services & support. services include different aspects of life in the institute, including online student platforms, online studios, libraries, counselling services. ● In particular, the institution offers digital learning support according to various regions, including digital study portals and digital access centres. <p>4. King Abdulaziz University digital services. A platform for virtual classes, equipment repair, communication centre, blog and so on.</p>

Component 4: Online and Blended Programme/Course Development and Implementation

Data Sources

To assess your institutions' resources in current online and blended programme/course development and implementation, please refer to the primary data and automatic data below:

Primary data

- Evaluation by course development committees;
- Review by external experts;
- Student performance data

Automatic Data:

- Data that shows track of the use of technology for communication between teachers and students, and among students

Sub-components based Resources

Sub-Components	Resources
4.1 OBTL course/ programme planning	<p>1. Course development</p> <ul style="list-style-type: none"> • Standards and process The Quality Manual of the University of Hong Kong. part3. Curriculum Development and Approval Development and approval of new curriculum/ new disciplinary courses, changes to existing taught curriculum, programmes and disciplinary courses are described in components 3.1-3.3. • Pedagogical consideration <ol style="list-style-type: none"> (1) Five tasks for developing a blended course were described in BlendKit Course: DIY Project Tasks, from conceptualization of the blended course to quality assurance. (2) Authentic Assessment in the Online Classroom described the definition, advantages and disadvantages, developing process of Authentic Assessment, which considers the pedagogical T& L, and students' perspective. (3) Blended Learning described several key components in designing the blended course: employ thoughtful integration, choose instructional strategies and activities, use learning technologies, and gave some resources. (4) Enhancing Your Online Course for Your Unique Student Population made some points to help teachers learn more about students: 1) Audience Analysis, 2) Are my students typically adult students or college age?, 3) Do my students primarily access content from their computers or mobile devices?, 4) What sorts of questions have my students consistently asked in past terms? 5) Navigation (Have a clear starting place, Place your items in chronological order, Ensure consistency across modules, Write clear instructions) (5) Using Data to Improve Your Online Course described some aspects to use data more effectively: 1) Before You Begin, 2) Student Evaluations, 3) Activity Logs, 4) Quiz Reports, 5) Rubric Analysis (Make sure the criteria align with the objective and assessment, Make sure students have the appropriate resources available to them, Make sure you have clear criteria). <p>2. Learning activities Blended Learning: Discussions, laboratory work, field trips, group work, online activities and lectures -- these can all be part of blended learning.</p>

3. Learning outcomes/ objectives

[Aligning Outcomes, Assessments, and Instruction | Centre for Teaching Excellence](#). Tips used [Bloom's Taxonomy](#) to demonstrate how different strategies and assessments align with various levels of the cognitive domain's hierarchy.

[3 Tips for Writing Measurable Objectives](#) described how to write measurable objectives: Refer to the revised Bloom's Taxonomy for measurable verbs, Build upon existing objectives, Break down larger or higher-order objectives into smaller objectives.

4. Assessments/assignment

- How to create written assignment in blended learning: [Creating Blended Assignment Instructions](#)
- [Methods for Assessing Group Work](#) Methods to assess group work concluded two perspectives when assessing group work: product vs process, instructor vs group member.
- [How Academic Administrators Can Improve Online Learning: The Faculty Experience - Centre for Teaching](#) concludes faculty experience: Guidance and Procedures, Incentives, Curriculum Consistency, Ownership and Engagement, Professional Development.
- [How Academic Administrators Can Improve Online Learning: The Administrator Experience](#): Institutional Learning, Institutional Decision Making and Ownership, Program Planning and Management.
- [The Benefits of Rubrics in Online Classes](#) -explained why and how to use rubrics.

5. Transfer students

[The Growing Population of Transfer Students and How to Serve Them: 1\)](#) enrollment (Define pathways to completion for common transfer scenarios, Create a process for accepting nontraditional credits, Approve unofficial transcript evaluations within 72 hours), and 2) program maps (Establish program maps and unified policies for all online programs, Allow courses to serve multiple purposes, Build new programs incrementally).

Blended Learning courses cases study. <https://www.ualberta.ca/centre-for-teaching-and-learning/teaching-support/learning-environments/blended-learning-case-studies.html> - see case studies section for examples

4.2 Online and blended course/ programme

1. Here are some online teaching techniques: discussion/ group work/ lectures. [BLENDED & ONLINE COURSES](#)
2. [Technology-enabled learning: policy, pedagogy and practice.](#) Chapter 5, chapter 6 and chapter 7 presented some case studies to show how to deliver the blended learning course from faculty level, how the TEL is well implemented in the technically challenging environment, and what we can do to engage students in blended learning with the help of technology.
3. "There are nominated academic/professional moderators who understand and have the authority to intervene in, for example, cyberbullying that may constitute risks to learners and/or the provider". (component 4.2)
[Statutory QA Guidelines for Blended Learning Programmes.pdf](#)
4. [Enhancing Student Learning with Technology | Sheridan Centre | Brown University.](#) Introduced approaches and resources to design effective online environments and engage students in online courses from presentation tools to discuss strategies.
5. [Characteristics of Effective Online Assignments](#) described some characteristics of online assignments to guide the design, implementation and review of the online assessment.
6. [Blended Course Implementation Checklist](#) help teachers to check various work in implementation before, during and after the course, such as ensuring students know the course information, collecting feedback.
7. [How to Effectively Assess Online Learning. Magna Publications](#) give various forms of assignments for an online/ blended learning environment.
8. [Components of a Syllabus \(Online and On-Campus Courses\) - Centre for Teaching and Learning | Wiley E](#) concluded components in the syllabus: Instructor Information, Course Description, Course Objectives (Course Outcomes), Course Methodology, Grading Criteria, Grade Computation, Course Policies, Attendance.

9. [Using Supplemental Resources in the Online Classroom - Centre for Teaching and Learning | Wiley Educ](#) introduced when and how to use supplemental resources in online classrooms: Selecting and including supplemental resources, Using them to provide proactive and reactive support.

10. [Organizing Instructional Materials to Maximize Student Engagement • Centre for Teaching and Learning](#) described the process to organize the materials: Chunk your materials, Create opportunities for interaction, and Utilize multimedia (Principles of Multimedia Learning - Centre for Teaching and Learning | Wiley Education Services).

11. [Three Ways to Encourage Conversation in Online Discussion Forums • Centre for Teaching and Learning](#): Create spaces for students to build rapport, Make assessments engaging and relevant to students' lives, Facilitate opportunities for collaboration and support.

12. [Creating Engagement Through Discussion Forums](#) showed how to engage students in class by using interaction forums: 1) Require students to post first, 2) Use forums for project feedback, Have students submit their final projects to the forum, 3) Have students post the questions and serve as moderator for the forum, 4) Use multimedia tools, 5) Use forums for exam study, 6) Host small groups and debates, 7) Introduce role-playing exercises.

4.3 Online teaching and learning review and evaluation

1. The University of Alberta, Canada uses a [Blended Learning Student Survey](#) to evaluate various blended learning projects.

2. [how-good-practice-in-digital-delivery-and-assessment-has-affected-student-engagement-and-success.pdf](#)

Five categories in online learning experience: passive, supportive, augmented, interactive immersive. The authors reviewed and rethought the course design for an interactive experience and immersive delivery & engagement. There were some approaches and tools for evaluation: [The future of assessment: five principles, five targets for 2025](#), invigilated online exams, timed online exam without proctoring, open-book assessment.

3. The Quality Manual of the University of Hong Kong, [part 4 - Monitoring and Review of Teaching and Learning Quality](#). Guidelines/time cycles / external review/ self-evaluation documents in the curriculum review process were demonstrated in component 4.9-Curriculum reviews.

4. Text and voice feedback, online discussion, and many social media (blogs, wikis, voicethread, digital storytelling, personal learning environment) could be assessment tools for online teaching and learning. [How to Effectively Assess Online Learning. Magna Publications](#)

5. Online students' studies will be assessed by a mixture of assignments and exams in the Open University, UK. [Studies, exams and assessment](#)

6. [Technology-enabled learning: policy, pedagogy and practice.](#)

Chapter11 shows some key points in evaluating the MOOC's impact: connectivism, focus on students' experience, professional development and the context, long-term impact on multiple stakeholders. It also presented some theories, knowledge models and contextualised evaluation framework.

7. [Blended Course Peer Review Form](#) consists of 7 parts: Course Expectations, Learning Objectives, Learning Activities/Content, Learning Assessments, Technology Tools, Ethical/Legal Compliance, Implementation of Blended Course.

8. [Strategies for Conducting Student Feedback Surveys - Centre for Teaching and Learning | Wiley Educat](#) demonstrated many helpful strategies when collecting students' feedback using surveys.

9. [Leveraging Student Data to Enhance Online Assessments](#)

described how to leverage learning data from following parts: Assessment Data and Misalignment, Assessment Data and Student Behavior (Create early opportunities for success, Be clear in your goals and expectations, Offer opportunities for reflection), Assessment Data and Student Preparedness,

Component 5: Student Support

Data Sources

To assess your institutions' resources in student support, please refer to the relevant official documents, primary data and automatic data below:

Handbook, Faculty Prospectus, programmes/courses information packages, brochures, website. Course development. Corporate plan, Institution's rules and regulations, Recruitment and Promotion criteria for staff, cadre book, staff training and development plan, student handbook, Manual of examination procedures.

- Policies (student at risk; course)
- Guidelines/information
- Communication between the institution and students
- Data of teaching and learning
- Data (engagement/performance for retention/ LO)
- Student feedback on support mechanisms
- Exit survey

Primary data

- Interactive approaches (accessibility to contacts information/platform for academic and socially aspects respectively)
- Interactive activity (course design)
- Comparative analysis of it with F2F students
- Feedback from GS and employers
- Stakeholders analysis feedback forms, interaction with staff and students
- Teacher and student data: retention rates in relation to programmes and courses
- Stakeholders analysis feedback forms, interaction with staff and students

Automatic data

- Learning analytics: Data of log & search
- Student profiles

Sub-components based Resources

Sub-Components	Resources
5.1 Academic support	<p>1. UK Quality Code for Higher Education, Advice and Guidance Course Design and Development (UKSCQA) UK Quality Code for Higher Education, Advice and Guidance Course Design and Development.pdf This document provides guiding principles for course design and development, including practical advice on how to provide well-designed courses and a high-quality academic experience for all students.</p> <p>2. Policy on Blended Learning of University of the West Indies, Cave Hill Campus (Barbados) (especially page 14 and 15) describes clear policies for faculty support and recognition in OBTL, as well as for student support and preparation in blended learning.</p> <p>3. University of Washington (USA) has demonstrated different student-centred approaches for teaching staff to promote student engagement in face-to-face teaching or OBTL. Especially, the part of Teaching with Technology introduces useful tools and good examples in physical and virtual classrooms.</p> <p>4. Academic Support 2018/2019 of University of the Arts London (UK) This document demonstrates a variety of support offered by the college and university, including extra teaching in different domains, Academic Support Tutor, workshops, one to one or group sessions, interactive e-books, etc.</p> <p>5. The University of Edinburgh (UK) lists the possible adjustment in e-learning for disabled students, aiming to make e-learning more accessible and inclusive.</p>

5.2 Administrative support

1. [The Hong Kong Polytechnic University](#) lists different IT services, learning facilities and network infrastructure services accessible to students, including Learning Management System (LMS), Student Computer Centre, Technology Enhanced Active Learning as well as IT Helpdesk for assistance.
2. [University of Southern Queensland \(Australia\)](#) offers student ITC training with free, self-paced, online lessons on a variety of software programs required in online learning.
3. [Infrastructure and Administrative Support for Online Programs](#) by Meyer, J. D., & Barefield, A. C. (2010)
This paper illustrates a survey for teaching staff on different components of administrative support to identify the important ones before and throughout an online teaching programme. Thus, it offers an outline for the administration to follow in the implementation process.
4. [University of Wollongong \(Australia\)](#) demonstrates different options for IT support, including website, email, phone, self-help forum and in-person support.
5. [Administrative Assessment: A Guide to Planning, Implementing, and Reporting](#) by Marymount University (USA) in February 2018
This guidebook contains general information on outcomes assessment and provides instructions for completing administrative assessment, which is intended to identify strengths and weaknesses in the functioning of units and the services they provide and use that information to improve effectiveness.
6. [Victoria University \(Australia\)](#) identifies different genres of concerning, threatening and inappropriate behaviour as well as the procedures of reporting. Some of these behaviours may occur throughout academic support.

Component 6: Staff Professional Development and Support

Data Sources

To assess your institutions' current resources in staff professional development and support, please refer to the relevant official documents, data of teaching and learning, and primary data below:

- PD opportunity
- Contracts
- Workforce planning documents
- Budgets account for academic and technical support staff
- Investment in online TPD
- Institution planning and human resource (HR) documents (including recruitment, retention, promotion, performance management, career development, records), individual staff profiles, details of staffing structure of administration unit, staff training and development schedules and manuals, Work norms and job descriptions of staff, roles and responsibilities of welfare unit staff,

Data of teaching and learning

- Student evaluations
- Performance appraisal data
- Student and staff feedback questionnaire
- Staff service records.

Primary data

- Interaction with staff, interview, evidence of implementation of the mechanism.

Sub-components based Resources

Sub-Components	New Resources
6.1 Access	<p>1. Technology-Enabled Learning: Policy, Pedagogy and Practice by Commonwealth of Learning (2020)-Chapter 7 presents a case study of technology-enabled learning implementation at Jaramogi Oginga Odinga University of Science and Technology (Kenya). It identifies the most engaging activities in blended learning courses and strategies or methods used to improve students' engagement.</p> <p>2. QM Emergency Remote Instruction Checklist for Higher Ed. by Quality Matters, a non-profit organization in the United States provides a tiered list of goals, priority tips, and actionable strategies for instructors to engage students in remote teaching.</p> <p>3. Centre for Teaching Innovation at Cornell University provides online teaching resources with strategies and tools for course administrators and teaching support staff to plan, prepare, and teach online courses. Related hands-on workshops and webinars are also produced to assist with online learning.</p>

	<p>4. Centre for Teaching and Learning at the University of Alberta integrates links to external resources and documents to support blended learning. Specifically, refer to the BlendKit Course- DIY Project Tasks module which offers templates for building a blended learning course.</p>
<p>6.2 Incentive</p>	<p>1. Staff members at the University of Edinburgh have been recognized for excellence in hybrid teaching recently through the Edinburgh Teaching Award. Edinburgh Teaching Award Handbook(October 2020) details the professional standards baseline and expectations for participants to engage in teaching and/or supporting learning (both face-to-face and online) as well as continuing professional development activities.</p> <p>2. The Online Teaching Excellence Award is open to faculty members at George Mason University who devote themselves to innovative online course planning and teaching. Teaching Portfolio Guidelines & Evaluation Criteria details four criteria with possible Examples to evaluate evidence of online teaching excellence in relation to the discipline, best teaching practices, and student learning & engagement.</p> <p>3. Faculty Incentives for Online Course Design, Delivery, and Professional Development.pdf by Herman, J. H.(2013) investigated the use of five types of incentives(money, time, technology rewards, intellectual property, tenure & promotion) offered to faculty members by HEIs in the United States for their teaching online or participating in faculty development programs for online instructors. It suggests improving the efficacy of or satisfaction with the incentives regarding what incentives faculty members would find motivating or valuable.</p> <p>4. The Excellent Online Instructor: Strategies for Professional Development by Rena M. Palloff, Keith Pratt(2011)-Chapter 7 & 8 offers key points on linking Faculty Development to Faculty Evaluation and best practices for developing excellent online faculty.</p>
<p>6.3 Guidelines</p>	<p>1. The European Framework for the Digital Competence of Educators provides a general reference frame to support the development of educator-specific digital competencies at all levels of education. It details 22 competencies organised in 6 areas that are required for educators in online and innovative digital teaching and learning environments. (Area 3 Teaching and Learning included)</p> <p>2. The Professional Digital Competence Framework for Teachers by The Norwegian Centre for ICT in Education consists of seven competence areas, which contain descriptions of knowledge, skills, and competence in each area. It establishes a common conceptual framework for what teachers' professional competence entails and provides a guideline to improve the systematic and continuing professional development of teachers.</p> <p>3. Teacher Learning in the digital age: Online Professional Development in STEM Education by Chris Dede, Arthur Eisenkraft, Kim Frumin, Alex Hartley (2016)-Chapter 12 explores tenets and models for online teacher professional development developed by the STEM program team at WestEd. Five cases are presented to illustrate a variety of approaches to design and implement online professional development in STEM education.</p> <p>4. Best Practices Framework for Online Faculty Professional Development: A Delphi Study by Mohr, S. & Shelton, K. (2017) identifies best practices of offering professional development for faculty teaching online. Drawing on evidence from HEIs in the United States, this research provides professional development topics that should be focused upon as well as institutional and organizational strategies to better support faculty for teaching online.</p>

Component 7: Collaboration and Partnership

Data Sources

To assess your institutions' current resources for collaboration and partnership, please refer to the primary data in course design or implementation below:

- Specialist industry partners
- Designing group work

Sub-components based Resources	
Sub-Components	New Resources
7.1 Internal collaboration and partnership	<p>1. The Quality Manual of the University of Hong Kong part2. Framework for Quality Assurance and Quality Enhancement A number of centres and units at different levels provide strong support to the implementation of T&L. (component 2.2-2.3)</p>
7.2 External collaboration and partnership	<p>1.The Quality Manual of the University of Hong Kong, part 4 - Monitoring and Review of Teaching and Learning Quality. External Examiner system's reports and the feedback loop were described in components 4.5-4.6.</p> <p>2.External partnerships including government partnership, alumni, companies were described in part8. partnerships and innovation for blended learning at Seoul National University.Blended learning for quality higher education: Selected case studies on implementation from Asia-Pacific. Bangkok: UNESCO Bangkok Office. which also discussed issues and challenges.</p>

Component 8: Monitoring and Evaluation

Data Sources

To assess your institutions' resources in monitoring and evaluation, please refer to the relevant official document and primary data below:

- Institution strategic plan
- Institution monitoring and evaluation plan
- Organisational structure
- Workforce planning document
- Courses/programmes evaluation questionnaire

Primary data

- Interaction and interview with students and staff for evidence of implementation

Sub-components based Resources

Sub-Components	Resources
8.1 Monitoring and Evaluation Mechanisms	<p>1. The Quality Manual of the University of Hong Kong, part 4 - Monitoring and Review of Teaching and Learning Quality, identifies both internal and external stakeholders responsible for regular monitoring and evaluation of teaching and learning and related procedures and instruments available to guide the process (specifically component 4.1-4.3).</p> <p>2. A Monitoring and Evaluation Framework for Blended Learning: Pakistani Ministry of Federal Education and Professional Training offers an M&E framework based on the Pakistani local context and details the steps and procedures for developing and implementing the framework.</p> <p>3. Evaluating blended learning: Bringing the elements together by Bowyer and Chambers (2017) reviews the existing evaluation framework for blended learning and proposes a new conceptual framework for evaluating blended learning.</p> <p>4. Information System for Monitoring and Managing the Quality of Education Programs by Logachev et al. (2021) describes an information system for monitoring and managing the quality of education programs at the higher education level in Russia.</p> <p>JOItmC-07-00093.pdf</p>

8.2 Feedback Loop

1. The Quality Manual of the University of Hong Kong, [part 4 - Monitoring and Review of Teaching and Learning Quality](#), details an External Examiner system in place for benchmarking against international QA standards and practices (component 4.5-4.6). The manual also provides guidelines on conducting faculty-level consultation with students and other stakeholders and integrating related feedback into curriculum review (component 4.7-4.9).
2. [Quality Assurance of Online Learning Toolkit](#) (Domain 3: Review and improvement) by the Australian Department of Education and Training and the Asia-Pacific Economic Cooperation elaborates on the focus points and challenges that HEI teachers and leaders should consider when reviewing and improving online and blended learning courses and programs. Additional case studies and resources are also included in the document.



United Nations
Educational, Scientific and
Cultural Organization
联合国教育科学及文化组织



International Centre
for Higher Education Innovation
under the auspices of UNESCO
联合国教科文组织高等教育创新中心



International Institute
of Online Education
国际网络教育学院

Annex 1



IIOE Quality Assurance Institutional Assessment Report Template (Draft)

1 Summary of IIOE QA Assessment Report

Name of Institution <i>(of assessment institution t)</i>		Country	
Time of QA Assessment		Contact Information	
Assessment scope: <i>The assessment is conducted in its entirety or in selected components</i>			
Review findings:	<i>Please summarise here and attach further details where appropriate.</i>		
Rationale: <i>Please state in a couple of sentences how and where you see this in action within your institution.</i>	<i>Please summarise here and attach further details where appropriate.</i>		
Evidence: <i>Please link to documents and/or websites, or other related data source that supports the review findings within the institution</i>			
Follow-up actions: <i>Actions that will be planned to improve weakness identified in the assessment findings</i>	<i>Please summarise here and attach further details where appropriate.</i>		

2 Details of IIOE QA Assessment based on each component

Note: Please use tables below for details of each component if necessary

Overall inputs and evaluation of component 1:		Date agreed:	
Strengths identified:	<i>Please summarise here and attach further details where appropriate.</i>		
Areas for improvement identified:	<i>Please summarise here and attach further details where appropriate.</i>		
Rationale and evidence:			
Follow-up actions/ Actions to be implemented:	<i>Please summarise here and attach further details where appropriate.</i>		
Good practice Reference			
Overall Evaluation for Component 1	<i>Please summarise here and attach further details where appropriate</i>		

Overall inputs and evaluation of component 2:		Date agreed:	
Strengths identified:	<i>Please summarise here and attach further details where appropriate.</i>		
Areas for improvement identified:	<i>Please summarise here and attach further details where appropriate.</i>		
Rationale and evidence:			
Good practice Reference			
Follow-up actions/ Actions to be implemented:	<i>Please summarise here and attach further details where appropriate</i>		
Overall Evaluation for Component 2	<i>Please summarise here and attach further details where appropriate.</i>		

Overall inputs and evaluation of component 3:		Date agreed:	
Strengths identified:	<i>Please summarise here and attach further details where appropriate.</i>		
Areas for improvement identified:	<i>Please summarise here and attach further details where appropriate.</i>		
Rationale and evidence:			
Good practice Reference			
Follow-up actions/ Actions to be implemented:	<i>Please summarise here and attach further details where appropriate</i>		
Overall Evaluation for Component 3	<i>Please summarise here and attach further details where appropriate.</i>		

Overall inputs and evaluation of component 4:		Date agreed:	
Strengths identified:	<i>Please summarise here and attach further details where appropriate.</i>		
Areas for improvement identified:	<i>Please summarise here and attach further details where appropriate.</i>		
Rationale and evidence:			
Good practice Reference			
Follow-up actions/ Actions to be implemented:	<i>Please summarise here and attach further details where appropriate</i>		
Overall Evaluation for Component 4	<i>Please summarise here and attach further details where appropriate.</i>		

Overall inputs and evaluation of component 5:		Date agreed:	
Strengths identified:	<i>Please summarise here and attach further details where appropriate.</i>		
Areas for improvement identified:	<i>Please summarise here and attach further details where appropriate.</i>		
Rationale and evidence:			
Good practice Reference			
Follow-up actions/ Actions to be implemented:	<i>Please summarise here and attach further details where appropriate</i>		
Overall Evaluation for Component 5	<i>Please summarise here and attach further details where appropriate.</i>		

Overall inputs and evaluation of component 6:		Date agreed:	
Strengths identified:	<i>Please summarise here and attach further details where appropriate.</i>		
Areas for improvement identified:	<i>Please summarise here and attach further details where appropriate.</i>		
Rationale and evidence:			
Good practice Reference			
Follow-up actions/ Actions to be implemented:	<i>Please summarise here and attach further details where appropriate</i>		
Overall Evaluation for Component 6	<i>Please summarise here and attach further details where appropriate.</i>		

Overall inputs and evaluation of component 7:		Date agreed:	
Strengths identified:	<i>Please summarise here and attach further details where appropriate.</i>		
Areas for improvement identified:	<i>Please summarise here and attach further details where appropriate.</i>		
Rationale and evidence:			
Good practice Reference			
Follow-up actions/ Actions to be implemented:	<i>Please summarise here and attach further details where appropriate</i>		
Overall Evaluation for Component 7	<i>Please summarise here and attach further details where appropriate.</i>		

Annex 2

Self-Checklist for course development (by course developers) **

For facilitating course development, a self-checklist is provided for course developer to understand and self-check the key information needed in course development and course outline

Item	Tick
1. Template	
1.1 IIOE course outline template is used.	<input type="checkbox"/>
2. Course Introduction	
2.1 Pre-requisites and learner background for the course are stated.	<input type="checkbox"/>
2.2 target certification is stated.	<input type="checkbox"/>
2.3 Expected time commitment for learners is stated.	<input type="checkbox"/>
2.4 Developers' introduction or bio available for the course.	<input type="checkbox"/>
3. Course structure	
3.1 Course description is provided	<input type="checkbox"/>
3.2 Course objectives are stated.	<input type="checkbox"/>
3.3 Grading criteria and certificate requirements are stated	<input type="checkbox"/>
4. Instructional activities and assessment	
4.1 The course includes interrelated resources and activities.	<input type="checkbox"/>
4.2 The length of video segments is appropriate (e.g. average between 3 to 10 minutes).	<input type="checkbox"/>
4.3 The course provides online reading materials/reading list and notes.	<input type="checkbox"/>
4.4 The course provides downloadable copies/accessible links of presentation materials used in the videos	<input type="checkbox"/>
4.5 The assessment tasks are aligned to the course objectives.	<input type="checkbox"/>
4.6 Assessment rubrics are developed and provided for peer and self- assessment.	<input type="checkbox"/>
4.7 The course includes gradable assignments, e.g. exercise/quizzes.	<input type="checkbox"/>
5. Learner engagement	
5.1 Peer-collaboration is considered in learning activities and/or assessments.	<input type="checkbox"/>
5.2 The requirements for student interaction and progression through the course are clearly articulated.	<input type="checkbox"/>

**adapted from *edX MOOC Development Checklist and Guidelines for Quality Assurance and Accreditation of MOOCs (2016)* from Commonwealth of Learning.

Annex 3

International Institution of Online Education (IIOE)

Template for Review of Online Course

(to be completed by course working group/course reviewers)

To: Faculty/department Quality Assurance Committee

From: (name of course reviewer)

Certification Title: TVET/Teacher Professional Development/...

Course Title : (to match with the according course outline)

Course Developer : (to match with the according course outline)

1. Report on the course reviewed

(a) The course has been reviewed taking into consideration the following:
(Please tick the item below as appropriate)

- Updating the course content
- Regarding the checklist of course development
- Regarding the following major aspects where appropriate:
(Please tick the items below as appropriate)
 - Industry demands
 - Learner needs analysis
 - Linkage to the certification
 - Others, please specify: _____