<u>Final Version of Benchmarking Framework for Online, Open, Smart, and Technology-Enhanced Higher Education</u>

1. **Teaching and learning**

Indicator	What evidence would you seek to demonstrate high level of achievement for each indicator	Data source(s)
Learner Engagement	1. High score of students' opinions about interaction with peers, tutor and content 2. Statistics about learners participation in various learning activities threshold to be identified by the institution 3. Documentation of mechanisms introduced by the institution to promote engagement such as experiential learning (practice placements; collaborative research projects), student-led activities, volunteering programs	1. Students' opinions/satisfaction surveys 2. Use LMS reports to calculate Learning analytics (tracking online students' behavior) 3. Study and Course Guides 4. Course files
Approach to teaching and learning (Innovations in pedagogies and delivery modes to suit target group needs and expectations, learning styles, etc.)	1. High Learners' satisfaction with teaching and learning innovations 2. Local, regional, or international awards on Innovations in online pedagogies and delivery modes 3. Availability and implementation of Institutional strategies and policies to support innovations in pedagogies and delivery 4. Faculty publications highlighting innovations in pedagogies and delivery modes 5. Evidence of introducing flexibility in course design & development to	1. Institutional activity reports 2. Institutional documents such as online learning strategy, policy and procedures 3. Available reports and publication on the innovations and their impact 4. Data provided by the higher

	address the needs of different target groups 6. Documented institutional projects on innovative pedagogies/educational technologies	education institution on faculty publications and awards
Assessment strategies, feedback mechanisms, feedback timeliness	1. Alignment of the assessment strategies to learning outcomes 2. High learners' completion rate of assessment activities 3. High learner satisfaction with assessment activities 4. Provision of guidelines for assignments, including rubrics/assessment criteria 5. Availability and compliance with policies/ procedures/strategies for assessment and feedback 6. High learners' satisfaction with feedback 7. Availability and compliance with marking and feedback turnaround policy	1. Peer review of the courses 2. Course Guides /course syllabus 3. Learner analytics in LMS 4. Learner Satisfaction Survey (satisfaction with assessments and feedback) 5. policies/ procedures/strategies documents
Prompt and value-added interactions and communications	**In Class interaction** 1. High satisfaction rate in items related to students-professors interactions, communicative activities and tools 2. Positive reflections and testimonies about interaction and communication. 3. Provision of learning activities that promote interaction (i.e., online forum) among learners and teacher's feedback on the learners' discussions. 4. Use of appropriate technologies to facilitate communication **Responding to students' problems** 1. Presence of dedicated students' support offices and mechanisms	1. Students' opinions/satisfaction surveys 2. Study Guides and course syllabi 3. Reports on the technology used for communication and feedback 4. LMS data on interaction and communication 5. CRM-like reports about student problems

	2. Low response time to student problem	
Quality and contextualization of content	1. Active regular peer review process for course contents 2. High student rating of the quality and contextualization of course content. 3. Compliance with quality checks and contextualization process as detailed in institution quality manual, policy, and or guidelines 4. Results of a benchmarking exercise of course content and contextualization against similar courses or programs 5. Positive accreditation reports 6. Third party audit and certification	1. Peer review report 2. Student survey 3. Institutional documents (Quality manual, policy, and guidelines) 4. Internal reports (Content Quality Check form) 5. Benchmarking of the course or program against similar courses or programs
Faculty (fulltime, part-time, physical, and virtual)-to-learner ratio	1. Faculty to learner ratio 2. Overall ratio 3. categorized by fulltime vs part time 4. Per class 5. Ratio of faculty in different roles per learners (contents' authors, interactive didactic and course delivery managers)	1. Validated institutional data
Faculty and Subject Matter Experts credentials and training	1. High overall % of academic staff holding PhDs 2. Compliance with a standard for using PhD level as a minimum for tutoring in Master level 3. Compliance with a standard for using Master degree level as a minimum for tutoring at Bachelor level 4. Compliance with a standard for the match between the faculty terminal	1. HR records of Faculty and SME covering profiles, training records, and professional certificates 2. Institutional data about courses taught by faculty and

	degree specialization and taught subjects	SMEs
	5. Compliance with a standard for the match between faculty professional experience and training with subjects/Courses taught	
Learners satisfaction and perceptions of the environment and experience	1. High score of students satisfaction and perception of the learning environment 2. High score of students satisfaction and perception of the learning experience	1. Learners satisfaction surveys (at the end of each course, annual learner satisfaction survey, and exit survey)

Curricula offer personalization and a flexible path for the learner	Compliance with well-articulated and disseminated policy(s) on:
	  o Ladderized degree programs
	  o Multiple entry points for student admission and exit/graduation
	  o Flexible choice of courses (Elective or major courses)
	  o Cross-registration of courses in other universities
	  o Choice for students to take thesis or non-thesis tracks
	  o Didactic plan flexibility
	  o Recognition of prior learning
	  o Crediting of previously taken courses
	  o Institutional flexibility in enrollment / tuition fees
		1. Institutional documents:
		  o Policies and procedures
		  o Student handbook/catalogue
		  o program guidelines
		  o university handbook
		  o Academic policies and procedures
		  o institution website
		2. Institutional data

Institution integrate multiple mechanisms to ensure proper identity verification and guard against plagiarism	1. Multiple tools and methods for plagiarism detection and prevention 2. Compliance with plagiarism, academic integrity and academic misconduct related policy and procedure 3. Compliance with procedures for Identity check in final exams 4. Active and continuous development of faculty and learners on plagiarism avoidance	1. Plagiarism and academic misconduct policy and procedure, exam guides 2. University handbook; 3. anti-plagiarism software license

	5. Third party audit and certification	4. Data provided by the higher education institution on faculty and learners training
Design, development and evaluation of online courses involve both subject matter experts, learning designers and technical staff.	1. Compliance with policy and procedure of course design, development and evaluation that involves a team of experts including subject matter experts, instructional designers and technical/production managers in the process. 2. High percentage of online courses which were developed through involving subject matter experts, learning designers and technical staff in design, development and evaluation.	1. Policy and procedure on course design and development 2. Course design, development and evaluation report 3. Institutional data
E-learning materials have sufficient interactivity and incorporate regular feedback through self-assessment activities or tests	1. High learners' satisfaction, positive reflections and testimonies on e-learning materials interactivities 2. Courses on the institution platform show high learner-content (i.e., self-assessment questions, guide questions), learner-learner (i.e., discussion forums), and learner-teacher interaction (i.e., activity or assessment feedback) 3. Large number of interactivities and self assessment activities per online course 4. Courses design guidelines mandate interactivities and self-assessment	1. Learning analytics in LMS 2. Learner Satisfaction Survey 3. Courses design guidelines and reports
The institution support digital literacy	1. Courses are designed and implemented to promote digital literacy (i.e., allows learners to find, evaluate, create, and communicate information using digital skills and knowledge) 2. Budget allocation to support digital literacy 3. Implementation of initiatives, plans, e-learning strategy, policy and	1. Study Guide and Courses syllabi 2. Data and records provided by the higher education institution

	procedures that supports digital literacy 4. Involvement in International projects addresses digital literacy 5. Local, regional, or international awards on digital literacy	3. e-learning strategy, Policy and procedure documents
The institution ensures alignment of programs and courses learning outcomes	1. Compliance with international standards describing learning outcomes (example: Dublin Descriptors for Degree Curricula) 2. Implementation of mapping matrix for PLOs and CLOs for all courses 3. Active peer review process of courses and programs that includes assessment of the alignment of programs and courses learning outcomes 4. Annual (or biannual) review and evaluation of courses and programs learning outcome based on feedback from stakeholders and learning data 5. High percentage of alignment of programs and courses learning outcomes)	1. Annual reports on curriculum design 2. Accreditation reports 3. Program and course specifications documents 4. Data and records provided by the higher education institution 5. Peer review report 6. Program evaluation and review reports

2. Learner Services

Indicator	What evidence would you seek to demonstrate a high level of achievement for each indicator	Data source

Range of support services and resources available virtually to learners (i.e. e-Libraries, help desk support, etc.).	1. High number and variety of learner support services and resources available virtually: including
	   o Library
	   o Student counselling
	   o Academic advising
	   o Technical support
	   o Support for learners with special needs, disabilities and minority ethnic group(s)
	   o others
	2. High learner satisfaction score with virtual support services and resources
	3. Students' support services are structured and well-communicated to students and prospect students
	4. Implementation of a plan for maintaining and updating virtual support services
		1. Learners handbook
		2. Institution website
		
		3. Institution's data, records and reports such as self-study and accreditation reports
		
		4. Virtual platform where the services live
		
		5. Learners survey (satisfaction on the range and quality of services)

Availability of virtual complementary services in the context of teaching and learning.	1. Provision of user-friendly and accessible online student orientation materials, student support services (i.e., student enquiries, counseling) 2. High learners' satisfaction and positive reflections and testimonies on virtual services	1. institution website 2. Learners handbook 3. Learners satisfaction with virtual services

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	3. High variety of learner support services and provision of sufficient human and financial resources to learners support services.	4. Virtual platform where the services live
Innovativeness in contextualizing the services to suit target group needs and expectations, cultural context, etc.	1. Learning content management system (LCMS) and Curriculum design comply to international accessibility standards (examples WCAG, UDL, etc.) 2. Availability and compliance with cultural competency review process 3. Availability of student counsellors (either in-house or referred) who can handle a range of psychosocial needs of students 4. Use of student background/profiles to plan student support services	1. Institutional Accessibility policy 2. Policy/procedure documentation 3. data and records provided by institution 4. Institution website 5. Students' services planning document
Quality of academic and career advising	1. High student satisfaction with the quality of academic and career advising 2. Responsive academic and career advising systems 3. Well-disseminated information on how to access career and academic advising 4. High number of intra and extra – curricular internships activated per year 5. Excellent career progression data for students after 1,3,5 years of graduation	1. Students' opinion/satisfaction survey 2. Institutional data 3. Learners handbook 4. Institution website 5. Accreditation report 6. Employer surveys
Availability of learners' service standards and guarantees	1. Service standards and guarantees are available online and communicated in writing to students 2. Achievement of third party audit and certification	1. Data and records provided by institution 2. self-study and accreditation report 3. Third party audit report
Availability of a platform for multipurpose	1. platform available for multipurpose communication between learners and university/college departments/staff	1. Platform description document 2. Platform web address

communication between learners and university/college departments/staff	2. High learners' satisfaction, positive reflections and testimonies on the multipurpose communication platform 3. Local, regional, or international awards	3. Usage statistics and trends 4. Data provided by the higher education institution on awards 5. Accreditation reports

3. **Technology environment**

Indicator	What evidence would you seek to demonstrate a high level of achievement for each indicator	Data source

Choice of technologies (Appropriateness and supports sustainable development of courses as well as services)	1. High satisfaction of stakeholders on the used technologies
	2. Winning education technology awards
	3. Positive comments and high rating by external evaluators and accreditors of the institution's educational technologies
	4. Compliance with IT Framework, infrastructure and strategy explaining how new technologies are selected to ensure appropriateness and sustainable development
		1. Documents such as
		  a. Policy/procedure
		  b. IT strategy
		  c. Description of available technologies
		2. Surveys: faculty, learners and others
		3. Reports: External evaluation reports and accreditation reports

Technological infrastructure (Availability, reliability, update)	1. Implementation of IT strategy and update plan 2. Continuous collection of data on IT logs and trends for availability, downtime, and reliability of IT systems 3. Accurate and complete documentation on implemented preventive and corrective maintenance of IT systems 4. Critical information systems are hosted on the cloud. They are up 24/7.	1. IT documents: strategy, description of the technologies available, IT logs of % of availability, downtime, preventive and corrective maintenance plan

Availability of infrastructure for e-content development	1. Institution has infrastructure for e-content development including
	  o technologies for e-content development
	  o e-content development strategy and plans
	  o Qualified staff (faculty and technical staff) and capacity building programs in e-content development
		1. IT Dept. and institutional reports
		2. e-content production process
		3. Institutional reports and data of IT infrastructure and tools for content development

		4. Staff development records
Information security and disaster recovery	1. Compliance to international standards and certification of data / server protection 2. Compliance with information security and disaster recovery plans, policies, procedures, guidelines 3. Staff training on Information security and disaster recovery 4. Third party audit and certification	1. Data and records provided by institution which may include 2. international certificates (ISO 27001, ISO 22301,…), 3. audit reports 4. Information security and disaster recovery plans 5. Statistics on information security incidents
Personal data protection	1. Implementation of policies which ensure compliance with data protection laws in the jurisdictions in which they operate 2. Compliance to international standards (example GDPR) 3. Third party audit and certification 4. Regular statistics showing no breaching of personal data incidents	1. Policy/procedure documentation 2. Data and records provided by institution 3. International certificates (ISO 27001, ISO 22301,…), 4. Information security plans 5. External evaluation reports and accreditation reports
Agility of the system to respond to disruptions	1. Available and compliance with crisis management response framework 2. Implementation of digital resilient systems (replicated cloud servers, backup records etc.)	1. Data and records provided by institution 2. Information security and disaster recovery plans 3. Statistics on recovery time incidents

4. Outcome and Impact on Society

Indicator	What evidence would you seek to demonstrate a high level of achievement for each indicator	Data source

Graduate competencies	1. High employers' satisfaction, positive reflections and testimonies.
	2. High rating by graduates' of
	   o The applicability of their competences in the professional environment.
	   o Skills and attributes improvement by their study.
	3. Excellent data on graduate performance on national level or international exams
		1. Employer surveys
		2. Graduate surveys
		3. Institutional and national data

Graduate employability	1. High % of graduates who are in full-time employment a year after graduation	1. Alumni survey 2. Employment statistics
Completion rates	1. High completion rate of programs measured as 2. % of learners who successfully complete the courses/programmes they enrol in categorised by different attributes such as program, degree, gender, study year, nationality, ..etc.	1. Learner management system or similar systems such as registration system, Student Information System or Fact book
Choice of programs and alignment with workforce needs (locally, regionally, and	1. Labor market needs, advisory board recommendations, employer feedback are integral part of program selection and development. 2. High employers' satisfaction, positive reflections and testimonies 3. Stakeholders involvement in curriculum design, and programs' update	1. program and curriculum design and development policy 2. Employer surveys

internationally)		3. External (national and international employability statistics) documentation
Community engagement and outcomes (locally, regionally, and internationally)	1. High satisfaction and positive reflections by the community on knowledge resources freely shared by the institution (i.e., OER, Open Courseware, Open technologies, Open Data). 2. Implemented community engagement strategy and action plan 3. Implementation of community related initiatives inline with the mandate of the institution	1. Institution reports and data 2. Community engagement strategy and action plan 3. Community survey
Employers satisfaction	1. High employers' satisfaction rate, positive reflections on graduates competencies	Employer survey

5. Diversity and Inclusiveness

Indicator	What evidence would you seek to demonstrate a high level of achievement for each indicator	Data source
International diversity of learners	1. High percentage of learners who have a nationality different to the nationality of the institution 2. High retention and graduation rate among international learners 3. Availability and compliance with policy(s) promoting learner diversity	1. Admission policy and related procedures and guidelines 2. Student enrollment records 3. Institutional data 4. University handbook 5. Institution website
Gender diversity (faculty and learners)	1. The gender of faculty/learners reflects the proportion of genders in the population 2. Well-articulated and disseminated non-discriminatory or equal opportunity policies on admission and employment 3. Initiatives on gender mainstreaming in the university 4. Equitable representation by gender over specified period of years	1. Admission and employment policies 2. Students' and faculty data provided by institution 3. Records from the registration system 4. Institution website
Access to women and minority	1. Well-articulated and disseminated non-discriminatory or equal opportunity policies on admission and employment 2. High percentage of women and minority groups among learners over the specified number of years	1. Admission policy 2. registration system 3. Fact book 4. Institutional strategy and

	3. High satisfaction, positive reflections and testimonies from women and minority groups 4. Records of initiatives, partnerships, and action plans targeting increasing access to women and minority groups to higher education 5. Equal participation and success rates for women and minority groups compared to all learners, or the gap is narrowed year on year	initiatives for inclusion 5. Data and records provided by the institution 6. Satisfaction survey
Access to those traditionally denied access to higher education - e.g., ethnic minorities	1. Well-articulated and disseminated non-discriminatory or equal opportunity policies on admission 2. High % of minorities and those who are traditionally denied access to higher education among learners, 3. High satisfaction, positive reflections and testimonies from minorities. 4. Records of initiatives, partnerships, and action plans targeting increasing access to those traditionally denied access to higher education 5. Scholarships for vulnerable groups	1. Admission policy 2. registration system 3. Fact book 4. Institutional strategy and initiatives for inclusion 5. Data and records provided by the institution 6. Satisfaction survey

6. Organizational Aspects

Indicator	What evidence would you seek to demonstrate high level of achievement for each indicator	Data source
The existence of an online learning policy that provides direction for the use of technology in learning and teaching.	1. Availability and compliance with a well-articulated and disseminated online learning policy that provides direction for the use of technology in learning and teaching. 2. Purpose and direction of online learning is expressed in the institution's vision, mission, and goals 3. Third party certification	1. online learning policy, procedures, 2. audit report 3. Institution's website, records and reports
The existence of an online learning strategic plan that is widely understood and integrated into the overall strategies and implemented in a time-bound manner	1. Availability and compliance with a well-articulated and disseminated online learning strategic plan that is widely understood and integrated into the overall strategies and implemented in a time-bound manner	1. online learning strategic plan 2. audit report 3. Institution's website, records and reports
Improvement and Enhancement Strategy	1. Availability and implementation of improvement and enhancement strategy 2. Well-documented and regularly implemented university system for monitoring & evaluating online teaching and learning and processes for enhancing online academic programs 3. Initiatives to improve online instruction capacity of the institution (i.e., faculty and tutor development, opportunities for knowledge and experience sharing among teachers, program reviews)	1. The QA handbook 2. Data and records provided by institution 3. Policy/procedure , strategy , plans documentation

	4. Active quality assurance structure in the institution 5. Part of the research activities and projects are focused on institutional continuous improvement (innovative pedagogies, new technologies adoption, best practices exchange, etc.) 6. Positive trends of satisfaction (learners, faculty, staff, employers, trainers) 7. Positive trends of graduation, completion, and retention rate	