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## Dimensions of Student Success in Online Learning

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**Abstract** Online learning has become a popular method of education. This transition is not a trivial matter, and while faculty members may have support in making this transition in their teaching style and methods, they may know little about how to assist students in succeeding in a new learning environment. Similarly, students may not be prepared to tackle the new demands put upon them. This research sought to identify the characteristics and qualifications of successful online learners, by examining primary screening documents from institutions, mapping these dimensions to the literature base, and weaving personal research projects through the resulting information.

### 1. INTRODUCTION

Online learning has undergone rapid development. We know the stated reasons for growth in this area: public media have raised individuals' expectations, the digital economy has created a demand for technical expertise, and adults are demanding greater flexibility and control over their learning. Moreover, business and industry have begun to challenge the traditional models of learning and teaching, through corporate universities, for-profit institutions, and other less formal opportunities.

Educational institutions are responding rapidly to learners' demands for 'anytime and anywhere' education by devoting substantial resources to the development of online distance learning. Throughout the world, traditional

and non-traditional individuals are taking advantage of these offerings. However, the transition to this online environment is not a trivial matter, and the challenge is to understand the relationships between the user and the technology, the instructor and the participants, and the relationships among the participants (Gibbs 1998, Palloff and Pratt 1999, Schrum 1998). Faculty members may have support in recreating their courses for digital media, yet they may know little about how to assist students in succeeding in a new learning environment and to adapting their teaching style and methods.

In an effort to provide information to assist faculty members to understand the demands their students face in online learning, and to design effective online environments to support these new challenges, this research sought to first identify characteristics and qualifications of successful online learners. Next, data were collected from successful online teachers to investigate strategies they have found useful to ensure student success.

## **2. PERSPECTIVES**

Traditional distance learning environments were based on correspondence through passive media (paper, audio and video broadcast) and were most often conducted as independent experiences, with each learner corresponding only with the instructor. Recent developments in technology and access have offered organisations and universities the opportunity to improve these environments through increased communication, interactivity among participants, and incorporation of collaborative pedagogical models, specifically through electronic networks and groupware (Gerencher 1998, Gibbs 1998, Schrum 1998). Other advantages to using this type of distance learning are the potential combination of instantaneous (synchronous) and delayed (asynchronous) communication, access to and from geographically isolated communities, multiple participation within activities, and cultural sharing of diversity and recognition of similarities among the people of our world.

In this transformed model of distance learning, learners expect interactivity and close to 'traditional' classroom based education. The demand for online courses, enhanced by the ease of access, media attention, and interest from the private sector, has accelerated the rush toward online learning activities. Some of the courses are traditional subject matter courses, often undergraduate, while others are geared more to ongoing professional work activity. These include informal courses, professional development tutorials, and even full degree programs; however, much uncertainty exists about the conditions that are essential to create a successful experience for educators and learners.

Development of an online educational environment is a complex task. Faculty members have had an especially difficult time changing the ways in which they teach, regardless of these educators' own personal use of electronic media (Candiotti and Clarke 1998). In an electronic environment the role of faculty changes in many ways, and in particular, each instructor must give up some control of the classroom environment. Faculty members are forced to develop and design their activities and interactions in new ways, and may be frustrated without the ability to recognise when students are puzzled (Schrum and Berge 1998). Kember (1995) urged designers to work toward deep learning, which requires moving away from excessive assignments and shallow assessments, and toward some individual freedom in activities. These challenges go far beyond the need to be comfortable with the reliance on technology to support their courses. Wiesenberg and Hutton (1996) identified three major challenges for the designer to consider: increased time for delivery of the course (they estimate two or three times what is necessary for a traditional course), creating a sense of online community, and encouraging students to become independent learners. They also reported fewer interactions than expected from participants of an online course. These issues all have implications for faculty members and students in an online environment.

### **3. METHODS**

These data derived from a variety of sources. To begin, an examination was made of over seventy institutions from around the globe that currently offer online learning opportunities. While many more institutions do offer online courses, only those that appeared to have an educational focus, and other components that seem essential for post-secondary education (library facilities, student support personnel, etc.) were considered. The original group was narrowed again, so that only those that provided potential students the opportunity to investigate their own suitability for this environment, through a substantive needs-assessment, which included advanced organisers, surveys, or other materials designed to provide potential students with necessary information were ultimately included.

A document analysis was then completed on those needs assessment or pre-enrolment instruments. Standard document analysis techniques were employed to compare the similarities, distinguish the areas of divergence, and identify the various functions of presentation, scoring, feedback, and supporting documentation (Miles and Huberman 1984). After the analysis was completed, a substantial literature review was undertaken, to verify the practical field analysis and to identify areas or characteristics that were

missing from that analysis. The literature was thus woven through the resulting characteristics of successful students.

In addition, the author has completed several research studies that investigated various perspectives of online learning (Schrum 1992, Schrum 1998, Schrum 2000, Schrum and Berge 1998). In each study, completed primarily at the author's institution, an ongoing focus of investigation was the identification of factors that influenced student success, gathered from students' perspectives. These experiences were analysed through constant comparative methods, and were woven into the material presented in this paper.

Finally, this information was aggregated and presented to experienced online educators. These individuals verified these seven characteristics, and provided rich descriptions of the ways in which they ensure student success, as related to these dimensions. These data were also analysed using constant comparative methods (Lincoln and Guba 1985).

## **4. DIMENSIONS**

Seven dimensions were found to impact the success of adults who enroll in distance learning courses and degree programs. Of course, not all dimensions are significant for each student, and only the individual will be able to determine those that are most pertinent and essential in his or her life. Moreover, while these dimensions are presented separately, in reality they do not function independently. Rather, they are interconnected, as are the pieces of a puzzle, and work together to support or challenge the online learner. The seven significant dimensions that emerged from the data included:

### **4.1 Access to tools**

The first dimension concerns tools that students must have readily available. Research has demonstrated that easy access to technology, at home and perhaps at work, is one of the most significant contributors to success in online learning environments (Bonk and Dennen 1999, Schrum 1998). Access to all these tools is essential in a convenient and timely fashion, however, any discussion of specific tools is subject to revision almost immediately. Yet it is worthwhile to create a minimum standard for hardware and software, plus peripherals. An institution can provide a highly successful way of testing the equipment by offering potential students a free mini-course to experiment with the components and also to demonstrate exactly what an online learning experience might be like.

## **4.2 Technology experience**

While having convenient access to the tools is the first step, experience using the tools for personal or work related activities is also important. More than one study has suggested that students who have little technological experience would delay learning new content while they learned the tools (Schrum 1998, Yakimovicz and Murphy 1995). Important experiences for new online learners include the ability to write documents using a word processor, printing, sending email on a regular basis, sending and receiving files via email, conducting searches through the World Wide Web, and accessing online information.

Students who are comfortable and adept at these tools will be able to solve small technical problems, such as rebooting their machine, installing software, resolving printer questions and cartridge changes, and answering simple configuration issues. They will also be able to distinguish between the problems they can solve and those problems that are not related to their individual hardware and software, and thus know when to contact the system administrator or institution to report difficulties and request assistance.

## **4.3 Learning preferences**

Students may be concerned that they might miss traditional face to face instruction. It is true that each person learns in a unique way – in general, people know the ways in which they are best able to remember a phone number or address. Some people will write it down, others will say it several times, and still others will make a rhyme out of it. Each is appropriate for the individual who uses it. It is important to recognise that when one learns off campus, individual strengths and weaknesses may be amplified (Bonk and Dennen 1999).

## **4.4 Study habits and skills**

One of the greatest benefits of learning at a distance is also one of its greatest challenges. Learners appear to appreciate the greater control over their learning, yet with that control comes substantial responsibility for completing assignments and being prepared. It may be more difficult to stay focused on those assignments so it is essential that students adopt a model of self-directed learning.

An individual's study habits play an important role in the success of that student. Learners must be able to turn off the television and concentrate on their work in a timely fashion, in order to stay on track in turning in assignments. It is fairly clear that those students who do not keep up with the

class and the work are in greater danger of dropping out. A student may need to assess his/her basic academic proficiencies, such as skimming for information, and then reading the important portions more carefully. Students also find that the act of writing demands greater reflection than speaking, and reading a textbook presents more of a challenge than reading a novel. Students will also need to be able to organise and analyse complex ideas, and be able to communicate those ideas to others.

#### **4.5 Goals and purpose**

Adults have a variety of reasons for seeking educational experiences, and these may include a mandated upgrade of skills, requirement for additional credits to maintain licensure, need to change careers, or a simple desire to gain knowledge. Realisation of these goals, however, is often subject to the strength of the motivation that drives these desires (Schrum and Benson 2000). Motivation describes the internal and external conditions that influence behaviour and is one of the most significant factors in persistence in online learning (Schrum 1998). A non-motivated student may experience difficulty in completing an online course.

#### **4.6 Lifestyle factors**

Today we all lead extremely busy lives – and many adults have obligations beyond work. Students must determine if they have 10-20 hours a week to devote to studying. They must also ascertain if they have flexibility in their schedules, or if little room exists for rearrangement. It is vital that potential learners have the full support of their family, friends, and employer. When competing demands put stress on a student, they often feel they must give up or minimise their studying to keep peace in the family (Schrum and Benson 2000). It may also be helpful for the student to find someone who has taken distance courses to act as a mentor for support and advice.

#### **4.7 Personal traits and characteristics**

A few of the dimensions have touched on the ways in which individuals study and learn, but this dimension offers a perspective on fundamental ways in which individuals actually handle their daily activities, and patterns of behavior that go far beyond school related issues. This includes questions about the way one completes daily tasks. For example, is the individual always on time for appointments, or do simple tasks get forgotten in the

midst of daily activities? Looking at our personal qualities can be somewhat difficult but it is an important step toward successful online learning. For example, Eastmond (1995) found students must be instructed in ways to take personal responsibility for becoming involved in the interactions and with their colleagues.

## **5. RESULTS OF FACULTY RESPONSE**

Recognition of the complexities of taking an online course is important, but it is not enough. One goal of distance education has always been to encourage lifelong learning, especially among those who may not fit the traditional model of a university student. If success is the goal, steps toward it must be found; therefore it was essential to identify a small group of educators who were experienced in online learning to gather suggestions to support students in online experiences.

The first task was to gather input on the seven characteristics, and ascertain if any other characteristics belonged in this group. An international group of experienced online educators, all at the post-secondary level, was contacted and invited to respond to a web-based survey. The dimensions were explained, and their input was invited. Additionally, each faculty member was invited to provide his/her own strategies and ideas of teaching in the online environment. Overwhelmingly, the responses supported the idea that the identified characteristics were indeed the ones that were essential to student success. The respondents all had stories of students surrounding those same characteristics. Some students had thought they had enough access at work, but could never get their work done, or who had no place in their home to study, or even those whose families made fun of their efforts to learn 'online'.

The responding educators suggested ways in which they alerted students to the challenges of online learning. For example, one educator mentioned the way in which assignments were broken up into smaller chunks of work, each with a deadline, criteria, and feedback. Another spoke about the way in which she puts students into virtual teams to support and provide information to each other. One professor described the way he provides clear directions for how a virtual team operates and what he means by collaboration. Others tried to let students understand that working alone can create feelings of isolation, and how to overcome that feeling.

It is important that students become self-motivated and to help them become immersed into the online community. This might require more time exploring and participating in the various components of the education site, and instructors offered that they work hard to make that site attractive and

friendly. An overwhelming amount of information can also intimidate students, so an intuitive organisation is important. Similarly, because of a lack of immediate feedback in asynchronous communication, students may feel frustrated, so educators worked hard to provide rapid response, and also to encourage all students to communicate with each other. Protocols for appropriate behaviour in online communications were often created and shared with learners.

All of the respondents described their concerns, uncertainty, and frustration when students drop out of an online program. Many took this as a personal failure, rather than as simply an individual student's decision. Although educators were aware that a students' needs analysis should precede any design of instruction, it is not always possible. One way to deal with this is to have benchmarks throughout the course to assess and accommodate the class's idiosyncrasies.

Evaluation was another challenge in the online environment, and again, these experts provided excellent suggestions. Some of them tried to have short weekly assignments so that they kept the students involved, and many of these assignments were components of a larger assignment. The goals of the evaluation were to examine the process and progress that the learners were making, rather than just examining the end products.

## **6. CONCLUSION**

Currently, many institutions of higher education are creating and promoting online education for traditional and non-traditional students, and yet little is known about how to ensure success in this environment. Faculty members are under incredible pressure to put their courses online, so it is vital that information be shared about the rewards, challenges, and impact of online learning among faculty members.

This research investigated the characteristics of successful online learners, and verified them with expert online educators. It looked carefully at the strategies these educators use to ensure success for their students, prepare them for the unique challenges of this educational environment, and make the experience as meaningful as possible. This paper presented those characteristics and strategies, as a first step in explicating the complexities of this transition, so that the pedagogy and content might drive the process instead of the technology. Only through sharing our experiences will we truly be able to encourage successful lifelong learning for all citizens.

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## BIOGRAPHY

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