

Challenges to creating an eLearning process: An analysis of the contractual terms and conditions using Multi Attribute Decision Making^{1, 2}

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ABSTRACT

In a world pushing educators to prepare students to be creative, collaborative, and interdisciplinary in their approach to technology and online, how do we ensure the integrity of student work and navigate derivative works? This presentation seeks to answer some of the questions that arise when educators look to engage student creativity, but still ensure mastery of core competencies and learning outcomes. As a trade-off, students have fewer opportunities, overall, for face-to-face learning which is an integral component of the traditional classroom learning environment. The purpose of this research is to investigate the advantages and disadvantages of using Different learning tools versus traditional methods, while examining individual learning styles and the role they might play in the efficacy of learning and retention.

Keywords: Request for Change, Methodology, Monte Carlo simulation, e-learning, digital technology, IT.

INTRODUCTION

In this era of constant technological development, it became a necessity for every type of business to adapt themselves to these changes. Learning is one of the sectors that has successfully adapted to the development of new technology with what is globally called E Learning. The e learning process by which the person can learn through online content is now a becoming a norm even in a business or at school. The major players provide a vast array of solutions that can be customized according to the requirements of the user. Most frequently it

¹ Editor's note: Student papers are authored by graduate or undergraduate students based on coursework at accredited universities or training programs. This paper was prepared as a deliverable for the course "International Contract Management" facilitated by Dr Paul D. Giammalvo of PT Mitratata Citragraha, Jakarta, Indonesia as an Adjunct Professor under contract to SKEMA Business School for the program Master of Science in Project and Programme Management and Business Development. <http://www.skema.edu/programmes/masters-of-science>. For more information on this global program (Lille and Paris in France; Belo Horizonte in Brazil), contact Dr Paul Gardiner, Global Programme Director, at paul.gardiner@skema.edu.

² How to cite this paper: Solanki, P. (2018). Challenges to creating an eLearning process: An analysis of the contractual terms and conditions using Multi Attribute Decision Making, *PM World Journal*, Volume VII, Issue VIII - August.

seems to be used for web-based distance education, with no face-to-face interaction. Furthermore, it is often used interchangeably with various other related terms, such as distance learning, distributed learning, and electronic learning.

E-Learning is the delivery of instructional content using various electronic technologies. The learning medium, solving the problem of time and financial constraints, may be delivered either synchronously (live) or asynchronously, also called distributed or self-paced learning. Since its introduction, e-Learning has found widespread applications in IT, marine, retail, healthcare, telecommunications, and financial services sectors, which utilize these programs for training employees as well as for disseminating information. Worldwide e-Learning market continues to witness rapid developments which are driving adoption among the academic and business sectors. Robust growth in the online learning market is driven by increasing accessibility and cost-effectiveness of learning and training initiatives. Multiple advantages offered by e-Learning technology in the form of faster delivery, reduced learning cost, greater degree of flexibility, and ability to generate user-specific content are driving demand for e-Learning programs. Another factor favoring adoption of e-Learning products and technologies is the proliferation of Internet.

Furthermore, content packages are set as per the requirements of the curriculum and can be conformed to suit the needs of the end-users. Increasing adoption of training solutions in the corporate landscape, irrespective of their industry vertical, is a major factor promoting the e-learning market growth. Online solutions continuously collect the user information and give a customized feedback of the user's performance. Furthermore, the students can immediately connect to a tutor or service provider in case of any issues. However, it requires constant connection with the internet to function effectively. Online solutions are increasingly gaining a foothold in the global e-learning marketplace.

This paper examines the creation of the eLearning module comprises of three tasks: writing content, creating graphics, and integrating the multimedia elements.

It will answer the question what is the main challenges to create an e learning module?

METHODOLOGY

Step 1- Problem definition

Before the content is developed, we need to determine whether the learning problem on hand is worthy of being researched and developed into a course. Often, successful eLearning organizations or companies with in-house eLearning departments face the looming challenge of "what should the next eLearning course be about?" Many companies seek eLearning solutions for the sole purpose of knowledge management and knowledge development. When course mentors facilitate large volumes of knowledge sharing, they feel they can filter out

content for the next course. Without doubt, the online discussion forum in your learning management system is a perfect place to identify learning problems.

But, are those problems worth researching and developing into complete courses? How do you determine the research worthiness of a problem? What are the steps that lead to this decision?

To summarize, this paper has been designed to research, analyze and answer the following questions:

1. How much time it should take to complete writing content?
2. How to create a graphics?
3. How to integrate the multimedia elements?

Step 2- Identify the feasible alternatives

We chose three contents that have different purposes to compare and analyze their Alternatives and conditions.

First, for writing content there should be a storyboard template to decide whether you want to use Word, PowerPoint, or a commercial application, also it should have clear idea of goals and objectives beforehand. Research is key to creating a successful eLearning storyboard. Conduct focus groups, surveys, and one-on-one interviews to learn as much as possible about your audience, including their educational background, culture, professional knowledge base, experience level, and what skill sets or knowledge you need to include in your eLearning course. Writing content for each of your objectives will help you keep your eLearning storyboard flow natural and your audience focused

Second, for creating a graphics, a convenient form of data representation, the tree structure enables you to visualize the whole training conversation you are developing, designing a contextual setting and adding a voice-over to the scenario.

And third, for integrating multimedia elements Images and graphics, animations, eLearning videos, all these and a lot more help the audience to capture best the message you need to get across. Decide upon all the multimedia elements it will incorporate into eLearning course by including an analytical description of each in the corresponding part of your eLearning storyboard. Be sure that on each screen for visual and audio elements, such as clips, narrations, and interactive scenarios.

Step 3- Development of the outcome for alternatives

With the help of writing content it will Have clear learning objectives for eLearning to build the structure of eLearning content; knowing exactly about learners to achieve their motive and so learning becomes as effortless as possible and thus more immersive. And Give step-by-step instructions that have specific outcomes and Share guidelines to help the learner solve problems. And, the objectives for each module were written in terms that learners should understand, not just what designers cared about. It should have some objectives for the modules.

By creating a Graphics we can choose the best color scheme, multimedia, and layout based on client specifications and online learner needs. And, it typically turns eLearning storyboard elements into reality. Also choose a situation for the scenario and then design your scenario.

To integrate the multimedia the important parts of learning content should be suitably highlighted with summarizing or other instructional strategies. This helps process the information better and remember essential parts of the learning content and it is better to include graphics and narration or animation and narration than an onslaught of all available elements - on-screen text, graphics, animation, as well as narration. The inclusion of graphics in eLearning is thus very important.

Let us try to understand this with the help of an example. Suppose we are managing a project involving creation of an eLearning module. So, by Multiple Attribute Decision-making we can find the best selective attribute with the following table:

Selection Attributes	Writing Methods	Creating Graphics	Multimedia Integration
Days	8	5	2
Impact	Fair	Good	Excellent
Technique	Good	Good	Excellent
Quality	Fair	Good	Excellent
Improves Continuous learning	Good	Good	Excellent
Engaging for students	Fair	Good	Excellent
Inspirational and Transformative	Good	Good	Excellent
Equity in Education	Good	Good	Excellent
Cost	Less	More	Expensive

Step 4- Selection of the criteria

To decide which of this element i.e. writing content, creating graphics, and integrating the multimedia elements are mostly used, we chose the following criteria:

In a writing content when you're developing an e-learning course, you often need to rely on the knowledge and expertise of others, particularly, your subject matter experts and whole will be in a content of writing analysis with some images and graphics and it takes more days to develop course. And, people will not get that much impact on e learning.

By using Multimedia elements, understanding effect will be more compare to the other elements and it improved problem solving and it will take less days to prepare. A large percentage of the human brain dedicates itself to visual processing. Thus, using images, video and animations alongside a text stimulates the brain. With a positive attitude we can learn better and tend to be more proactive. With computers, tablets, smartphones and the internet, students are today better equipped than ever to search and find the information they need. Give the learner visual cues so that they're able to follow the course content and understand how it all fits together.

Findings

Step 5-Analysis and comparison of the alternatives

To select the preferred Modules as Writing Methods, Creating Graphics & Multimedia Integration, we created the following table to compare these Selective Attributes.

COST			Days			Quality	
20\$	$50-20/50-20=1$	1	8	$8-2/8-2=1$	1	Fair	0
40\$	$50-40/50-20=0.33$	0.33	5	$5-2/8-2=0.5$	0.5	Good	2
50\$	$50-50/50-20=0$	0	2	$2-2/8-2=0$	0	Excellent	3
						More	1

Selection Attributes	Writing Methods	Creating Graphics	Multimedia Integration
Days	1	0.5	0
Impact	0.33	0.67	1
Technique	0.33	0.33	0
Quality	0.67	0.33	0
Improves Continuous learning	0.33	0.33	0
Engaging for students	0.67	0.33	0
Inspirational and Transformative	0.33	0.33	0
Equity in Education	0.33	0.33	0
Cost	1	0.33	0
Total	4.99	3.48	1

People have different learning styles. Some learn better by reading, others by seeing and some others by hearing or doing hands-on activities. E-learning needs to address these varied styles of learning. This is done by carefully integrating text, audio, graphics and images, so that it has a balance of all stimuli that appeal to all learners.

There are different 12 Selection Attributes by which eLearning can be methodized. In which writing, methods have larger time taken as well as this strategy entails requesting e learners to write in their own words. Writing is an effective exercise to rephrase and verbalize newly learned concepts. A great way to do this is to ask the e Learners to rate their mastery on a page, by selecting the number of stars and also days will be spent more on researching and writing.

By creating a Graphics is a rough, visual outline that helps map out how text, pictures, and other elements will look on a page. This will help you see how your page will look before you waste time putting together the final design only to find out the elements don't fit together right, and it will get more time to prepare.

Multimedia elements are core parts in eLearning development. We integrate pictures, animations, videos into learning materials demonstrating new ideas, processes, and technologies to help the understanding and making the training programs more effective. Everybody uses them in daily practice, but nobody knows are they enough up to date and can we apply every existing facility. The technical development is so quick, to catch the right solution is easy. The second part is to deals with application of nowadays results. It gives some analyze of pedagogical methodology how to integrate multimedia elements into eLearning development. In terms of Cost it will be more expensive than others but on the other way it is too helpful for Public to watch as well as Grasping very quickly.

Step 6- Selection of the preferred alternative

Learning and education are the enablers of social and economic change, with attainment of learning often dictating an individual's ability to enter professional careers and maintain a comfortable lifestyle. As with many aspects of modern society, the landscape of higher education has been significantly impacted by the coming of the internet age. With the realization of the internet age learners can still access the curriculum of any number of higher education institutions, but now via the web, at a time and a place convenient to them.

E-learning courses are looked upon as a costly option for Multimedia, that require huge resources and finances. With the help of relative ranking we can relate the different criteria's as Multimedia integration is in more specific use now a day compare to others. And creating a Graphics is also an important strategy but now a day the markets are in huge demand for multimedia. Also by Writing methods it will take a lot of days to work on that as well as now a day's people are not into that criteria to read all those things which is describe as they are in

totally engage in videos because with that criteria person can easily understood and grasp the thing very easily.

To decide which Creation of Methods, provide the best way to implement, we created the following table.

Selection Attributes	Step1	Step 2	Writing Methods		Creating Graphics		Multimedia Integration	
	Relative Ranking	Normalized Weight(A)	(B)	(A) * (B)	©	(A) * ©	(D)	(A) * (D)
Days	1	0.07	1	0.07	0.5	0.03	0	0
Impact	4	0.09	0.33	0.03	0.67	0.06	1	0.09
Technique	9	0.20	0.33	0.07	0.33	0.07	0	0
Quality	3	0.07	0.67	0.04	0.33	0.02	0	0
Improves Continuous learning	5	0.11	0.33	0.04	0.33	0.04	0	0
Engaging for students	6	0.13	0.67	0.09	0.33	0.04	0	0
Inspirational and Transformative	7	0.16	0.33	0.05	0.33	0.05	0	0
Equity in Education	8	0.18	0.33	0.06	0.33	0.06	0	0
Cost	2	0.04	1	0.04	0.33	0.01	0	0
SUM	45	1.04	SUM	0.49	SUM	0.39	SUM	0.08

Step 7- Performance monitoring and post evaluation of result

Analyzing the performance of eLearning will help show that the investment in eLearning is paying off.

In summary, the four levels are:

- **Level 1 measures the reactions of learners:** What did they think about the training?
- **Level 2 measures learning:** What was increase in knowledge or capability?
- **Level 3 measures behavior:** What was the extent of behavior and capability improvement?
- **Level 4 measures results:** What was the effect on the business?

When judging a multimedia integration eLearning people expect to see tangible performance results following implementation of the training program. An e-learning project can be evaluated for specific evaluation purposes. You may want to evaluate learners' reactions, the

achievement of learning objectives, the transfer of job-related knowledge and skills, and the impact of the project on the organization.

CONCLUSIONS

So, it has been concluded that the e-learning course has involved systems training, invite the learners to move on to apply what they've practiced using the real system. The Multimedia module is a great opportunity to point to further learning opportunities and to encourage the learner to act on what they have learned.

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