



## **Enhancing Quality of Technology-Enhanced Learning at Jordanian Universities**

### **EQTeL**

#### **544491-TEMPUS-1-2013-1-ES-TEMPUS-SMGR**

#### **Self-Sustaining Practices for Jordanian HEI**

### **1. Introduction**

The wider objective of the EQTeL is to promote reform and modernization of higher education in Jordan through the introduction of a national quality assurance system for Technology-Enhanced-Learning (TEL). In order to fulfill the objective, we need to adapt the future directions for how to maintain and improve the eLearning status by developing self-sustaining practices that will play as a long-term maintenance. We need to establish sustainability goals, objectives and clarify measures to track progress. In addition, we need a systemic process helps to face the factors impact on eLearning sustainability such as rapid technological development, adherence to quality assurance standards, stakeholders demand and eLearning culture resistance.

The proposed processes of the self-sustaining practices help to develop the sustainability process in eLearning system.

### **2. Processes for Self-Sustaining Practices**

The report introduces major processes for self-sustaining practices aligned with institutional mission and initiatives and considers critical success variables. These processes play an important role as continual improvement to make progress in eLearning environment. The objectives of Self-Sustaining processes are as follows:

- Maintain and assess the eLearning system
- Identify and manage the risks and challenges
- Control the eLearning procedures

The following are some lists of proposed Self-Sustaining processes for eLearning environment.

#### **2.1 Institutional QA Management Framework and Quality Standards**

Commitment to QA management framework (see figure 1) as a process helps the Higher Education Institutions (HEIs) to improve the long term sustainability of eLearning environment and considered a road map for all processes. It assists the continuous improvement strategy and enables HEIs to measure the processes outcome and impact; also, it can be used as a tool for self-assessment.

According to the accreditation law, the HEAC develops accreditation and quality control criteria for eLearning system ensures that higher education institutions tie up such criteria and other relevant laws.

This framework was developed upon the QA standards designed by EQTeL project team and based on the (EQuAM) model for internal quality management. Methodology of QA management in eLearning is the same methodology in the traditional education. In addition, it focusses on pro-active action rather than reactive action and focus on improvement rather than *and is oriented to continuous improvement rather than oriented to results.*”

There are four processes of QA framework as a follows:

- Establish QA planning, policies and standards.
- Develop procedures manual Develop procedures manual, where principal actions, evidences and responsibilities are defined.
- Determine review activity and tools then implement it.
- Determine analysis activity, determine analysis tools (control chart for timely feedback, number of students in course), root cause analysis (fishbone).

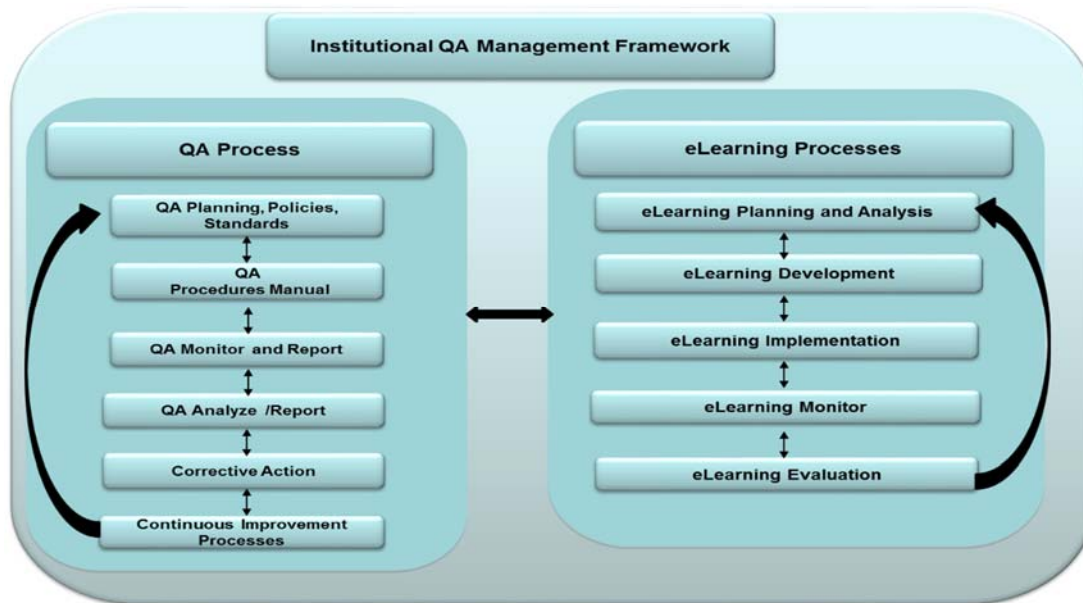


Fig. (1): Institutional QA Management Framework.

## 2.2 Capacity Building Program

Capacity building program is another process that helps the Higher Education Institutions (HEIs) to improve the long-term sustainability of eLearning system by developing long-term capacity building plan and activities which focus on human resources development (staff capabilities and skills), process and structure development, process outcome and impact, technical infrastructures and content design. The proposed capacity building activities were established depending on the capacity building matrix results of Jordanian HIEs.

### 2.2.1 Capacity Building Activities

To ensure sustainability; an ongoing comprehensive capacity building activities must be provided to key target groups of the HIEs. The suggested activities in capacity building for the self-sustaining practices can be divided into the following types: quality issues, technical issues plus administrative and human resources issues then summarized as follows:

#### 2.2.1.1 Stakeholder Management and Communications:

A critical component is to supports self-sustainability. Some proposed capacity activities can be divided in two types as follows:

- Training programs and workshops on stakeholder management and communications, dissemination process and stakeholder need analysis. Furthermore, these activities help the target group (Quality Assurance Staff and Administrative Staff in eLearning Centre) to improve the skills and capabilities of stakeholder management.
- Collaborative assistance programs with EU universities or between the Jordanian universities through study tours, expert experience, seminars are also recommended with aim to exchange the experience in stakeholder management and communication in order to establish strategic, systematic and measurable framework for stakeholder management to implement appropriate methods and technologies for stakeholder management.

#### 2.2.1.2 Quality Assurance Process and Culture

We proposed that capacity activities/mechanism could be divided to the following types:



- Workshop and training programs on quality assurance system, quality culture, quality tools (PDCA, control chart, statistical processes, fishbone) and benchmarking process which include internal and external review. The targeted group are quality assurance staff, technical staff and administrative staff.
- Collaborative assistance programs with EU universities or between the Jordanian universities through Study tours, expert experience and seminar to exchange the experience.
- Conduct workshop and training programs on risk management process that will be organized by EQTeL partners (AArU, HEAC, HEIs, and EU Universities) to increase the skills and capabilities of target group (top management, quality assurance staff, technical staff).

**2.2.1.3 Support Service (Library):** Conduct workshop and training programs as well as study tour on the digital library (as an integrated system with eLearning system), organized by EQTeL partners (HEIs, EU universities) to increase the skills and capabilities of target group (library staff, technical staff). Furthermore, develop expert systems between library process and eLearning process and build digital library, E-Reserves, and portal.

**2.2.1.4 Intellectual Property, Legal Aspects and Ethics:** Conduct the workshop, training programs and study tour on the (intellectual property in eLearning system) with purpose to manage the intellectual property, technical, legal and practical aspects of intellectual property. Moreover, how to create intellectual property manual and ethics code that will do by EQTeL partners, (Higher Education Ministry HEIs, EU universities) to increase the skills and capabilities of target group (IP staff, lecturer, content designer, technical staff). In addition to conduct the collaborative assistance programs with (WIPO) through training programs, expert experience to exchange this experience consequently develop intellectual property system for eLearning.

#### **2.2.2.5 Technological Infrastructures**

- Acquire hardware equipment (i.e. interactive whiteboard, visual presenter, digital podium, digital tablet, graphic tablet, projector, desktop computer (both power Mac and IBM-based), laptop computer, smart (LED/LCD) panel, touch overlay, interactive response system, smart table, classroom amplification system, airliner wireless slate, smart attendance system, DVD/CD player, sound bar system, USB wireless adapter scanner, OMR scanner, smart printers, digital copier machines, plotters, wireless routers, servers).
- Acquire software tools (i.e. server OS workstation OS, LMSs, antiviruses, authoring tools, image editing and manipulation, animating tools, sound narration tools, sound editing, video editing, assessment systems, statistical analysis tools, office, etc).
- Hire technical staff (i.e. system engineer, software engineer, media experts, graphic designers, instructional designers, linguistic experts, QA, technical experts, education experts).

#### **2.2.2.6 ELearning Planning and Design**

Provide a training on instructional design to keep pace with developments in instructional methodologies and new technologies. Conduct workshops about implementing active learning, introduce and implement a risk management framework and establish a training that aims to explore eLearning development tools. Provide a training on how to design and develop interactive eLearning courses as well as conduct a training on learning management system administration and support employees to get certificates in eLearning (i.e. UCI eLearning Instructional Design certificate, ATD certificate). In addition to provide a project management training for eLearning professionals and follow the proposed quality assurance framework to develop other courses.

#### **2.2.2.7 ELearning Evaluation and Assessment**

A comprehensive framework that includes assessing learning process and student's outcomes has been built. The framework was successfully applied on the implementation of the three pilot courses on several partners'



universities. Provide a training about eLearning evaluation and assessment as well conduct workshops on evaluation tools usage in addition to build a comprehensive approach to measure the organizational results and provide training on relevant statistical analysis tools and techniques.

#### **2.2.2.8 Support Service (Knowledge Base)**

Build a project knowledge base that contains information about the project and the developed course.

#### **Discussion and Conclusions**

The effectiveness of self-sustaining processes is depending on the stakeholder engagement in both management and practitioner levels. In addition, it is important to find a means of institutional decision-making (Leader Role) in self-sustaining processes. eLearning practice considered as a part of a learning and education system, therefore the sustainability of e-learning practice must be aligned with the environmental sustainability as a whole. This report shows the plan of self-sustaining practices for Jordanian HEI through several processes such as QA framework, Procedures manual of eLearning system, capacity building focus on training of Jordanian HEI, implement accreditations and quality standards. The report also presents some types of capacity building for all eLearning issues such as training, collaborative assistance, seminars, workshops and mainly focuses on the collaboration relationship between Jordanian universities to help each other; moreover, it focuses on the appropriate training of HIEs in EU universities in order to transfer the knowledge and experience.

Finally, there is no single process for self-sustaining practices that can be implemented to work in all circumstances. However, the following recommendations will help to achieve the best practices on sustaining process:

- Scan and find the adequate consideration of opportunities within the eLearning environment.
- Focus on engaging all stakeholder within planning, implementation, and assessment processes.
- Ongoing training and awareness for human resources.
- Keep up to date with the dynamic change of technology.
- Ongoing support especially from top management.
- Focus on performance management through QA framework.