

## E-LEARNING MANAGER

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*ABSTRACT: This article presents some findings of the E-Learning Manager (ELM) Project regarding the implementation of an Europe-wide certification for learning professionals. The members of the project identified three main domains/units in which an e-learning manager should possess skills: pedagogy; technology and management. For each domain there were several elements identified and rated according to the results obtained after the piloting stage.*

*Key words: e-learning manager, skill set*

*Jel codes: A2, M12, M15*

### Introduction

E-learning is a flexible and far-reaching tool which enables information sharing, content distribution; learner needs assessment and achievement evaluation, with the overall goal to facilitate transfer of knowledge and skills needed to cope with the constant changes.

The E-Learning Manager [ELM] proposal is being made in a context where e-learning is the most successful educational technology of all time, reaching into all aspects of traditional education and training but where no specific Europe-wide accreditation exists either for those charged with implementing e-learning solutions in their professional working lives or those who hold it as their profession to specifically manager e-learning teams and developers (ADAM, 2009).

Against this background the ELM project will offer a flexible and relevant recognition of these key vocational skills, ensuring mobility for workers between regions and sectors and offering assurance to employers of the given competence of those charged either with the work of co-ordinating e-learning teams or evaluating and choosing e-learning solutions.

In the above context the ELM project is proposed to support both the transparency and recognition of a particularly vital competence and to introduce an appropriate qualification where none exists already. The ELM project aims to address the practical experiment of implementing current international standards and certification for e-learning managers.

### Project Description

In the project there are six partners: Department of Education Development of the Cork Institute of Technology (DEIS CIT) - Ireland, International Software Quality Institute (ISQI) - Germany, International Software Consulting Network (ISCN) - Austria, Corvinno Technology Transfer Ltd. – Hungary, Babeş-Bolyai University – Romania and Plovdiv University – Bulgaria.

The ELM system is based on an integration of e-portfolio and LMS technology in a way that provides a means to assess and recognize both non-formal and informal learning through the submission of evidence.

system and program are thought to be of relevance and interest not only to e-learning managers but ultimately to managers/human resource personnel/trainers etc seeking to implement e-

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learning solutions in-house (as is increasingly the case) or to adapt them as part of a wider customer service. Participants of the project will receive certification, the benefits of which include: quality control (minimum standards) in e-learning and e-learning solution management; accountability and transparency; quality enhancement/assurance in the field; and the facilitation of mobility.

### Literature review

The success of e-learning in recent times has allowed it to grow into one of the most successful educational technologies of all time (Boehle, 2005). Nowadays, constant innovations and rapid technological changes are commonplace in business. This raises the need for continuous vocational training and the lifelong acquisition of skills and competencies in order to cope with the constantly changing working conditions and also turning these changes into advantages (Gunasekaran *et al.*, 2002).

E-learning is a cost-effective and efficient way of training people, both in universities and in the industry. Tucker and Gentry (2009:47) considers that higher education institutions need to adopt the right design with solid content and suitable technology as an e-learning activity. They also stress that in an e-learning venture one should obtain the commitment and support of management, staff and students.

E-learning used as a training method in the industry can be applied to SMEs and multinational corporations, as well. For the SMEs a major issue in adopting e-learning solutions is the learner's level of ITC proficiency (Anderson *et al.*, 2010) and the strive to share information and knowledge among departments. In order to become competitive by using e-learning SMEs can and have to focus on two additional aspects (SMElearning, 2004): the *proximity factor* (in a small team the knowledge needs to be shared to allow that each team member can take the role of the other one) and the *disclosure factor* (usually SMEs live from a core knowledge which they can sell to larger companies. If the core knowledge gets lost then either the SME loses its business or is sold out to the large customer).

For large corporations, in comparison with SMEs, the distance and information communication are other barrier to implement and exploit e-learning solutions. Netteland *et al.* (2007) considers that to overcome this barrier and to succeed in an enterprise-wide implementation of large-scale learning a corporation should take into account several aspects regarding information sharing: the information should be targeted towards specific user groups; and the company should focus on information sharing, update, coordination and consistency.

Indifferently the size, structure or type of organizations implementing e-learning solutions, a main issue an e-learning manager should be concerned of is efficiency and effectiveness of such a venture. The problem of quantifying ROI for an e-learning mission is that it can't be expressed strictly as "the ratio of money gained or lost" because the outcome of e-learning, the increase in knowledge and skills can be quantified only in qualitative terms even though these qualitative benefits can offer indirect financial benefits for all the stakeholders. This is why an e-learning manager when dealing with the management of a customer organization which intends to implement an e-learning solution has to "translate" the qualitative benefits into quantitative terms because he or she has to answer the question: how much will this cost us? Or how will our profit increase? addressed by management.

Brown D., (2008) citing Bielawski and Metcalf (2002) considered that the real ROI in e-learning resides in: reduced number of training vendors, decreased training travel costs, decreased costs/hr of training, reduced time off task for trainees, increased audience impact, improved response time – meet needs, improved cycle time for training delivery, demonstrated knowledge during training, trainees satisfaction, increased positive management feedback.

### **The Skill Set**

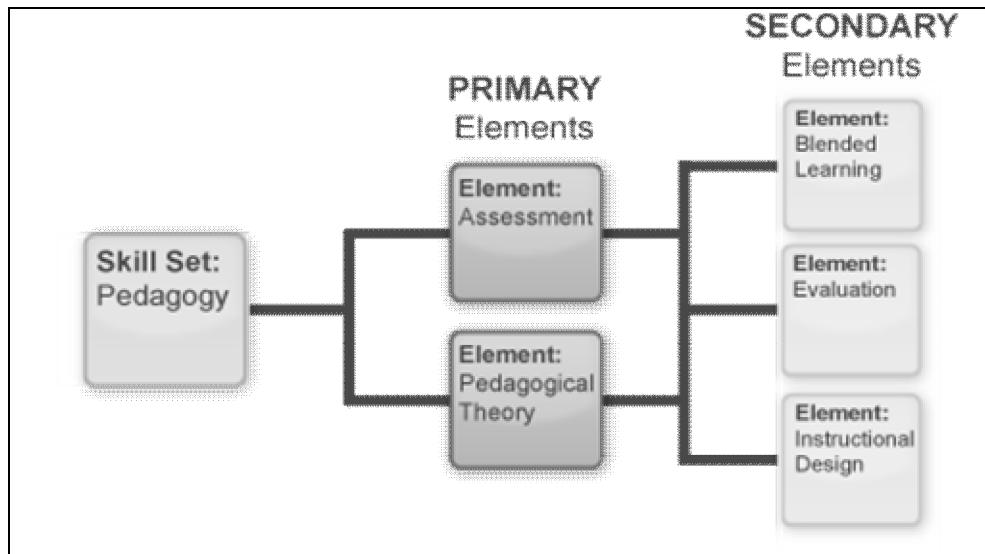
The e-learning management skill set, developed as part of the project, describes the “ideal” skill set for an e-learning manager. This skill set was developed based on literature review and partners’ reflection on experience and was then collaboratively evaluated and enhanced by 134 professionals currently involved in the e-learning industry. This skill set consists of three main skill units with a number of elements defining these. These skill units and elements are presented below.

**Pedagogy:** in many account of pedagogy the etymology of the word is often commented on; it is an indication of how the term is understood and used in the overall context of the ELM project. In the context of the ELM project however the term “pedagogy” is used in its broadest sense to refer to the theory and practice of teaching and learning. Often, pedagogy is overlooked in favor of a technological answer to a pedagogical issue. This unit consists of the following:

- **Instructional design:** an e-learning manager should at very least understand the instructional design process in terms of constituent phases and tools and also have a broad understanding of instructional design as a discipline including its key concepts and theoretical frameworks;
- **Pedagogical theory:** pedagogical theories similarly help us understand what is taking place when teaching and learning are going on and should ideally provide us with guidance as to how, in various ways, improve this teaching and learning;
- **Evaluation:** having in mind the complex environment in which e-learning courses operate, like the physical distance that exist among the tutors and students, the problem of evaluation has a much broader sense then it was ever thought;
- **Educational policy:** essentially refers to the various legislation and rules, implicit and explicit, which govern the operation of education at all levels; as such education policy is something e-learning managers need to be aware of;
- **Assessment:** e-learning can encompass a wide repertoire of assessment tools that can range from high-constraint, less complex methods such as true/ false questions to low-constraint, highly complex methods using the provision of evidence of learning.

These elements were initially equally weighted in the course content development process, self-assessment questions and final exam, but after the first piloting stage partners considered assessment and pedagogical theory to be primary elements for the examination and the other as being secondary. It was considered that an e-learning manager should: knowledgeably discuss learner needs with clients; diagnose from a pedagogic perspective why certain e-learning implementations may or may not be applicable; implement valid and reliant assessment processes; evaluate programmes based on a range of pedagogical criteria; make pedagogically-informed choices and decisions regarding the design and development of a range of e-learning solutions.

Schematically, this breakdown of elements can be presented as follows:



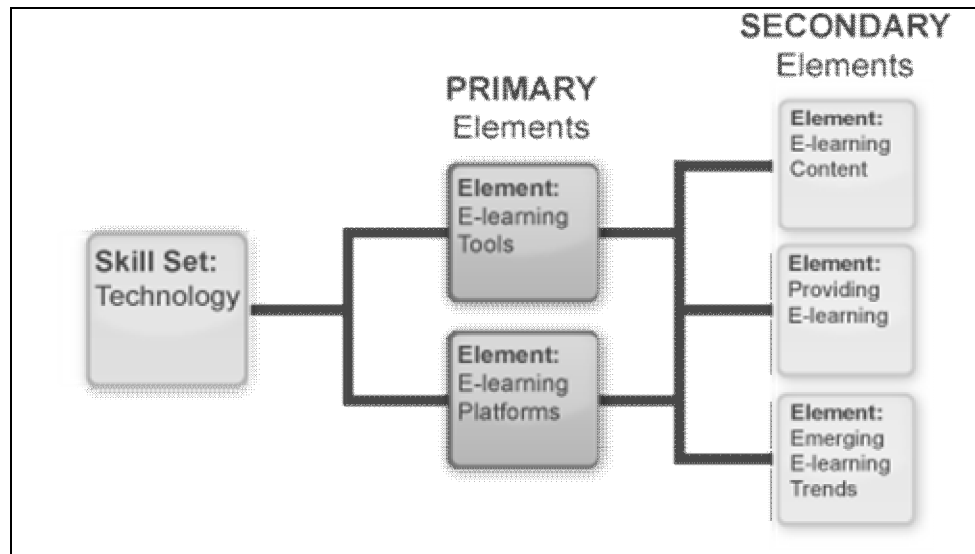
**Fig. no. 1 - Pedagogy unit – element breakdown**

Technology: e-learning technology has, over time, become more and more a branch of technology in its own right. More than merely underpinning the provision of e-learning, areas such as standards, interoperability, learning objects and virtual learning environments has become specific areas of research and development. Technology is an enabler, providing the development, delivery and assessment of e-learning content. This skill unit consists of the following:

- **E-learning tools:** effective e-learning has a variety of standard tools with which to provide learning. An e-learning manager should be familiar with the most common tools involved in e-learning and should be able to effectively utilize and prescribe these tools accordingly.
- **E-learning platforms:** it is important for an e-learning manager to be knowledgeable on virtual classrooms and to be able to competently utilize these for communication, tutoring and collaboration, as well as having a broad overview of the Sharable Content Object Reference Model and its role in Learning Management Systems.
- **E-learning content:** an e-Learning manager should be able to consider and utilize a variety of different types of e-learning content for students – ranging from text, PowerPoint and excel document creation to web development to flash and rich-internet-application development to screen and video recording.
- **Providing e-learning:** an effective e-learning manager should be able to realize the factors that influence the way in which e-learning should be delivered and provide the information in a suitable form.
- **Emerging e-learning trends:** to be truly effective in providing an e-learning service, an e-learning manager should be aware of growing trends in the sector. Recently, the two main emerging trends have been web 2.0 and the field of mobile learning.

Based on the similar process as for the Pedagogy Unit, after a first round of courses, E-learning tools and E-learning platform were considered to be primary elements. It was considered that an e-learning manager should be able not just to develop e-learning content, but should be able to: prescribe appropriate delivery methods based on the organization; ensure communication with the monitoring of students in a regular occurrence; be able to make use of new and innovative trends and technologies, such as those offered by the “web 2.0” movement, to induce students to engage in communication and activities.

Schematically, this breakdown of elements can be presented as follows:



**Fig. no. 2 - Technology unit – element breakdown**

Management: from this perspective e-learning should support the strategic development of learning organizations, and should focus on core knowledge which multiplies benefits across the firm and the properly select and acquire and employ supporting e-learning platforms. Company managers would not invest into an e-learning technology without having a proper strategy already in place for creating learning organizations, core knowledge, etc. This unit addresses this need and explains the necessary analysis to be done so that managers can be convinced of the value of e-learning and also receive guidance in doing the necessary analysis to create that learning strategy.

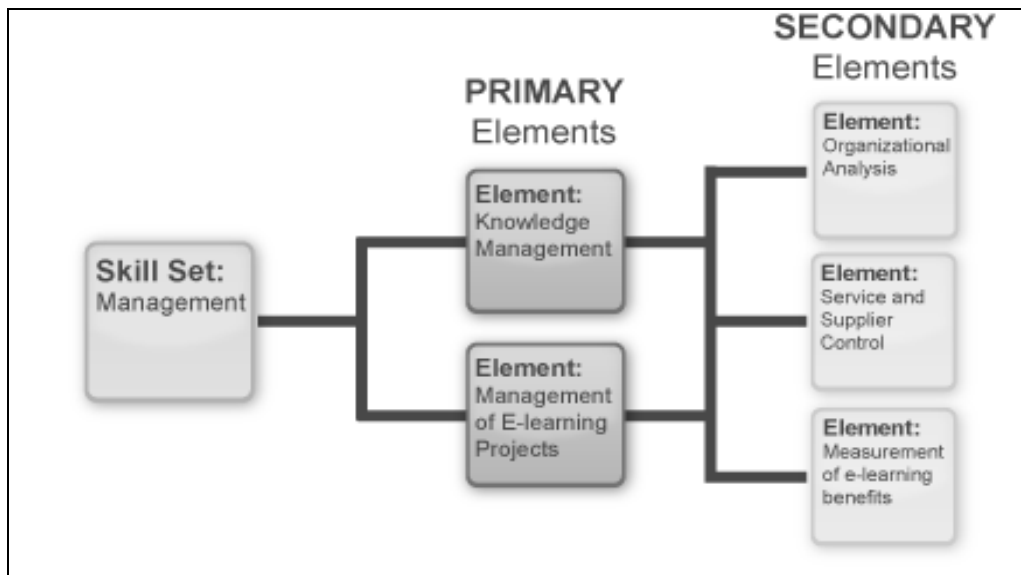
This skill unit consists of the following elements:

- **Organizational analysis:** this element deals with the typical organizational structures for creating a learning organization strategy and how one can support this with e-learning methodologies in the organization;
- **Knowledge management:** an e-learning manager should understand and be able to handle the concept of knowledge and its importance to the client company considering the impact it can have on the mission, objectives, performance and ability to adapt to changes. Also the e-learning manager should be aware of the two approaches to knowledge management system: information and people;
- **Management of e-learning projects:** an e-learning manager should be aware, or know the different standards that exist in information technology in order to ensure that the content development is compatible with the delivery system chosen to transmit the content and also to ensure a proper evaluation method and feed-back solution. He also has to know the standards or specifications in the field e-learning;
- **Service and supplier control:** an e-learning manager should know strategies and case studies about how to establish requirements for selecting the proper tool, how to evaluate and introduce the tool, how to support and maintain them and how to control the performance;
- **Measurement of e-learning benefits:** an e-learning manager should know strategies and case studies about how to measure and demonstrate the benefits of the implementation of e-learning strategies;

Consistent with the previous units the partners reconsidered the importance of each element and it was established that: Knowledge management and Management of e-learning projects are primary elements for course content development, self-assessment and final examination. An e-learning manager should understand and handle the concept of knowledge and its importance to the client company considering the impact it can have on the mission, objectives, performance and

ability to adopt to changes. Also, an e-learning manager has to consider project management as a continuous activity that doesn't stop after the final assessment because e-learning has to be a systematic activity in order to ensure the sustainability of the process and to offer a competitive advantage to the client organization. Further, an e-learning manager has to know the existing project management tools: PRINCE 2, Microsoft Project Manager, and also project control systems to ensure that the project doesn't exceed the time, budget or human resource limitations.

Schematically, this breakdown of elements can be presented as follows:



**Fig. no. 3 - Management unit – element breakdown**

### Conclusions:

Following the conclusion of the piloting period, information on the exam in which participants can gain accreditation will be made available. The examination and accreditation will be made through the European Certification and Qualification Association [ECQA]. The examination will be in the form of a number of *multiple choice questions* which participants will take online. They will still have access to the learning management system courses and Capability Advisor up until the exam date, so reflection can continue up until that point. Through the ECQA it becomes possible to attend courses for a specific profession in one country and perform a Europe-wide agreed test at the end of the course. The certificate will be recognized by European training organizations in 18 member countries (ECQA, 2009).

Why is such accreditation of interest? European work forces are highly flexible and need to work for industries across Europe. Imagine that you are attending a course in one country and that you perform and pass the exam at the end of the course. The certificate will then be recognized by certifiers and training organizations in all European countries. This will automatically lead to a higher recognition of the certificate and higher chances of working for customers in an open European market (ADAM, 2009).

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