

W
L
C
T
R
A

Roles and Responsibilities in an e-learning Project

Part II – Subject Matter Experts

In the classroom environment one person, the trainer, performed a variety of different roles. He/she conducted a learning needs analysis, developed the course, created materials and taught the students. Now that has all changed.

In the e-learning world not only are the roles slightly different, but the competencies required are often very different. The “sage on the stage” with highly developed teaching and face-to-face interaction skills has been converted to the “guide on the side” – a facilitator rather than a teacher. In well-designed e-learning programmes the subject matter expert is also far from the only expert, or the only source of knowledge. The online medium can encourage much more sharing of knowledge amongst the learners, and the use of an extended set of resources from Web sites to online libraries.

The format and shape of the content also has to be different because of the different methods of delivery. A course consisting of PowerPoint slides, a VHS video, role playing exercises and supplementary notes does not necessarily translate directly into e-learning. There are new learner approaches, new design techniques, new opportunities for learning delivery and new technologies to be used. Support, rather than coming mainly from a teacher, may now have to come from a variety of sources depending on the type of support needed – learning process, subject matter, technical, use of tools etc.

Overall, it is very likely that one trainer wearing many hats will now have to be converted to many separate people in an e-learning context, simply because of the breadth of skills needed and the time required. Although there are many roles involved in an e-learning development project, below are some of the key roles which revolve around the area of a subject expert, or the former ‘teacher’.

Subject Matter Expert roles

- Subject matter expert
- Course designer
- Developer
- Writer/text editor
- New content researcher
- Subject matter tutor
- Co-ordinating facilitator

The **Subject Matter Expert (SME)** needs to be involved from the start to finish in any e-learning development. In many cases, the final solution may be blended learning, involving both classroom and online learning and therefore the role may vary. From an e-learning development project perspective, the difference is that the person will act more in the role of an advisor, designer and editor of the solution rather than the physical creator of it. The SME should be able to provide information on the audience of the learning including their prior knowledge and capabilities, as well as the overall learning objectives, most effective learning strategies for this subject and the topics to be covered.

Depending on the individual, that person may need to have additional help from an expert **online designer**, as the best way to deliver the solution is very different. Sometimes those people who feel they ‘own’ the course can become a little short-sighted about alternative ways of presenting and using the content. We have seen many a course which was simply a series

W
L
O
I
T
R
A

of PowerPoint slides, or the equivalent of a book online, and they just don't work! Those people who can teach face-to-face may not be able to create online text, produce and maintain stimulating online discussions or develop effective online graphics and animations. They may be able to manage the people side of a synchronous debate using a virtual classroom, but be unable to control the tool and technology at the same time. At the other extreme from the 'change averse technophobe' classroom teacher, is the one who sees a whole new set of toys and becomes immersed in playing with these features, forgetting about the real learning objectives. Having an experienced guide through the design process ensures objectivity, and a match between the learning objectives, their delivery and technical capability.

Creating effective online content usually requires a separate set of experts, with the technical knowledge and expertise in the chosen tools. The role of the SME is to determine the objectives and outline design at the beginning, and to test and approve the results at the end. In between, this person should be working together with the **developers** to agree the detailed design and review the work in progress. In some cases the content may be generated by the SME, but he or she may simply be inefficient as a developer because of lack of time or development skills. In this case someone with the role of a formal **writer/editor** may be needed, in addition to that of a multimedia developer if required.

It is becoming easier for non-experts to develop online content as a wider selection of 'generator' tools and templates become available. Major vendors such as Macromedia put considerable effort into the supply of tutorials, manuals, support and templates, but even so, for quality work created in an efficient manner, the development effort should be left to those whose whole life is spent using these tools.

Not all content is physical and not all of it is present when a course starts – some, for example, may be discussions, or products developed through teamwork by the learners, and the SME should still be looking to design these additional activities. Both at the design stage and once a course is up and running there may be a need to look for new and alternative sources of information, approaches to exercises, or experts to participate. Here a specialist role of a **researcher** could come into play, although many subject matter experts will fulfil this role themselves, based on their existing network of contacts and knowledge.

The role of the SME during the learning process often depends on the availability and cost of that person. Typically, e-learning takes place over a longer period of elapse time than most classroom courses, and an expensive expert may not be able to commit to continuous long periods. It may make sense to split the role into two. One person with a moderate level of knowledge of the subject, good facilitation skills and the ability to encourage learners can act as the day-to-day **facilitator**. This person ensures that the learners are supported, and that where outside help is required, it is obtained quickly and efficiently. The core competency in this role is that of facilitation, and where a subject matter expert may have the time, but not that skill, then it is also advisable to split the role. The SME then acts in a more traditional role of a pure subject matter expert – answering questions, setting learning direction where required, and supplying additional resources and information. If the right person fits both roles, then by all means combine them into one, but do ensure the facilitation skills, competency in use of online tools and the time are all available. More than in the classroom, the learners are aware of the quality of personal support that they receive, and this job has the highest potential for determining the success or failure of a learning programme.

Each e-learning programme will need to adjust the number of experts involved in order to produce the optimum results, and more often than not, the team composition is dependent on the skills and roles played by the SME. Those roles should be determined by requirements and skill levels, not just by a desire to perform them.

E
L
E
C
T
R
O
N
I
C
A
R
T
I
C
L
E

ROLE	RESPONSIBILITY	SKILLS/KNOWLEDGE
Content expert/ Subject Matter Expert	<ul style="list-style-type: none"> • Provides content for the course • May redesign/repackage existing content and develop new content to meet e-Learning needs • Edits course for content quality 	<ul style="list-style-type: none"> • Good knowledge of subject area • Ideally, PC skills to allow person to do some data entry of content – see writer/text editor job below
Course designer	<ul style="list-style-type: none"> • Define student population • Define learning objectives & requirements <ul style="list-style-type: none"> • Determine learning model • Define interaction strategy • Determine instructional approach • Define testing/assessment strategy • Design skeleton course • Define media needs • Establish course design standards & guidelines • Ensure development adheres to design 	<ul style="list-style-type: none"> • Instructional/learning design, at least for classroom courses, preferably for online learning. • Working knowledge of products being used for design/delivery • Knowledge of potential audience
Writer/text editor (and developer)	<ul style="list-style-type: none"> • Adapts existing material to meet course needs/creates new content • Formats content based on the course design (developer) • Enters content into course following standards and guidelines • Produces or acquires media/graphics as needed (developer) • Develops introduction/completion/help or any other administrative content • Completes first level edit check for spelling/grammar and consistency. 	<ul style="list-style-type: none"> • Good PC skills, including wordprocessing, desktop publishing, skills in graphic manipulation and online content design. • High standard of written work/spelling/grammar. • Works well in a team • Good communicator

W
E
L
C
O
M
E
T
O
O
U
R
A
R
T
I
C
L
E

ROLE	RESPONSIBILITY	SKILLS/KNOWLEDGE
New content researcher	<ul style="list-style-type: none"> • Searches out and develops content which does not already exist. 	<ul style="list-style-type: none"> • Knowledge of the subject matter • Good librarian/search skills
Tutor/ Subject Matter Expert	<ul style="list-style-type: none"> • Provides in-depth understanding of subject, additional references, questions & answers • Provides insight, stimulation, encouragement to students • Evaluates student performance 	<ul style="list-style-type: none"> • Subject matter expertise • Teaching/facilitation skills
Facilitator	<ul style="list-style-type: none"> • Manages day-to-day process students will follow • Answers process queries • Obtains answers for students from other experts and ensures problems resolved • Manages discussions, including starting, archiving, summarising, etiquette. 	<ul style="list-style-type: none"> • Facilitation skills • Ownership of problems • Self-discipline & good time management skills • Customer service skills