

Proven Methods to Enhance e-Learning Process Using Social Media (Materials, Interaction, and Competitive Advantage)

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Abstract: The effective design of online learning materials should be based on educational theory. The description of these learning theories can help to develop the process of learning for learner. Most online education institutions failed to deliver real value that could earn profitable return from learners. There are many reasons why online distance education institutions have failed, including high cost of technology, poor decisions, competition, and the absence of appropriate (or any) business strategies, especially market assessment of consumer demand. This paper investigates learning components that should be used when designing online materials. Also the use of value chain analysis that facilitate the strategic management of an organization. Results inform educators that one can use a combination of theories to develop online learning materials and value chain analysis can help an institution to determine which type of competitive advantage to follow and how to implement it. The paper discusses the learning theories that online materials will be based on and how to gain a competitive advantage to survive in highly competitive business environment.

Key words: Online learning, value chain analysis, social media.

1. Introduction

E-learning defined as the use of the Internet to access learning materials; to interact with the content, instructor, and other learners; and to obtain support during the learning process, in order to acquire knowledge, to construct personal meaning, and to grow from the learning experience [1]. It allows for flexibility of access, from anywhere and usually at any time essentially, it allows participants to collapse time and space [2].

The design of the material determines the effectiveness of the learning. The development of effective online learning materials should be based on proven and sound learning theories. As there is no single learning theory to follow, combination of theories can be used to develop online learning materials [1].

There are many reasons that made online distance education institutions have failed, including high cost of technology, poor decisions, competition, and the absence of appropriate (or any) business strategies, especially market assessment of consumer demand. Most failed to deliver real value that could earn a sustainable and profitable return from learners. They failed to capitalize on the Internet's capacity to support convenience, service, high quality learning, customization, richness, and other features of value to learners.

Surviving in highly competitive business environment, any organization must achieve, at least temporarily, a competitive advantage. Differentiation strategy creates a unique position in the market through provision of goods or services that are valued for their uniqueness or fit to the needs of a particular group of buyers. It also requires ongoing cost control efforts within a strategic management emphasis geared towards differentiating offerings [3].

The research is about “what are the learning theories that online materials will be based on and how to gain a competitive advantage to survive in highly competitive business environment”

The purpose of this research is to help Learners to choose the appropriate strategy to meet their learning needs. Also online learning will be increasingly diverse to respond to different learning cultures, styles, and motivations. Gaining and sustaining a competitive advantage requires that the organization understands the entire value delivery system, not just the portion of the value chain in which it participates.

2. Designing Online Learning Materials

There are many schools of thought on learning, to select the appropriate strategies; the online developer should know the different approaches to learning. And the question here is how these different schools of thought can be used to develop effective online materials [1].

2.1. Behaviorist School of Learning

This school used to teach the “what” (facts). Behaviorists claim that it is the observable behavior that indicates whether or not the learner has learned something, and not what is going on in the learner’s head. But not all learning is observable and that there is more to learning than a change in behavior. Learners should be told the explicit outcomes of the learning so that they can set expectations and can judge for themselves whether or not they have achieved the outcome of the online lesson [4].

2.2. Cognitivist School of Learning

This is another school of thought on learning, used to teach the “how” (processes and principles). Learning involves the use of memory, motivation, and thinking, and that reflection plays an important part in learning. Learner uses different types of memory during learning.

Sensations are received through the senses into the sensory store before processing occurs. The information persists in the sensory store for less than one second if it is not transferred to working memory immediately, it is lost. Because humans have limited short-term memory capacity, information should be grouped into meaningful sequences [4]. Learners use their sensory systems to register the information in the form of sensations. Strategies to facilitate maximum sensation should be used. Examples include the proper location of the information on the screen, the attributes of the screen (color, graphics, size of text, etc.), the pacing of the information, and the mode of delivery (audio, visuals, animations, video).

Online learning materials should present between five and nine items on a screen to facilitate efficient processing in working memory.

A generalized information map can be linear, hierarchical, or spider-shaped. Information maps can provide the “big picture” to learners, to help them comprehend the details of a lesson [5].

Online learning materials should include activities for the different learning styles, so that learners can select appropriate activities based on their preferred style [6].

Concrete-experience learners prefer specific examples in which they can be involved, they like group work and they see the instructor as coach or helper. **Reflective-observation learners** like to observe carefully before taking any action. They prefer that all the information be available for learning, and see the instructor as the expert. **Abstract conceptualization learners** like to work more with things and symbols

and less with people. Active-experimentation learners prefer to learn by doing practical projects and through group discussions. They tend to establish their own criteria for evaluating situations [1].

2.3. Constructivist School of Learning

This school used to teach the “why” (higher level thinking that promotes personal meaning and situated and contextual learning).

Learners should be allowed to construct knowledge rather than being given knowledge through instruction [7].

Keeping learners active doing meaningful activities results in high-level processing, which facilitates the creation of personalized meaning.

Learners should construct their own knowledge rather than accepting that given by the instructor. The students have to take the initiative to learn and to interact with other students and the instructor, and because the learning agenda is controlled by the student [1].

Learners should be given time and opportunity to reflect. The learning materials should include examples that relate to students, so that they can make sense of the information.

3. Interaction in Online Learning

All forms of education (including that delivered at a distance) are essentially interactions between content, students, and teachers [8]. The three most common forms of interaction in distance education: **student-student**, **student-teacher**, and **student-content**. This list was expanded to include **teacher-teacher**, **teacher-content**, and **content-content** interaction [9] as seen in Fig. 1.

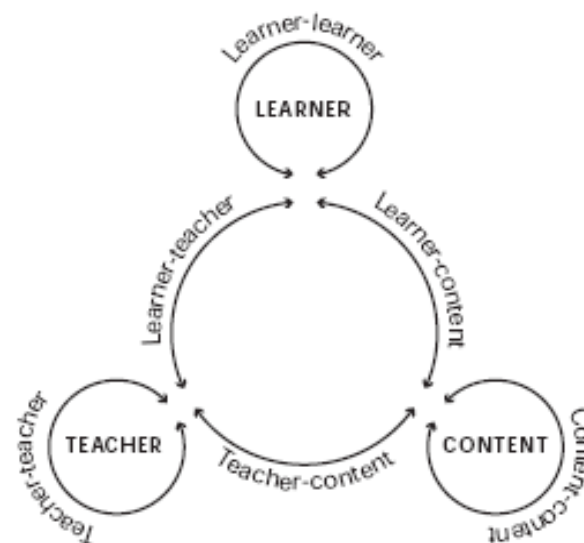


Fig. 1. Educational interactions.

3.1. Student-Student Interaction

In this form of interaction learners develop interpersonal skills, and investigate tacit knowledge shared by community members as well as a formal curriculum of studies [1].

3.2. Student-Teacher Interaction

It is supported in online learning in a large number of varieties and formats that include asynchronous and synchronous communication using text, audio, and video. It leads many new teachers to be overwhelmed by the quantity of student communications and by the rise in students' expectations for

immediate responses [10].

This form of interaction uses an adaptive interface based on several stereotypical user classes to modify the environment to suit individual users. It also provides adaptive advice, and model the learner's use of the environment (including navigational use, answers to questions, and help requested) to make intelligent suggestions about a preferred individualized path through the knowledge base [1].

3.3. Teacher-Teacher Interaction

This interaction creates the opportunity for professional development and support that sustains teachers through communities of like-minded colleagues. These interactions also encourage teachers to take advantage of knowledge growth and discovery in their own subject and within the scholarly community of teachers [1].

3.4. Teacher-Content Interaction

It concentrates on the formation of content and learning exercises by instructors. It permits instructors consistently to redesign the content and exercises that they make for student learning [1].

3.5. Content-Content Interaction

Recently creating mode of educational interaction in which content is customized to communicate with other automated data sources, in order to refresh it always, and to gain new capabilities. For example, a weather tutorial might take its data from current meteorological servers, creating a learning context that is up-to-date and relevant to the learner's context [1].

4. A model of e-Learning

A first step in theory building often consists of the construction of a model in which the major variables are displayed and the relationships among the variables are schematized as shown in Fig. 2.

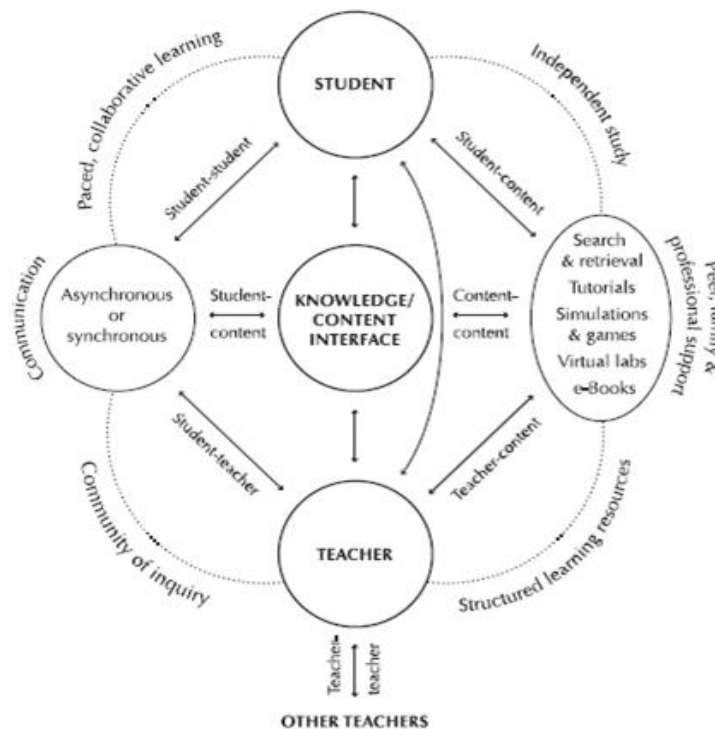


Fig. 2. A model of online learning showing types of interaction.

Fig. 2 illustrates the two major human actors, learners and teachers, and their interactions with each other and with content. Learners can of course interact directly with content that they find in multiple formats, and especially on the Web. This interaction can take place within a community of inquiry, using a variety of Net-based synchronous and asynchronous activities (video, audio, computer conferencing, chats, or virtual world interaction). These environments are particularly rich, and allow for the learning of social skills, the collaborative learning of content, and the development of personal relationships among participants. The second model of learning (on the right) illustrates the structured learning tools associated with independent learning. Common tools used in this mode include computer assisted tutorials, drills, and simulations. Virtual labs, in which students complete simulations of lab experiments, and sophisticated search and retrieval tools are also becoming common instruments for individual learning. The student is not alone. Often colleagues in the work place, peers located locally (or distributed, perhaps across the Net), and family members have been shown to be significant sources of support and assistance to independent study learners [1].

5. Gaining a Competitive Advantage

To survive in highly competitive business environment, any organization must achieve, at least temporarily, a competitive advantage. There are three main types of competitive strategy are cost leadership, differentiation, and focus [11]. **Low cost/price strategy** focuses on providing goods or services at a lower cost than the competition, or superior goods or services at an equal cost. In education, by reducing the complexity of the course design and production process, or by limiting service or learner support. **Differentiation strategy** creates a unique position in the market through provision of goods or services that are valued for their uniqueness or fit to the needs of a particular group of buyers. It also requires ongoing cost control efforts within a strategic management emphasis geared towards differentiating offerings. **Focus strategy** targeting a very specific segment of the market as defined, for example, by type of learner, specific type of program offered, or specific characteristics of a geographic area [1].

6. Analyzing Value Chain

Value chain analysis can help an institution determine which type of competitive advantage to pursue, and how to pursue it. The key to analyze the value chain is understanding the activities within the institution that create a competitive advantage, and then managing those activities better than other institutions in the industry [1].

The activities of a business can be grouped under two headings: **primary activities**, and **support activities** [11].

6.1. Primary Activities [1]

Inbound logistics involves preparations for course development, including curriculum planning; acquiring or preparing for learning specific hardware (LSH), learning management systems (LMS), and learning content management systems (LCMS); hiring of authors; ordering of reference materials, including textbooks; and formation of internal course teams.

Operations involve the actual process of course development, including writing, multimedia creation, editing, formatting, graphic design, printing, and Web publishing.

Outbound logistics concerns the packaging and storage of courses, and the process of mailing or otherwise delivering the material to the students.

The service sector provides online support (technical and academic) to learners, counselling, tutoring,

marking of assignments and examinations, delivery and invigilation of examinations, and maintenance of student records. A value chain analysis explicitly recognizes the interdependencies and the profit cost efficiencies accruing from exploiting linkages among value activities across the organization.

Delivery a well-designed course (one value activity) will lose value if not complemented with a suitable delivery strategy.

6.2. Support Activities [1]

Organizational infrastructure, which is concerned with finance, planning, quality control, and general senior management.

Human resource management, it is dealing with recruiting, developing, motivating, and rewarding the workforce of the organization.

Technology development, it is dealing with managing information processing and the development and protection of "knowledge" in the organization.

Procurement, it deals with how resources are acquired for the organization (e.g., sourcing and negotiating with suppliers).

7. Conclusion

A variety of learning activities should be used to accommodate the different learning styles. Online learning will be increasingly diverse to respond to different learning cultures, styles, and motivations. Online learning will enhance the critical function of interaction in education in multiple formats and styles among all the participants. Value chain analysis is a framework that can provide a number of benefits to the management of online learning organizations. This analysis can help managers of these organizations to identify linkages between value activities within the organization, and to think in terms of process rather than function or department. Gaining and sustaining a competitive advantage requires that the organization understands the entire value delivery system, not just the portion of the value chain in which it participates.

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