

MAXIMIZING E-LEARNING ROI: IDENTIFYING SUCCESSFUL ONLINE LEARNERS

Margaret Ohara, East Carolina University
oharam@mail.ecu.edu

ABSTRACT

Businesses today face many dilemmas, one of which is the high cost of training. When employees are widely dispersed, gathering them in one location or sending instructors to remote sites accounts for a significant portion of the training cost. Online, Internet-based classes are often seen as a possible solution to this problem. While the virtual classroom does eliminate the need for travel, thus lowering cost, other considerations arise. One of these is motivating students to ensure successful course completion. While motivating students in the corporate arena is not as significant a task as it typically is in the university setting, it is still a critical facet of successful online learning. Moreover, some students, despite motivation, are less likely to be successful online learners than others, and identifying such employees at the start would prove beneficial. While some studies have indicated characteristics of successful online learners, little research exists detailing how to identify those people before they become students in a class. In this paper, a method for doing so is suggested.

INTRODUCTION

Businesses today face many dilemmas, one of which is the high cost of training employees, especially when those employees are dispersed across large geographic areas. The costs associated with gathering employees in one location for instruction, or sending instructors to various remote sites are staggering, and education and training in all forms accounts for 9% of the GNP, second only to healthcare (Clarke and Hermens, 2001).

A PriceWaterhouseCoopers survey of large companies indicates that 70% of them cite lack of trained employees as a major barrier to growth (Clarke and Hermens, 2001). As the world becomes more of a knowledge-based society, knowledge becomes the main source for competitive advantage. Still, in the larger firms, training budgets are dwindling in today's economy and many HR executives are being challenged to find more efficient, yet still effective, methods of delivering instruction (Groves, 2002). Internet-based training is seen as a way of doing so, and such initiatives are increasingly seen as a way to reduce costs. In March 2000, an IDC report projected that spending on Internet-based training would reach \$11.4 billion by 2003, an 83% annual growth rate (Leoalliance, 2004).

Traditional face-to-face on-site training is decreasing for other reasons as well. In the post-911 world, neither instructors nor employees are as willing to travel as they once were. Employees are more spread out, and Internet-based learning is available anytime, anywhere to anyone with Internet access. Moreover, bandwidth has increased over the last five years, thus allowing employees to work more efficiently from home.

Thus, Internet-based classes are often seen as an excellent alternative to FTF classes. Internet-based classes have been shown to be effective in reducing costs while providing effective training (Gale, 2002). While these classes do eliminate the need for travel on the part of instructors or employees, and thus lowers costs, other issues arise. These issues include: cost of course development, high band-width needed for fast data transfer and keeping online learners motivated to ensure successful course completion. While the cost of delivering Internet-based learning may be lower than traditional classes, it is not insignificant and “e-learning course completion rates are notoriously low” (ASTD – The Masie Center, 2001, page 7).

Developers are finding that putting together an online course is not a trivial matter. While motivating online learners in the corporate arena is not as critical an issue as it typically is in the university setting, qualities such as self-discipline, the ability to work independently, and perseverance are still important. To avoid spending money on courses for online learners unlikely to complete them, businesses could benefit from a method to identify employees likely to be successful in such a setting – those who can work independently, are disciplined and can motivate themselves to persevere when difficulties arise, among other things. Studies have shown these characteristics are typical of entrepreneurs as well.

In this paper, Internet-based classes and instructional material delivered using information technology will be collectively referred to as e-learning, and those employees taking courses in this manner will be called online learners. The paper proceeds as follows. The qualities of successful online learners are examined first, followed by an exploration of entrepreneurial characteristics. Next, successful online learners are compared to successful entrepreneurs. These two seemingly diverse groups share similar characteristics. Then, a survey instrument that measures entrepreneurial attitudes is discussed and its use as a predictor of online learning success is proposed. The paper concludes with some suggestions for future research.

WHAT MAKES A SUCCESSFUL ONLINE LEARNER?

Some universities that offer degree programs in an e-learning format have websites with questionnaires or checklists for potential online learners to work through before signing up for e-learning classes. These include: Do I work independently? Am I confident in my academic abilities? Am I computer literate? Am I self-motivated? (For example sites, see e.g., <http://www.cu-portland.edu/online/ready.cfm> or <http://www.bt.wp.cc.nc.us/online/DLstudnt.html>). Although e-learning is becoming increasingly popular, there is surprisingly little formal research as to what makes a successful online learner.

Some difficulty in studying online learners arises because of the diversity of the population. There is truly no typical online learner. In a university setting, online learners may be non-traditional students – older, more independent – or they may be standard-age undergraduates trying something new. In a business setting, online learners may be those employees who are limited to taking classes in an online setting because of personal or professional considerations, or they may be restricted to a specific geographic area due to organizational cost cutting measures. And, as in the university setting, they may simply be employees interested in trying a “new way” of learning. In any case, the research that does exist suggests that individuals with a high degree of self-

discipline, who can manage their time well and who have set clear, reasonable goals for themselves are likely to be successful.

Other characteristics of successful online learners have emerged anecdotally during three years of teaching an online MBA course in a university setting (O'Hara, forthcoming). Student satisfaction – as identified through comments after the class ends, is generally higher for those students who have immersed themselves in the class by participating in scheduled and informal online chats and maintaining a steady stream of comments in discussion forums. Reading email often and responding to questions asked is another indicator of satisfaction with the online learning experience.

Sending a report to the class file exchange is fraught with uncertainty for some students, and some seem unable or unwilling to deal with such. Other students doubt both the technology and their ability to use it properly, and it takes reassurance from the instructor before they begin to trust the technology. Some students never learn to trust and never reduce their uncertainty with the technology. One graduate student who dropped the class stated: "I can't get the attachment to open so I will just drop the class."

Another characteristic of those students who successfully complete the online course is a willingness to try new things. Virtual team meetings, informal chatting and enhanced use of email are three areas that are new to many students. Successful online learners are among the first to attempt using the new technologies. They "ping" the instructor early in the semester, and they typically lead their team members through setting up chat sessions.

Finally, successful online learners do not give up easily. They tend to persevere in the face of obstacles and they do not ruminate on their failures for long. A computer crash? No problem, they will be back on line in a couple of hours. Childbirth? Take one day off and attend the virtual chat the next day! A problem significant enough for some students to drop the class only serves to spur the successful online learner on to work harder. General characteristics of successful online learners that emerged anecdotally and in the literature are summarized in Table 1. Interestingly, the literature shows that entrepreneurs share many of these same characteristics.

Characteristics of Successful Online Learners	Research Study
Being engaged (Full participation)	
Ability to deal with uncertainty and ambiguity	
Willingness to try new things	
Rebound after difficulties	
Internal Locus of Control	(Cooper, 1990; Altmann & Arambasich, 1982; Parker 1999)
Experience in online learning	(Ehrman, 1990)

Table 1: Characteristics of Successful Online Learners

WHAT MAKES A SUCCESSFUL ENTREPRENEUR?

Numerous studies of entrepreneurship exist, yet there is little agreement as to what constitutes an entrepreneur. Even more difficult to establish is what makes an entrepreneur successful (Koh, 1996).

Cunningham and Lisher (1991) suggest that entrepreneurship might be viewed as an iterative process of evaluating one's personal values, identifying opportunities, planning and acting and then reassessing. A full-scale discussion of the various schools of thought is beyond the scope of this paper (see Robinson, et al 1991 for a more complete review of the literature).

Entrepreneurs are often classified as innovative and as constantly looking for new opportunities (Freeman & Varey, 1997). One study showed that entrepreneurs are more intuitive than members of the general population and middle or junior managers but similar in intuition levels to senior managers (Allinson, et al, 2000). Other characteristics are tolerance for ambiguity and uncertainty. Entrepreneurs are also self-confident (Koh, 1996). Characteristics of entrepreneurs that emerged from a literature review are summarized in Table 2.

Characteristics of Entrepreneurs	Research Study
Internal locus of control	Koh, 1996; Brockhaus, 1982
Innovative	Freeman & Varey, 1997
Ability to deal with uncertainty	Koh; Freeman & Varey, 1997
Willingness to accept risk	Freeman & Varey, 1997; Kuemmerle, 2002
Constantly looking for new opportunities	Freeman & Varey, 1997; Kuemmerle, 2002
Intuitive	Bottles, 2002; Allinson et al, 2000
Willing to skirt boundaries of propriety	Kuemmerle, 2002
Patiently work toward a goal	Kuemmerle, 2002
Rebound from setbacks	Reiss, 2003
Ability to focus on task	Bottles, 2002
Deep sense of trust in oneself (self-efficacy)	Bottles, 2002; Koh, 1995
Talent for networking	Bottles, 2002
Need for control	Koh 1996

Table 2: Entrepreneur Characteristics from the Literature
(adapted from O'Hara, forthcoming)

COMMON CHARACTERISTICS

It is evident that successful distance learners and entrepreneurs share several characteristics. An internal locus of control is apparent in both entrepreneurs and successful online students. Other characteristics of students can be mapped to entrepreneurial characteristics as well. While entrepreneurs and online learners do differ in some respects, the many factors they have in common are summarized in Table 3.

Characteristics of Entrepreneurs	Characteristics of Distance Learners
Internal locus of control	Internal locus of control
Innovative	Willingness to try new things
Ability to deal with uncertainty and ambiguity	Ability to deal with uncertainty and ambiguity
Willingness to accept risk	Willingness to try new things
Constantly looking for new opportunities	Willingness to try new things
Willing to skirt boundaries of propriety	Willingness to try new things
Patiently work toward a goal	Patiently work toward a goal
Rebound from setbacks	Rebound after difficulties
Life is viewed as dynamic	Willingness to try new things
Ability to focus on task	Time
Deep sense of trust in oneself (self-efficacy)	Belief in oneself; self-confidence
Talent for networking	Being engaged (Full participation)

Table 3: Comparison of Entrepreneurs and Successful Distance Learners
(from O'Hara, forthcoming)

FINDING THE RIGHT STUDENTS

Given the investment that many businesses make in online learning, a method for identifying those students likely to be successful in completing a course might prove beneficial. Since entrepreneurs and successful online learners share many characteristics, an instrument that measures entrepreneurial attitudes might be a useful student selection tool, especially when multiple modes of course delivery exist. One possible instrument is the Entrepreneurial Attitude Orientation (Robinson, et al, 1991).

The Entrepreneurial Attitude Orientation (EAO) is a theoretically well grounded survey instrument. The instrument's reliability and validity were well documented, and the instrument has been used in pre- and post- test studies to determine the effect of various interventions on graduate students' attitude toward entrepreneurship (Kavan and O'Hara, 2003).

The EAO views attitude as a combination of reactions to an object along three dimensions -- affect, cognition, and conation. Affect is the positive or negative feeling one has about a situation. Conation refers to one's behavior in a situation, and cognition is the thoughts or beliefs one has. The EAO measures attitude across four constructs that previous research has identified as distinguishing entrepreneurs from others (Robinson et al, 1991). These constructs are self-esteem, personal control, innovation, and the need for achievement. It provides a composite score based upon these constructs.

Employees considering an online course could take the EAO and, based on the score, opt for the online version of a class or wait for a face-to-face opportunity. When no face-to-face opportunity exists, students would at least be aware of the potential pitfalls they face in the online version of the class, and perhaps prepare better for them.

CONCLUSION

This paper has demonstrated the link between the attitudes and perspectives of entrepreneurs and successful online learners, and suggested a method for predicting whether an employee will achieve success in an online course. More research is needed in this area to determine if the EAO would serve as a useful indicator of online learning success. One possible future research project would be to pre-test students enrolled in online classes and then correlate their scores on the EAO to the grades they receive in the class. Another project might be to survey online course dropouts to determine if their scores were significantly lower than those who finish the class. This would be difficult in a university setting since dropouts might have left the school, but it is more feasible in the corporate world since employees who drop a class would not necessarily leave the firm.

Businesses are spending millions annually to train their employees, and the portion of training budgets being spent on e-learning continues to rise. Given these facts, and the ever-present reality of cost-cutting initiatives that abound in business, every avenue to identify successful online learners at the outset of training should be explored.

REFERENCES

Available upon request from the author