

# Exploring a Joint Model of Conventional and Online Learning Systems<sup>1</sup>

**Chirag Patel**

Rennes International School of Business

**Taran Patel**

Rennes International School of Business

## **ABSTRACT**

*Which of the three processes in business education leads to optimum student learning: conventional learning processes, online learning processes, or joint conventional and online learning processes? This question is found to be theoretically and practically important when we view online education as a radical innovation. Taking this radical innovation view of online education, we create a theoretical framework that seeks to answer the above research question. We provide a number of propositions that compare the components of online learning systems with components of conventional learning system in terms of their ability to lead to superior student learning. The components of conventional and online learning systems in business education used for comparison are the pedagogical role of the instructor, the teaching/learning environment, the motivational level of the students, the role of action learning in business education, and the role of creativity in business education. The propositions result in the creation of a combined conventional and online learning system that we term the “integrated learning model.” We propose that this model leads to optimum student learning.*

*This model is applicable to conventional universities going online as well as purely online universities. It advises conventional universities to create a combined learning process for their traditional offline students and at the same time advises them and purely online universities to create offline learning centers in different geographical zones when addressing students enrolled*

---

1. A previous version of this article was presented to the 8<sup>th</sup> NIBS International Conference hosted by the Rennes International School of Business, April 2003.

*in distance learning programs. Finally, we provide support for these propositions through examples of a conventional business school and an online university that have succeeded by using the combined learning system.*

**Keywords:** *Conventional learning system, Asynchronous learning system, Integrated learning model, Optimum student learning, Radical innovation.*

## INTRODUCTION

This paper takes the theoretical perspective of online education to be a radical innovation. Radical innovations have been defined as innovations that embody a new technology that results in a new market infrastructure (Colarelli, 1998). If a new market infrastructure results from a radical innovation (e.g., the World Wide Web), new firms and new customers also emerge for that innovation. The creation of new firms and new customers is evidenced in online education by the recent growth of universities offering online education. Higher education in the United States has seen a proliferation of online distance education initiatives in the last few years (AACSB, 1999; Fusilier and Durlabhji, 2003). A number of prestigious business schools (e.g., Harvard, Duke, and Stanford) have also entered into alliances with for-profit companies to deliver MBA programs over the Internet (Webster and Hackley, 1997). It is estimated that nearly half of all U.S. colleges and universities provided online educational offerings, serving nearly 2 million students in the U.S. in 2002, with growth estimates as high as 5 million by 2006 (Wechsler, 2002).

While the literature acknowledges the World Wide Web to be a radical innovation in many industries (Garcia and Calantone, 2002), it has not been clearly viewed as a radical innovation in the context of online education. This view-point is central to our article because it provides theoretical and managerial validity for the research question. The radical innovation view of online education points out the existence of a new market of online education with new customers. It indicates that all traditional universities adopting online education programs will be faced with the managerial question of organizational structure that all conventional firms adopting a radical innovation will face (Gulati and Garino, 2000): *Should online business education be integrated with conventional business schools or should it remain separate or should there be partial integration?*

In line with Gulati and Garino (2000), we propose that the answer depends on the organizational structure that has operations which lead to optimum value for the customer in the old market as well as in the new market, i.e., optimum student learning in this context. Hence, we narrow the above question to the following research question by taking the context of business education in particular: *Which of the three processes in business education leads to optimum student learning: conventional learning processes, online learning processes, or joint conventional and online learning processes?*

This theoretical framework answers this question by analyzing and comparing the components of conventional learning systems with the components of online learning

systems in light of their ability to create optimum student learning. We contend that some components of the online learning system are likely to lead to superior student learning while complementary components of the conventional learning system are also likely to lead to such an outcome. This suggests that universities that provide education to students by combining components of the conventional learning system with components of the online learning system will succeed in creating superior student learning. These suggestions are applicable to conventional universities going online as well as purely online universities. We advise conventional universities to create a combined learning process for their traditional offline students and at the same time advise them and purely online universities to create offline learning centers in different geographical zones when addressing students enrolled in distance learning programs. We also advance current literature on comparing a conventional learning system to an online learning system. Current literature has focused on empirically demonstrating that student learning resulting from online learning systems is not inferior to student learning resulting from a conventional learning system (e.g., Allen et al., 2004; Peltier et al., 2003). Other research studies focus on benefits offered by an online learning system along with a link to positive learning outcomes (e.g., Nulden, 1999; Vogel et al., 2000). Most of these studies are built on theoretical foundations such as constructivism, co-operative learning, social interdependence, and situated learning (Chang and Lim, 2002).

The next section introduces a framework from which we derive a number of propositions that compare the components of an online learning system with components of a conventional learning system in terms of their ability to lead to superior student learning. The article ends with support for these propositions through examples of a conventional business school and a British university focused on distance learning that have succeeded by using the joint learning system.

## **THEORETICAL FRAMEWORK AND PROPOSITIONS**

Based on a review of the literature, we develop a framework that combines components of the online learning system and conventional learning system which are likely to lead to superior student learning. The combined system is termed the “integrated learning model” (Figure 1) and we propose that it leads to optimum student learning.

### **Definitions**

**Online Learning System.** The characteristic of the online learning system is that it is an “Asynchronous Learning Network” (ALN). While offline or synchronous learning environments include face-to-face learning environments and video in class, online or e-learning environments are asynchronous learning networks (ALNs), which by definition provide the capability to learn anywhere and at any time. The technological systems are

designed to support anytime and anywhere interaction among learners, and between learners and instructors (Benbunan-Fich and Hiltz, 1999). Hence, they are different from traditional distance learning methods (e.g., video broadcasting).

The implementation of an ALN is supported by a distributed computer system. The distributed systems include information servers, such as the File Transfer Protocol (FTP) and Hypertext Transfer Protocol (HTTP) (Aviv, 2000), synchronous chat systems, and virtual networks that permit multicast transmission of video and audio (Wegereif, 1998). The different tools for communication between learners can also be viewed as a technology infrastructure supporting an educational activity. This infrastructure as studied in previous research includes e-mail, newsgroups, and Group Support Systems (GSS) (Nulden, 1999). Currently, ALNs also refer to the courses that use the Internet as the means of accessing learning materials.

The major tools currently in use in ALNs are: use of computer conferencing for submission of homework; discussion of issues and providing help; online materials that include syllabus, assignments, reading, problems and interactive learning modules; course management via homework submission, instant grading, and roll-ups of student progress; interaction with students through e-mails; audio clips of lectures via real-time audio and downloadable audio; and video clips of lectures via real-time video and downloadable video.

Review of most courses currently on the Web reveal that few offer most of these features. Many courses online consist of little more than a syllabus and a list of assignments. Some universities that have taken the lead in online course development (e.g., the University of Illinois, Drexel, NYU, and Vanderbilt) have courses that contain more extensively developed materials.

### **Theoretical Framework**

In order to effectively answer the research question, we will first carry out a systematic comparison between components of conventional and online learning systems in business education, namely the pedagogical role of the instructor, the teaching/learning environment, the motivational level of students, the role of action learning in business education, and the role of creativity in business education. We will also justify the importance of these components in contributing to student learning.

**Pedagogical Role of the Instructor in a Conventional Learning System for Business Education.** Here, we discuss the process of good teaching and the three pedagogical roles of an instructor. The function of good teaching is to activate cognition with appropriate Teaching/Learning Activities (TLAs). That is, one face of good teaching is to encourage students and to use a deep approach. The second face of good teaching is to discourage

students from using the surface approach. To do this, we need to identify any factors in our own teaching that might have this effect and eliminate them. There is a range of verbs from high to low cognitive level that need to be activated in learning our unit. The highest would refer to such activities as reflecting, theorizing and so on, the lowest to memorizing, and in between are various levels of activity. When using a deep approach, students use the full range of desired learning activities; they learn terminology, they memorize formulae, but they move from there to applying these formulae to new examples and so on. When using a surface approach, there is a shortfall; students handle all tasks, low and high, with low-level verbs. The teaching challenge is to prevent this shortfall from occurring, or to correct it where it has occurred. These cognitive levels of learning activities are explained by Biggs (1999).

In order to accomplish these learning objectives, instructors are expected to enact several different roles. A review of research suggests cognitive, affective, and managerial roles that are enacted by instructors in traditional settings (Coppola et al., 2002).

- The *cognitive* aspect of instruction deals with mental processes pertaining to perception, learning, information storage, memory, thinking, and problem solving. The face-to-face environment demands that the instructor be more spontaneous and gives liberty in the degree of structure of the instruction (Coppola et al., 2002).
- The *affective* aspect includes instructor behavior related to influencing students' relationships with other students in the classroom.
- As the *managerial* role deals with class and course management, it includes instructor behavior related to course planning, organizing, leading, and controlling. Course planning deals with the effort involved in getting the course ready. Organizing deals with establishing relationships between the instructor and others in administration, between students and the instructor, and among students so that course goals can be achieved. Leading deals with instructor behaviors that reflect motivation and co-ordination of students and controlling deals with monitoring and evaluating students' learning outcomes (Coppola et al., 2002).

The question that we raise here is: *Does the online learning system (ALN) influence the three pedagogical roles of the instructor so as to create superior student learning as compared to the student learning resulting from the pedagogical roles of the instructor in the conventional learning system?* This question is addressed next.

**Pedagogical Role of the Instructor in an Online Learning System (ALN) for Business Education.** Coppola et al. (2002) have studied the changes in roles that occur when faculty shift to an online learning system. Discussing the *cognitive* role of pedagogy in ALNs, Coppola et al. (2002) have looked for changes that occurred in instructors' cognitive pro-

cessing because the communication medium changes in ALNs from oral to written and because the need for increased course planning in ALNs suggests that there is less spontaneity and more formality in the instruction. They found that learning becomes more obviously a two-way process online. Professors have reported learning from students' experiences. Responses to questions also become more reflective and deliberate. That is, professors were engaging in a deeper level of mental processing as they edited both questions and responses to questions. Faculty frequently spoke of being more reflective or carefully crafting their own responses.

Coppola et al. (2002) also found that ALN helped extend students' ability to analyze information because instructors could easily guide students to other sources of information on the Web to assist in their analyses. Additionally, Coppola et al. (2002) note that in a traditional class, when a question is asked, only a few respond. In an ALN, all students are frequently required to respond. This added effort helps students engage in rehearsing and retrieving information. The online medium theoretically extends think time and retains contribution of ideas so that the instructors and learners can stop to think and understand without missing intervening conversation. Hence, the mental processes of learning, information storage, and thinking shift from a superficial to a deeper cognitive level for both faculty and students by moving from a traditional offline system to an online one.

Discussing the *affective* role of pedagogy in ALNs, Coppola et al. (2002) suggest that faculty reported that their affective role changed in terms of nonverbal communication, intimacy, and energy/humor. This change resulted in some misunderstandings in the problems of students and replies of the instructor. Such misunderstandings were easily cleared up by telephone conversations. In terms of intimacy, instructors found that in spite of the lack of nonverbal expression, their relationship with the students online was more intimate and more connected. This is probably because the students are not in a group and there is active one-to-one interaction.

Discussing the *managerial* role of pedagogy in ALNs, Coppola et al. (2002) explain that ALN environments demand that the faculty plan and structure a course much more tightly than for classroom-based teaching. A great deal of time is required to gather and organize materials and put them into digital or other media formats. Organizing efforts are also increased in getting students into the conference as well as interactions with other administrative units. Further, the facilitator (leading) role gets magnified and results in the faculty being more proactive, aggressive, and directive in terms of a leadership role. There is also more scope and demand for faculty control and monitoring of student progress. This takes the form of enhanced faculty activity by having to be online frequently to answer student questions and to guide them in the right direction regarding assignments.

The changed pedagogical role implies that the nature of ALNs creates a natural demand for deep student learning as opposed to surface learning. Furthermore, the dis-

cussion presented above also shows that both the affective as well as managerial roles of the teacher become more prominent in the online learning system as compared to the traditional offline learning. Hence, we propose that:

*P1: The cognitive and managerial roles of a teacher in an online learning system (ALN) are likely to lead to superior student learning as opposed to the same roles demanded of a teacher in the conventional learning system.*

#### **Motivation of Students in a Conventional Learning System for Business Education.**

Two factors make the students want to learn something:

1. It is important; it must have some *value* to the learner.
2. It must be possible to do the learning task; the learner has to *expect success*.

The two points mentioned above relate to the Expectancy-Value theory of motivation, which says that if anyone is to engage in an activity, he or she needs both to value the outcome and to expect success in achieving it (Feather, 1982). Value and expectancy are said to multiply, not add, because both factors need to be present; if either one is zero, then no motivated activity occurs. We now explore the two major factors mentioned above: *expectation* and *value*.

What makes students expect to succeed or fail? With a history of successful engagement with content that is personally meaningful, the student both builds up the knowledge base needed for deep learning and, motivationally, develops the expectations that give confidence in future success: what are known as feelings of self-efficacy and ownership.

The second term of the expectancy-value formula is *value*. How can we enhance the value of the task to the students? The general answer is clear enough: make their work important to them. Work can be important in various ways, each one producing a familiar category of motivation: extrinsic motivation (what the outcome produces), social motivation (what other people value), achievement motivation (the opportunity for ego-enhancement), and intrinsic motivation (the process of doing it) (Biggs, 1999).

The purpose of going into such depth in order to understand the process of motivation is to highlight the fact that the role of the instructor is very important in maintaining students' motivational levels. The lack of person-to-person interaction between the instructor and the student might lead to motivational problems for the latter. This issue is raised next when we discuss online learning systems and pose the question: *Does the online learning system (ALN) influence the motivation of students so as to create superior student learning as compared to the student learning resulting from the motivation of the students in the conventional learning system?*

#### **Motivation of Students in an Online Learning System (ALN) for Business Education.**

As mentioned earlier, the motivation levels of students are influenced by the perceived

value of what they are involved in and by the expectation of success in the future (Feather, 1982). Since there is no evidence yet regarding the influence of online learning on these two major factors influencing motivation levels of students, there is no way a comment can be made on the direct influence of an online education system on the motivational level of the students. However, Coppola et al. (2002) have already suggested that learning becomes a two-way process online. They add that students are frequently required to respond or participate. We can state from personal experience that this might put some students in some countries in discomfort. It is well known that students from certain cultures, especially the Asian cultures, are much more apt to accept knowledge without much of interaction with the instructor (Morse, 2003). But overall, online learning has the benefit of improving participation quality, quantity, communication openness/access, and post-participation review/access for reference purposes (Morse, 2003).

Again, Coppola et al. (2002) have shown that in online education the facilitator role of the instructor gets magnified and results in the faculty being more proactive, aggressive, and directive in terms of a leadership role. Again, although this factor in itself might not influence the motivation level of the students, it may influence the climate of the virtual classroom and might be perceived by some students as being counterproductive. Further, Coppola et al. (2002) found that the level of intimacy between the instructor and the students improves online as compared to the conventional classroom. These factors, in the authors' opinions, should positively influence the motivation level of the students. Hence, we propose that:

*P2: Motivation of students in an online learning system (ALN) is likely to lead to superior student learning as compared to motivation of students in a conventional learning system.*

**The Teaching/Learning Climate in a Conventional Learning System for Business Education.** We believe that individual teachers, like institutions as a whole, create a learning climate through formal and informal interaction with students. This climate is about how instructors and students feel about things, which naturally has positive or negative effects on students' learning. McGregor's (1960) distinction between Theory X and Theory Y assumptions about human trustworthiness is a good way to characterize that climate. What interests us is how the climate affects the learning process (Biggs, 1999).

The effects of the classroom climate on student learning come about in several ways. Cognitively, Theory X restricts the range of potentially useful ways of learning, particularly self-directed learning. Effectively, Theory X generates negative feelings, which distract from proper task engagements, directly encouraging a surface approach. The aim is to get the task out of the way. Theory X promotes two counter-productive emotions in-particular: anxiety and cynicism. A Theory Y climate does not necessarily mean a disorganized

teaching/learning environment. An organized setting, with clear goals and feedback on progress, is important for motivating students, and for the development of deep approaches (Hattie and Watkins, 1988; Entwistle et al, 1989). Knowing where you are going, and feedback telling you how well you are progressing, heightens expectations of success (Biggs, 1999). Again for better or for worse, the instructors, their personalities, and the way in which they interact with the students definitely influence the teaching/learning climate. The question raised next is: *Does the online learning system (ALN) influence the teaching/learning climate so as to create superior student learning as compared to the student learning resulting from the teaching/learning climate in the conventional learning system?*

**The Teaching/Learning Climate in an Online Learning System (ALN) for Business Education.** The online learning system requires a more formal and structured approach which is likely not to allow instructors to bring in the human touch. Since instructor skills at interacting with the students are not useful in the online environment, we propose that:

*P3: The teaching/learning climate in a conventional learning system is likely to lead to superior student learning as compared to the teaching/learning climate in an online learning system (ALN).*

**Role of Action Learning in a Conventional Learning System for Business Education.** Action learning is based on taking open or more crucial organizational problems and, in real time, analyzing their dynamics; implementing proposed solutions, derived from the constructive criticisms of colleagues; monitoring results; and through being held responsible for these actions, and learning from the results so that future problem solving and opportunity taking is improved. In theory this is a little different from the logical procedure of any rational person attempting to solve organizational problems. But organizations rarely behave rationally. In practice, irrationality is generated by misunderstanding the complexities and uncertainties of modern organizations. Such irrationality interferes with achieving the blend of logic and emotionality necessary to transcend organizational difficulties. The action learning process attempts to achieve this blend through giving rigor and pace to the cycle of learning and through using the positive powers of small groups, to sustain this discipline and rhythm. Structural elements of action learning are that the authority and responsibility for analysis and implementation are given to those people who have psychological ownership of the problem and must live with their proposed solution. The whole is underpinned by the proven assumptions that people learn most effectively with and from colleagues in the same position.

In this new role, it is impossible for the trainer to maintain a safe, off-line role. Commitment to launching action learning processes in an organization is undoubtedly

more risky than traditional stances. But the reward is in bringing trainers directly into the line functions as part of their career development. It seems that the management of an action learning program is a useful test of general management competence. Perhaps in the future we shall see this as a natural move in any manager's career path as the acid test before taking on responsibilities of general manager positions (Biggs, 1999).

Considering this important component of business education, we raise the question: *Does the online learning system (ALN) influence action learning so as to create superior student learning as compared to action learning resulting from the conventional learning system?* This question is addressed next.

#### **Role of Action Learning in an Online Learning System (ALN) for Business Education.**

As already explained, lectures and bookwork alone are not sufficient for developing people who have to take decisions in the real world (Biggs, 1999). As far as we understand, the role of this important aspect of business education will tend to be undermined in online business education. The only form of online action learning that we can envisage at this point in time is the use of case studies undertaken in virtual teams and playing virtual business games, in both cases the touch with the "real" world is lost, which is the very purpose of action learning. This is a major drawback with online business education and needs to be considered seriously. Furthermore, in the conventional learning system, students learn not only by trying to solve the problem presented in the case but also through classroom discussions with the peer group. In defending their own ideas, they acquire the ability to be more critical while also developing their communication skills. The opportunity to cultivate these skills is lost in the Asynchronous Learning System. Hence, we propose that:

*P4: Action learning in a conventional learning system is likely to lead to more effective student learning as compared to action learning in an online learning system (ALN).*

**Role of Creativity in a Conventional Learning System for Business Education.** Earlier approaches to the study of intellectual ability in schools treated it as mainly a matter of efficient acquisition of socially relevant and valued information, rapid and accurate recall of this upon demand, and the clever application of the most appropriate elements of facts already known in life. However, in his famous address in 1950, Guilford called for more emphasis on branching out, generating alternatives, and making unusual associations, which he called "divergent thinking." No doubt partly because of the title that Guilford gave his paper, divergent thinking was quickly equated with creativity, and interest focused on "creativity" versus "intelligence." The post-Guilford era, however, saw the merging of the two streams of thought in the idea that creativity should be fostered in the

classroom (Cropley, 2001). But the basic question still remains: *why foster creativity in the classroom?*

Probably the most dominant characteristic of modern life is that it is subject to unprecedented rapid change. At the level of the individual it is evident that knowledge and skills have ever-diminishing half-lives. The knowledge and skills needed in the future may not even be known at the time a person attends school or university. As a result, these institutions cannot limit themselves to the transmission of set content, techniques, and values, since these will soon be useless or even detrimental to living a full life. These institutions must also promote flexibility, openness for the new, the ability to adapt or to see new ways of doing things, and courage in the face of the unexpected. These properties are becoming increasingly necessary if people are to adapt to a changing world and will probably continue to be important throughout each person's lifetime, whereas specific skills and knowledge become rapidly obsolete. The psychological definition of creativity emphasises adaptability, so that fostering creativity can be seen as part of the preparation of students to engage in the process of life-long flexibility and adaptation rather than clinging to the already obsolescent. Finally, creativity helps people cope with the challenges of life and the resulting personal stresses and strains and is thus closely connected with mental health (Cropley, 1990). These considerations mean that the fostering of creativity in the classroom is part of educational efforts aimed at the development of individuals capable of maximizing their own self-fulfilment (Cropley, 2001).

Surveys have shown that, in theory at least, teachers overwhelmingly support creativity as something that should be fostered in the classroom. A study conducted by Feldhusen and Treffinger (1975) reported that 96% of respondents expressed this view. However in actual classroom practice, teachers often frown upon traits associated with creativity or even actively dislike characteristics such as boldness, desire for novelty, and originality.

Some teachers are particularly good at promoting students' creativity (Cropley, 1992). They provide a model of creative behavior, reinforce such behavior when pupils display it, protect creative pupils from conformity pressure, and establish a classroom climate that permits alternative solutions, tolerates constructive errors, encourages effective surprise, and does not isolate non-conformers. These teachers, among other things, emphasized creative production, showed flexibility, accepted alternative suggestions, encouraged expression of ideas and tolerated humor. They were themselves creative and had stronger personal contacts with their students. Summarizing the literature, it can be said that creativity-fostering teachers are those who encourage students to learn independently, have a cooperative, socially integrative style of teaching, do not neglect mastery of factual knowledge, tolerate sensible or bold errors, promote self-evaluation, take questions seriously, offer opportunities to work with varied materials under different condi-

tions, help students learn to cope with frustration and failure, and reward courage as much as being right.

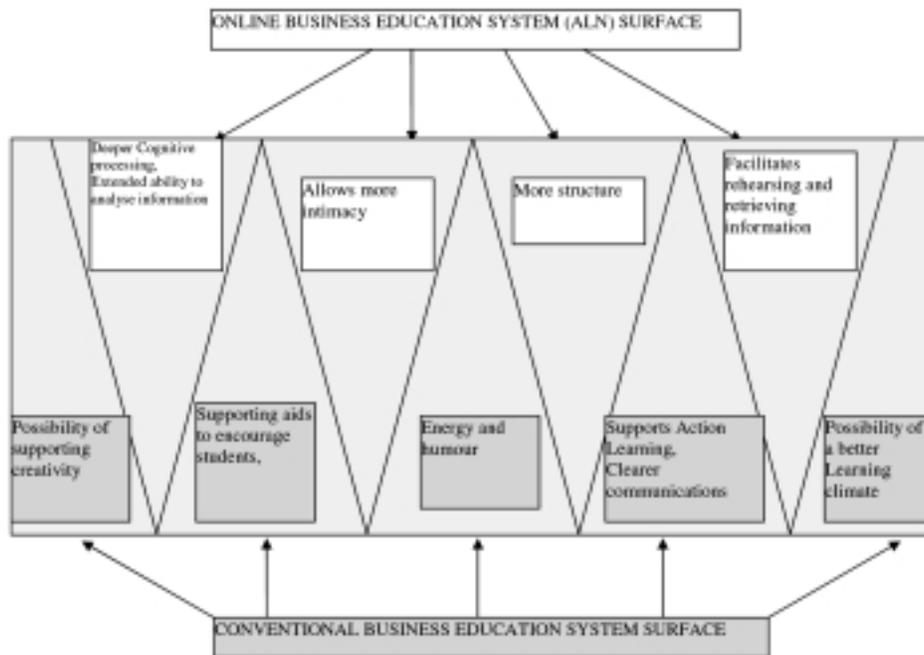
Having seen the important role that a teacher plays in fostering creativity, the question that we raise is: *Does the online learning system (ALN) influence the creativity of students so as to create superior student learning as compared to the student learning resulting from the creativity of students in the conventional learning system?* This question is addressed next.

**Role of Creativity in an Online Learning System for Business Education.** As mentioned earlier, creativity calls for more emphasis on branching out, generating alternatives and making unusual associations, which Guilford had called divergent thinking. We would like to make the same argument used earlier that it is essential to foster creativity in order to survive the fast pace of change in today's world. But, we would like to draw attention to the fact that one of the major risks with using an online education system is that, due to its inherent advantages, students may lose touch with conventional methods of education. In other words, overcoming the drawbacks of the conventional educational system through the use of online education systems may lead future students to become addicted to it, thereby diminishing their adaptability and flexibility which was the very purpose of its creation. This would curtail creativity in the long term. At Groupe ESC Rennes, we have often observed this with some of the visiting American students on our campus, who find it difficult to adapt to a written form of final examination, because on their campuses they are used to answering the final exam through an online system. The American students also tend to make a lot more errors in written English than the other students, because being addicted to using the computerized way of studying has made them lose skills that the conventional educational system develops and sustains. Hence, we propose that:

*P5: Creativity efforts in a conventional learning system are likely to lead to superior student learning as compared to creativity efforts in an online learning system (ALN).*

After having compared the online and traditional education system over several elements that play a very important role in effective education, we now finally attempt to answer the question raised at the beginning of this paper: *Which of the three processes in business education leads to optimum student learning: conventional learning processes, online learning processes or joint conventional and online learning processes?*

**Combining Online Learning System (ALN) and Conventional Learning System.** Based on the detailed comparison of conventional and online business education that we provided in the previous sections, we have deduced an optimum degree of integration which is provided schematically in Figure 1. We have termed it the "Integrated Learning



**Figure 1:** The Integrated Learning Model (Source: Patel and Patel, 2006)

Model.” The model suggests that if aspects of ALNs such as deeper cognitive processing, extended analytical abilities, intimacy between instructor and student, better course structure, and ease of rehearsing and retrieving information could be coupled with aspects of conventional business education such as creativity, support aids, possibility of generating energy and humour, clearer communication, and the possibility of a better learning climate; then an optimum learning climate or environment could be created for business students. This model is supported theoretically by the concept of “complementarities” which has been shown by Amit and Zott (2001) to lead to value creation in e-business. In this model, we show the existence of complementarities between the online and conventional learning system. Amit and Zott (2001) clarify that complementarities are present whenever having a bundle of goods or services together provides more value than the total value of having each of the goods separately.

Furthermore, a partial integration as depicted in the model could be an answer to the anxieties regarding the cost involved in setting up an online business school. This solution might not only keep the cost factor under control, it might also limit the administrative workload that accompanies the creation of an online business school. Based on the discussion presented here, we propose that:

*P6: The Integrated Learning Model leads to optimum student learning in business education.*

The next section provides illustrations to support these propositions through the case analysis of a French business school, Groupe ESC Rennes, which uses the integrated learning model for its conventional offline students. Groupe ESC Rennes (Rennes International School of Business) is one of the 24 “Grandes Ecoles” in France. This discussion is followed by examples of business schools that use the integrated learning model for their online/distance learning programs.

### **CASE STUDY ANALYSIS OF GROUPE ESC RENNES**

We evaluated Groupe ESC Rennes on the five components of the learning system through the method of participation observation. Each component is discussed in detail in the following sections.

#### **Pedagogical Role of the Instructor**

In general, faculty at Groupe ESC Rennes find that supporting in-class teaching with online discussion forums facilitates more in-depth discussions and hence in-depth learning. It also facilitates participation for students who are shy in the classroom or those who feel inhibited due to limited language skills. The overall outcome is more multi-way learning rather than the uni-directional learning that takes place in a conventional classroom. Not only the students, but also the professors found themselves engaged in a deeper level of mental processing as they edited both questions and responses to the questions. Learning therefore took place at a deeper cognitive level for both faculty and students by moving from the conventional to the integrated learning model. This observation suggests that the integrated learning model accentuates the cognitive role of the instructor and leads to better learning outcomes.

This argument is well-illustrated through the example of the Organizational Behaviour course taught in the MBA program at Groupe ESC Rennes. Most academicians would acknowledge that in an MBA program, group discussions and debates are very helpful to stimulate in-class discussions and also to develop the students’ ability to argue scientifically. However, students who are shy by nature or who experience a language drawback are often not able to be as vocal as their more outspoken or native speaker counterparts. This situation could, if the instructor is not sensitive enough, lead to a bias against the shy students and those that suffer from a language drawback. However, the online platform used for the Organizational Behaviour module for the MBA program run at Groupe ESC Rennes overcame this limitation of conventional learning by allowing the shy students to express themselves online although they would not do so in class. It was observed that a lot of students who would not share ideas openly in class for fear of being ridiculed due to inferior language skills, notably Chinese students, took the maximum advantage of the online platform. They used the medium to share ideas,

pose questions, and effectively communicate with the group and the instructor, thereby adding value to the teaching/learning climate and enriching the experience of learning from peers, not merely from the instructor.

Furthermore, regarding the managerial role of the instructor, faculty at Groupe ESC Rennes found that they required much more organizing and planning in order to post their material online as compared to the spontaneous discussions of the conventional classroom. Since Groupe ESC Rennes has implemented the integrated learning model only for one academic year, it is not clear if the impact of the “leading” role of the instructor had a positive or negative effect on students’ motivation. In the theoretical framework, Coppola et al. (2002) expect a positive link between leading and motivation of students. To quote the Organizational Behaviour course instructor for the MBA program, *“The integrated teaching method required a major effort at organizing the teaching material and also investing time and energy in mastering some of the technical intricacies of using this new mode of education.”* In order to facilitate interaction between the faculty members and the more technically-qualified information technology department of the school, the management of the school appointed two faculty members who were well-versed with online education platforms as change and mediating agents.

There are claims in the literature that online education sometimes results in misunderstandings, which could be cleared through telephone conversations (Coppola et al., 2002). We at Groupe ESC Rennes have not experienced this phenomenon as yet, because we did not completely replace the instructor by the online medium. The students still saw their instructor for two hours per week in the Bachelor of Arts program and for three hours in the MBA program. Thus, the use of the integrated learning model allowed for more effective one-on-one interaction between the instructor and the student within and outside of the classroom.

### **Motivation of Students**

Groupe ESC Rennes, as discussed before, did not replace the instructor with the online platform. So, the person-to-person interaction between the instructor and the student, which influences the motivational level of the students, was not eliminated. If anything, the face-to-face interaction was further supported by the instructor’s accessibility through the online platform. We found that the feeling that the instructor was available to answer their queries even after classroom hours did, in fact, improve the motivational level of the students.

This is very evident from some of the student evaluations obtained for the Marketing Strategy course in the Bachelors of Arts program. As one student stated on the course evaluation sheet, *“The instructor was very supportive. I found the online material very useful, especially the instructor’s weekly hints for the case study analysis.”* When we spoke to the

course instructor about this feedback, he informed us that the case study analysis formed part of the continuous assessment of the course. Considering that the instructor wanted this to be a formative learning experience, he posted weekly hints to enable the students to better analyze the cases. This practice provided a rich learning experience to the students, because instead of feeling that they were being judged, they felt that the instructor was supporting them in their learning process and then evaluating them for the work done. Another student reported, *“The instructor was always available to the students and promptly replied to any query posted on the online platform.”* This comment from the student is interesting because, although the instructor’s office hours remained the same as before, the student perceived him to be more available to the students, due to the connectivity that the online media provides. Both the quotations provided above hint at the positive impact of the online platform on student motivation. The instructor’s use of the online platform to support formative learning among students and the students’ perception of the ready availability of the instructor even outside the class led to a high level of student motivation.

### **Teaching/Learning Environment**

We state in the theoretical framework that instructors, like institutions themselves, create a learning climate through formal and informal interactions with students. The proposition regarding the teaching/learning environment (P3) suggests that even if the structure of the course material on the online platform becomes more formal and structured, the instructor can still generate and sustain a certain teaching/learning climate with the combination of the online platform and the conventional classroom. This can be seen in the case of Groupe ESC Rennes where the instructor of the Organizational Behaviour module in the MBA program often used a very informal and personalized style on the online message board. Also, in the example of the Marketing Strategy course, the students felt supported in their learning process through the hints for group presentations posted every week, which implied that they were not being taught only to be tested or judged, but so as to encourage in-depth learning. When we discussed this with the instructor of the course, he informed us that the weekly hints proved to be so useful to the students in their learning process that, if during a particular week, the instructor got delayed in posting the hints on the online platform, he would receive queries from students reminding him of the same, even those students who were not being evaluated for the case study analysis during that particular week. This interesting observation made by the instructor suggests that students were deeply involved in the process of knowledge creation, although they were not always obliged to do so. This observation hints at the development of a positive teaching/learning environment that extended beyond the physical classroom for this course.

Furthermore, the extensive use of online forums for discussions in the Marketing Strategy course encouraged the Theory Y (McGregor, 1960) kind of classroom environment, which was further accentuated by multi-directional learning: learning from the instructor, from the group members, from the peer group, from the rest of the classmates, and from the additional reading posted on the online platform. This multi-directional learning process, in effect, decreased the “control” that the instructor exercised on the learning outcomes of the students, thereby preventing a Theory X kind of classroom environment from developing. Furthermore, as Biggs (1999) suggests, knowing where you are going and getting feedback telling you how well you are progressing heightens expectations of success, which improves the level of motivation. That the online platform used in the Organizational Behaviour module allowed for instantaneous feedback on the formative quizzes, which would not have been feasible in the absence of the online platform, helped improve the students’ level of motivation at the best, and gave them an insight into their subject-matter expertise at the worst. Thus, in the case of Groupe ESC Rennes, we have seen that the integrated learning model improved the overall teaching/learning climate in the classroom, thereby improving the students’ motivation and leading to optimum learning outcomes.

### **Role of Action Learning in Business Education**

The theoretical framework points out that action learning will tend to be undermined in purely online business education. Groupe ESC Rennes anticipated this drawback of purely online learning and hence continued to use in-class case discussions and simulations so as to facilitate action learning. In some courses, such as the International Human Resource Management course taught to students of the Bachelor of Arts program, the online platform was effectively used by the instructors to provide tips to students for the simulations and role plays that they were required to present in class. The students not only enjoyed this aspect of action learning, but also saw this regular input from the instructors as a sign of their enthusiasm and their willingness to be continuously involved with student learning. This example hints at another advantage of the integrated learning model over the Asynchronous Learning Networks.

### **Role of Creativity in Business Education**

Creativity means divergent thinking (Guilford, 1950). Divergent thinking was retained at Groupe ESC Rennes by structuring analyses of cases in the form of open offline spontaneous class discussion and debate among students. These class discussions were supplemented by broad hints on the online forum that suggested the different possible approaches to analyze the case. Combining online and conventional media ensured that students had sufficient guidance in thinking, but their creative, divergent thinking was

not curtailed. Thus, the case of Groupe ESC Rennes suggests that the integrated learning model sustains and encourages divergent thinking among students, thereby leading to optimum learning outcomes.

Our discussion so far has focused on providing illustrations from our experiences in Groupe ESC Rennes to support the arguments in the earlier part of this article. In the following section, we provide a brief example of the online teaching experiences of another business school, which, like Groupe ESC Rennes, has adopted a combination of the conventional learning system and the online learning system.

### **Example of Another Business School**

The Open University (OU) of the UK is one of the leading universities that specializes in distance learning programs. We conducted informal interviews with four undergraduate students registered in the distance learning program of the OU. These students were based in France but they informed us that the OU has coordinators based in each country. They can be contacted physically or by telephone. Along with the provision of online services, they are required to attend seminars on a quarterly basis. While the mix of online and offline education changes in different courses, the students felt that the combination helped them to get adequate support as well as induce self-learning. As one student based on France informed us, *“The combination of the online and conventional learning methods suits us well because I can learn at my convenience and at my pace. I enjoy this because I can organize my time to match other courses that I am following in France and a part-time job that I have. Yet, when I find myself in a fix, I can write to the tutor either through a private e-mail or through the forum. Usually tutors are prompt in replying to students. We also have face-to-face tutorials about three times a year, either in Paris or in Brussels. The discussions in the tutorials are in line with the discussions on the forum. These sessions help me to get to know the other students and create a sense of being part of a community. It also helps to see the tutor you have been interacting with throughout the year.”*

The above quote indicates that the flexibility allowed for by the combination of online and conventional learning systems is motivating for this student. She seems to appreciate the responsiveness of the instructor to her queries. The occasional face-to-face tutorials seem to encourage a sense of being part of a community for this student, thereby contributing to a positive teaching/learning environment.

### **CONCLUSION**

We used the case study of Groupe ESC Rennes to explore a joint model of online and conventional learning systems. Although this case study simply provides support for our arguments rather than providing concrete conclusions and more data need to be collected from other business schools before any concrete advice may be given to academicians and

practitioners, the highlight of this article is that through the *integrated learning model*, we provide a tool for optimizing student learning outcomes that does not already exist. One of the directions that future researchers might want to take is to empirically test the *integrated learning model* that we have proposed and described.

Our review of the literature suggests that there are several differences between online and conventional learning systems in business education and that there are advantages and disadvantages in using each kind of learning system. Hence, we have proposed an *integrated learning model* in order to achieve optimum learning in the student community. As suggested through the case study of one French business school, Groupe ESC Rennes, and a British University, i.e., the Open University, conventional and online business education may not necessarily be contradictory or competitive to each other. On the contrary, they may complement each other to produce an optimum learning environment, which should be the goal of every business school. Our integrated learning model might be useful to business schools which are at the two extreme polarities, i.e., those that are purely conventional in their teaching styles and those that have chosen a completely online learning system. Each of these types might need to move away from the polarities and towards the integrated learning model so as to optimize student learning. A conventional university can do this by creating a joint learning process for its traditional offline students. On the other hand, a purely online university can move towards the integrated learning model by creating offline learning centers in different geographical zones in order to address the needs of students enrolled in distance learning programs.

## REFERENCES

- AACSB. "Quality Issues in Distance Learning," Task Force Report, St. Louis, Missouri, 1999.
- Allen, M., Mabry, E., Mattrey, M., Bourhis, J., Titsworth, S. and Burrell, N. "Evaluating the Effectiveness of Distance Learning: A Comparison Using Meta-Analysis," *Journal of Communication* (54:3), 2004, pp. 402–421.
- Amit, R. and Zott, C. "Value Creation in E-Business," *Strategic Management Journal* (22), 2001, pp. 493–520.
- Aviv, R. "Educational Performance of ALN via Content Analysis," *Journal of Asynchronous Learning Networks* (4:2), 2000, pp. 53–72.
- Benbunan-Fich, R. and Hiltz, S.R. "Impacts of Asynchronous Learning Networks on Individual and Group Solving: A Field Experiment," *Group Decision and Negotiation* (8), 1999, pp. 409–426.
- Biggs, J. *Teaching for Quality Learning at University*, SRHE and Open University Press, 1999.
- Coppola, N.W., Hiltz, S.R., and Rotter, N.G. "Becoming a Virtual Professor: Pedagogical Roles and Asynchronous Learning Networks," *Journal of Management Information Systems* (18: 4), 2002, pp. 169–189.
- Chang, T.T. and Lim, J. "Cross-cultural Communication and Social Presence in Asynchronous Learning Process," *e-Service Journal* (1:3), 2002, pp. 83–105.
- Colarelli, O. "Market Learning and Radical Innovation: A Cross Case Comparison of Eight Radical Innovation Projects," *Journal of Product Innovation Management* (15:2), 1998, pp. 151–166.
- Cropley, A.J. "Creativity and Mental Health in Everyday Life," *Creativity Research Journal* (3), 1990, pp. 167–78.

- Cropley, A.J. *More Ways than One: Fostering Creativity in the Classroom*, Ablex, Norwood, New Jersey, 1992.
- Cropley, A.J. *Creativity in Education and Learning: A Guide for Teachers and Educators*, Kogan Page, 2001.
- Entwistle, N., Kozeki, B., and Tait, H. "Pupils' Perception of School and Teachers—II: Relationships with Motivations and Approaches to Learning," *British Journal of Educational Psychology* (59), 1989, pp. 340–350.
- Feather, N. *Expectations and Actions*, Erlbaum, Hillsdale, New Jersey, 1982.
- Feldhusen, J.F. and Treffinger, D.J. "Teachers' Attitudes and Practices in Teaching Creativity and Problem Solving to Economically Disadvantaged and Minority Children," *Psychological Reports* (37), 1975, pp. 1161–1162.
- Fuslier, M. and Durlabhji, S. "No Downturn Here: Tracking E-Business Programs in Higher Education," *Decision Sciences Journal of Innovative Education* (1:1), 2003, pp. 73–98.
- Garcia, R. and Calantone, R. "A Critical Look at Technological Innovation Typology and Innovativeness Terminology: A Literature Review," *The Journal of Product Innovation Management* (19), 2002, 110–132.
- Gulati, R. and Garino, J. "Get the Right Mix of Bricks and Clicks," *Harvard Business Review*, May-June 2000, pp. 13.
- Guilford, J.P. "Creativity," *American Psychologist* (5), 1950, pp. 444–54.
- Hattie, J. and Watkins, D. "Preferred Classroom Environment and Approach to Learning," *British Journal of Educational Psychology* (58), 1988, pp. 345–9.
- Morse, K. "Does One Size Fit All? Exploring Asynchronous Learning in a Multicultural Environment," *Journal of Asynchronous Learning Networks* 7(1), February 2003, pp. 37–55.
- McGregor, D. *The Human Side of Enterprise*, McGraw-Hill, New York, 1960.
- Nulden, U. "Thematic Modules in an Asynchronous Learning Network: A Scandinavian Perspective on the Design of Introductory Courses," *Group Decision and Negotiation* (8), 1999, pp. 391–408.
- Peltier, J.W., Drago, W., and Schibrowsky, J.A. "Virtual Communities and the Assessment of Online Marketing Education," *Journal of Marketing Education* (25:3), 2003, pp. 260–276.
- Vogel, D.R., Lou, D., van Eekhout, M., van Genuchten, M., Verveen, S., and Adams, T. "Distributed Experiential Learning: The Hong Kong-Netherlands Project," in *Proceedings of the Thirty Third Annual Hawaii International Conference on Systems Science*, 2000, pp. 1–9.
- Webster, J. and Hackley, P. "Teaching Effectiveness in Technology-Mediated Distance Learning," *Academy of Management Journal* (40:6), 1997, pp. 1282–1309.
- Wechsler, A. "Online Learning Lasts an Ever-Widening Net," *Times Union*, 2002, March 3.
- Wegereif, R. "The Social Dimension of Asynchronous Learning Networks," *Journal of Asynchronous Learning Networks* (2:1), 1998, pp. 34–49.

Copyright of *e-Service Journal* is the property of Indiana University Press and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.