

# **Building productive online learning communities**

## *investigating and interacting with internet educational genres*

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**Abstract:** With reasonable assurance we can now identify and nurture those factors that dramatically increase the likelihood of building sustainable online learning communities. Demands to learn online continue to be exerted on us through our work places and learning institutions. These pressures and opportunities are likely to continue or intensify. This project provides a variety of data from pre-service teachers, practicing educators, and college professors who all received educational online learning experiences. The findings indicate that for online educational learning communities to succeed and flourish they must incorporate appropriate content with both e-moderating and technical support. Recognition of the traps contributing to failure and the preconditions for success is imperative. An electronic online learning community is not business as usual.

## **1. INTRODUCTION**

The practice of building online learning communities has received considerable attention recently but often online learning courses simply do not deliver what they promise. Some online learning communities, however, do become vigorous learning arenas. A key component for developing an effective and vigorous online learning community is the teacher who leads the online initiative and an e-mentor for technical support especially in instances when the teacher is new to the online learning environment.

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## **2. SIGNIFICANCE OF THE STUDY**

This paper provides the reader details and descriptions of specific Internet educational genres and identifies activities likely to contribute to success or failure of online educational learning communities. Highlighted are knowledge, skills, and conceptual frameworks that successfully build online learning communities. Also included are potential pitfalls that can, at least temporarily, detract from the vitality of the online learning community.

### **2.1 Purposes and objectives**

The purpose of this study was to investigate the ‘teacher’ as the key to understanding and using technology especially as related to online learning. Teachers certainly embrace online learning with varying degrees of enthusiasm and scepticism. Teachers affect teachers. Thus, this study examines perceptions, skills, and knowledge possessed by teachers related to the use of technology especially related to online learning. Data from three different teacher genres are presented.

The objectives for this study were:

- a) to identify factors that supported the online learning community,
- b) to identify factors that detracted from the establishment or maintenance of the online learning community,
- c) to compare and contrast the differences among pre-service educators, practicing teachers (i.e., graduate students currently employed as teachers), and college faculty.

## **3. THEORETICAL FRAMEWORK**

Teachers provide the focus and are the catalyst for what occurs in the educational arena. In the traditional classroom teachers provide direct instruction, establish or change rules, help secure and present content, offer queries the help direct or enlighten, and assess student efforts and successes. Teachers using technology have similar responsibilities. According to Walker (2000) teachers should organize knowledge, build lessons on previously acquired knowledge and experiences, encourage the use of problem-solving strategies, and engage in reflective analysis. The differences between the traditional teacher and one who teaches online is the understanding and use of technology media. This approach to understanding

the teaching learning interaction focuses mainly on the teacher as the architect and builder.

Brooks (1999), taking another approach, suggests that curriculum should be examined to determine how technology fits. Using technology lenses she asks us to identify content that is technology neutral, technology driven, technology enhanced, and technology enabled. Although her major emphasis is curriculum, she always returns her attention to the teacher as the author and driver of the curriculum.

Salmon (2000) identifies the teacher in the role as e-moderator as the key ingredient for effective teaching and learning online. She describes how teachers must motivate students so they recognize that they are required to provide careful and thoughtful support so peers will cultivate their technical confidence and recognize the value of e-learning and the learning community. A critical role for the teacher is to help their students learn the benefits of online learning communities. Each participant will 1) identify with another participant/s, 2) establish a social and cultural connection to the group, and 3) develop a sense of purpose for participating and learning online. Only then will students begin to appreciate the speed and responsiveness of online exchanges.

Some may become worried about possible informational overload. Rich content, social connections, and shared information are realized by most participants. New social skills appear. Much like the traditional classroom, the teacher must remain vigilant of isolates and take action when students' work, participation profiles, or other indicators turn negative for a prolonged time.

As students begin to interact their ways of interaction begin to become what Salmon calls more engaging ways. The informal back channels of communication and information sharing are now an important aspect of the online community (Schlager, Fusco, and Schank, 1999). The online community is held together by the mutually derived culture of the participants. Teachers and moderators should consider sitting behind the curtain.

Finally, the students themselves become educationally liberated and empowered to establish their own online learning communities. Some may move to change and thus evolve the purposes and goals of the online community. This in fact is healthy and indicates that the online community is living. Others may join or form new online groups. All are now empowered and ready for online learning.

Many educators claim to have an online learning community when really what they have is only temporarily forced web-based learning. An online learning community is 1) at least partially voluntary, 2) held together by the culture of the participants, and 3) if healthy, grows, changes and evolves. If, however, a cultural readiness is not present an active and evolving culture of

online learners may not be realized. Mark Van Buren (1998) quotes Larry Prusak's (1997) messages, "When it comes to successful managing of knowledge, culture trumps all other factors." (p. 43)

#### **4. METHODS AND PROJECT PARTICIPANTS**

Data were gathered from undergraduate pre-service teacher educators (n=36), graduate level practicing teachers (n=31), and college professors (n=35). Data for the undergraduates and college faculty were only gathered for comparison purposes during a decision phase of a project designed to identify the *next steps* for infrastructure development.

Data from pre-service undergraduates were acquired by administering a single student questionnaire towards the end of a required educational technology course and by instructor interviews.

Data from the practitioner teachers were used for comparisons and intervention purposes. After initial data were gathered, approximately half of the graduate-level practicing teachers were provided with a 10 week experience of using technology and participating in an online learning community. The conceptual framework for this experimental group of graduate students followed Salmon's five step e-moderation.

A second half of the graduate student group was presented with a traditional computer in education course without exposure to Salmon's e-moderation procedures (Salmon, 2000). Data from current teachers (i.e., graduate students) were gathered by two separate questionnaires at the beginning and end of a required educational technology course, examination of WebCT and WebBoard artefacts and instructor interviews.

Volunteer college faculty (n=35) from 11 different institutions committed to completing at least one 8-week distance education training module. Many completed three modules. These modules taught faculty how to use WebCT in each of the participant's subject areas. Most of these participants were initially eager to acquire techniques and skills that they could use in their courses. Techniques for the volunteering college faculty were derived from the suggestions of Palloff and Pratt (2001). Data for the college professors were harvested from WebCT discussion logs and a formal evaluation report.

#### **5. RESULTS**

Previous course offerings provided only anecdotal evidence (Carlsen, Diamantes, and Veres, 2002) and student evaluations strong enough to

justify program and curricular changes. While course changes and programs of this study are currently under revision this body of evidence adds to previously acquired evidence that supports efforts to offer additional content online.

## 5.1 Undergraduate and graduate student comparisons

The primary focus of this project was the examination of teachers and the factors contributing to the establishment of vigorous online learning communities. Undergraduate students enrolled in teacher education courses did not resemble the students described by Levin and Arafeh (2002). They more closely resembled current practicing teachers. Initially, approximately 90% of both graduate and undergraduate students used the same search engines, either Yahoo or Google. Ninety two percent of graduate students approved of Internet filters for schools and libraries while 89.5% of pre-service teacher approved of filters in schools and libraries.

Differences were detectable in the areas of e-mail and chat or instant messenger use. Ninety percent of graduate students used e-mail at least daily and an additional 6.5% used e-mail at least weekly. The primary purpose for use of e-mail was work related (96.7%) while only three teachers reported using e-mail almost exclusively for personal reasons.

Undergraduate pre-service teachers also used e-mail heavily but their purposes were very different. Sixty nine percent of undergraduates reported using e-mail daily while 8 (20.5%) reported using e-mail at least weekly. Forty-seven percent (n=17) admitted that they used e-mail only for communication with friends or family, not for work or school related activities. This is interesting because they were all enrolled in a computer education course with the university's policy not to require undergraduate students to own or have access to computers. All but one graduate student owned a personal computer at home. A dramatic difference was found in the reported use of instant messenger (IM) or chat. Undergraduates (43%) used chat or IM daily while only (13%) of graduate students *ever* used chat or IM.

## 5.2 Evaluation of faculty online learning classes

Thirty-five faculty volunteers from 11 different institutions agreed to enrol in a series of online courses that would prepare them to offer classes online. Two nationally recognized authors of a popular online learning text were selected to lead the classes. At the conclusion of the third section only 12 faculty remained. Of those remaining, perhaps 5 could have taught online courses without additional instruction. All faculty were experienced

teachers, volunteered and thus were interested, and they knew their subjects exceedingly well attributes that should have assisted them to be successful online teachers.

Most faculty wanted direct instruction that directly focused on objectives. As a result, activities and assignments consisted mainly of extensive reading and discussion postings. Online teaching and learning classes with extensive reading/discussion formats and without synchronous meetings, the use of videos, or interactive experiences (group activities) online learning quickly became boring (Cohen & Ellis, 2001). Because this was a volunteer course most faculty withdrew. Little of the course content represented constructivist procedures. One assumption of this project for faculty was that they should take a course online. While this is not necessarily wrong, the faculty members who were initially friendly to teaching online now report strong reservations. What faculty failed to experience were support and deployment of e-mentors into the mix.

When highly proficient nurses who are experts in obstetrics are assigned to an emergency room they behave more like novices than as experienced and talented veterans (Brenner, Tanner, and Chelsea, 1992). This is analogous to what often occurs when educators are transferred from a traditional face-to-face classroom to an on-line setting. Fortunately, the nurses and teachers who persist evolve rapidly. Not all may be so inclined but if we provide support for faculty the transition may well be more enjoyable and rapid.

### **5.3 Comparisons of two graduate student sections**

Two graduate classes of the same course were offered. In one class the emphasis was placed on Internet participation which included online activities and more extensive e-mentoring (Salmon, 2000). The other class offered graduate students the same content but within a traditional computer-based lab. All student projects were designed to be similar.

Graduate class comparisons did not yield the results that were hoped for based on Salmon's steps. In other words, a development placement of students on particular steps could not be detected by the use of the questionnaire that was used for this investigation. The artefacts and projects that the students produced, however, showed a remarkable contrast.

Students in the Salmon (experimental group) reported that they had completed more creative projects. This was a marked departure from their earlier responses, a change that the control group did not report. There were substantial increases in the number of web pages developed by the Salmon group. All students in this group all possessed at least one academic web page, participated in two online chat experiences, took several virtual field

trips, and built a repertoire of online resources for students or colleagues. Almost 36% of the Salmon group came to class on optional attendance days. These students also met with their peers online and then stayed for more than two hours just to work on projects and hang out. Typically 40% of the Salmon group remained in the computer lab after dismissal.

The control group produced products much like those of the Salmon group. Students also supported each other online and on the computer, viewed the Internet and computer with the same relative power to impact on their social and academic learning, and generally viewed the Internet and computer positively as a tool to enhance their learning. The differences were in what they did and how they did them. Most quantitative assessments would fail to detect such differences between groups.

## 6. CONCLUSION

From within a particular genre or culture, people rarely view themselves as those from outside their culture would view them. The major differences between ICT practices of future and practicing teachers were the degree of activities with chat and instant messaging. Younger students used more rapid electronic messaging yet held many of the same opinions.

Where technology is required, graduate and undergraduate teacher educators may well be evolving differently. If in fact teachers are such strong factors in the development of a culture will future teachers who are more technologically competent be more valued? Will those we presently prepare be ready to compete and take their places as educational leaders?

Faculty who prepare future teachers may be eager to integrate ICT but unless their educational programs support their efforts with meaningful and effective training this may not be effective. ICT oriented cultures are clearly not well established in either current or future teachers or in those who will teach them in the academy.

Seasoned and excellent educators regularly retreat from using technology because of its unpredictability, the reality that in ICT one experiences a consistent learning curve regarding applications and hardware, and a lack of sufficient time. Unless we change the way we train and support teachers, realization of the ICT enhanced learning setting may not be soon realized.

We can with reasonable assurance insure that technology and online learning can succeed. We have many lessons that we have already learned. Our experimental group was more online ready, more enthusiastic towards ICT, and clearly had taken giant strides in forming at least a temporary face to face and virtual learning community. The traditional technology group did not have such experiences yet these future teachers will also be taking their

place as teachers in our schools. All students learned a great deal about ICT during a 10-week course. We must continue to help ICT become a meaningful part of our learning cultures in K-16 and teacher preparation. When we use e-mentors effectively we help create an ICT culture in a compassionate and effective manner.

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