Learning Anew: An Exploratory Study about New Online Learners' Perceptions of People Interaction and Learning to Learn in an Online Course

Patti Shank, Doctoral Student, University of Colorado, Denver
Venita Doughty, Doctoral Student, University of Colorado, Denver
May 24, 2002

Abstract: This study looked at how new online learners in the first course in a graduate level online instructional technology certificate program experienced interacting with others in an asynchronous online discussion and learning to learn online. The study followed twelve new online learners throughout the class using email questionnaires and email follow-up questions. Significant themes included difficulties and fears, time factors, and desire for more feedback and smaller groups. Over time, most participants adapted and found benefits in addition to challenges. One-fourth of the participants did not adapt and left the program at the end of the course. Postings gradually became more social and fewer were directed primarily to the instructor. Correlational and predictive analyses provided insights into the importance of computer skills, initial experiences in the course, and quantity of discussion postings.

The entire paper (with full literature review and additional tables and participant data) is available at: http://www.learningpeaks.com/discussion_study.

Introduction

Student discussion in a college classroom conveys numerous instructional benefits and is considered to be critical to learning (Gunawardena and Zittle, 1997; Nunn, 1996; Ormrod, 2000). If interaction with people is important and discussion is the primary venue for this interaction, we must understand why learners chose to (and not to) participate, in order to optimize decisions about design and facilitation in online learning environments. The goal of this study was to take a close look at the thoughts and feelings of adults who are new to online learning as they take their first online course. The primary research questions at the outset were:

- How do new online learners view online discussions?
- What factors influence participation in online discussion? What makes participation more likely? Less likely?
- Do learners' views and participation change over time, as the course progresses?

What I found in these new online learners' responses went beyond the original scope of these questions. I came to understand how they perceived some of the challenges and opportunities of asynchronous online learning, in general, as well. All of the participants struggled with using a new medium for learning. Most overcame the challenges and found the process to be satisfactory or better. The challenges were insurmountable for a few participants and they chose to not remain in the certificate program after the end of the course.

Participant Solicitation

This study involved twelve out of the thirty students in two online sections of a graduate level, asynchronous, large public university instructional technology course called "Developing Educational Websites." This course is the first in a four course online certification program called "Designing and Developing Web-based Learning Environments." I decided to study only new online learners because returning online learners had already self-selected this method of learning as acceptable to them.

Data Collection

Participation consisted of responding privately to me, via email, to three email questionnaires (I used the term "email journals" with participants in order to encourage in-depth answers) at the beginning, middle, and end of the study. The course was 10 weeks long and the
questionnaires were sent to participants by email in weeks 2, 5, and 10. As students responded, I followed-up via email with additional questions. Questions for the middle and final questionnaires were developed in response to the types of answers received in earlier questionnaires.

Data Analysis

As I read through each journal, follow-up, and discussion posting, I looked for themes. It became apparent to me that participants were also describing their experience of learning to learn in this environment in addition to providing insights about online discussion and interaction. I added an additional question to be answered in this study: How do new online learners experience this environment (in general)?

I started with a list of expected general themes (personal issues, other people issues, technology issues, course issues), gained from the literature, and added additional sub-themes as they became apparent. The general codes I began with served as containers for the sub-codes that emerged. In addition, a general code for general asynchronous discussion and online learning issues emerged. The following sub-themes were coded:

<table>
<thead>
<tr>
<th>Themes</th>
<th>Primary Sub-Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. General online learning and asynch discussion issues</td>
<td>1.1 Lack of immediacy of response/Disjointed nature of discussion 1.2 Need authentic activities to make discussion “real” 1.3 F2F/Visual cues/Written communication vs. spoken/ Hard to connect names with real people 1.4 24/7 / More work/effort than F2F class 1.5 Helpful posts: a solution to problems/others work keeps me on track/feedback/instructor comments 1.6 Collegiality develops over time and with right design 1.7 Benefits of asynchronous discussion and/or online learning</td>
</tr>
<tr>
<td>2. Personal issues</td>
<td>2.1 Self-consciousness/Looking stupid/How I will be perceived/How much to reveal/Others know so much more than me 2.2 My own efforts make a difference to the discussion and to the course/You get what you put in/I can do this. 2.3 Feel timid about asking for help or pushing for own needs</td>
</tr>
<tr>
<td>3. Other people issues</td>
<td>3.1 Want comments and feedback from other learners</td>
</tr>
<tr>
<td>4. Technology issues</td>
<td>4.1 Difficulty of following the discussion/thread</td>
</tr>
<tr>
<td>5. Course issues</td>
<td>5.1 Small groups work desired 5.2 Post to complete assignments/Posting is required</td>
</tr>
</tbody>
</table>

Table 1: Themes and Sub-Theme Codes

Venita Doughty, another doctoral student, helped me evaluate discussion forum postings for type of posting and audience of the postings. This was done in order to understand how students used the discussion forum, and provided additional insights into the second and third research questions.

Results

Study participants were primarily mid career adults, working in K-12, higher education, or corporate training, with advanced degrees (or working on an advanced degree). The mean age was 43 years of age, with a range between 24 and 59 years of age. The mean level of education was master's degree.

The nature of the certificate tends to attract people with an interest and aptitude for technology, but many students expressed technical frustrations during the course. The range of skills needed to build instructional websites is broad, and even those with relatively higher technical skills coming into the program experienced difficulties with the range of skills taught.
Many expressed a great deal of nervousness about learning online and learning these skills from the outset.

In the following sections, I will describe the themes that emerged and provide some examples of participant comments that illustrate many of the themes and sub-themes. Pseudonym initials and the journal number precede excerpted comments.

**General online learning and asynchronous discussion issues**

One of the most pervasive themes that emerged in participants’ journals, follow-ups, and discussion postings was that communicating through online asynchronous discussion was generally not nearly as compelling as face-to-face discussion. For many, it felt disjointed. Many participants expressed this much more strongly at the beginning and middle of the course than towards the end. Many of the participants, however, came to find communicating this way as acceptable as the course continued.

The three participants who chose not to continue with the certificate program after the course ended, TZ, CY, and AH, expressed strong negative feelings about online discussion, and these feelings continued throughout the course. A related theme was how the lack of visual cues made communication difficult. A number of the study participants expressed difficulty with knowing who was who. On the other hand, one participant felt that it was actually easier to know about the people in the course in this medium.

Many participants described the challenges of communicating in a written medium. Spoken communication, for most, conveyed subtle and not so subtle benefits over written. Some also felt increased anxiety about communicating in this way. JH felt cautious about communicating in writing and it impacted her willingness to provide substantive feedback. She described an incident where she strongly questioned another student's conclusions and began to write out a response but then changed her mind about posting it. The lack of visual cues in written communication also impacted understanding.

Many of the study participants felt that learning this way felt like a lot more work than learning in a traditional face-to-face classroom. The commitment felt more like 24/7 rather than a more typical face-to-face class where the commitment was "Tuesdays from 5-9 PM."

Despite the challenges, many of the study participants began to see positive aspects of communicating publicly over time. Collegiality and the sense of a shared experience developed over time and under the right circumstances. The right circumstances turned out to be a publicly posted final project and the expectation (assigned and graded) to provide substantive peer feedback on others' projects. Many participants emphasized that this type of authentic activity (rather than "forced interaction") was just the thing to make them feel connected to others and that more of these types of assignments were needed.

**Personal issues**

One of the most consistent and pervasive comments that emerged, especially in the first and second journals and discussion postings at the beginning of the course was self-consciousness and fear of looking stupid to others. Many of the study participants asserted that others knew an awful lot more than they did. These remarks matched and extended the remarks made about the nature of written communications described earlier.

**Issues with others**

When asked in the second set of journal questions what would make participants more likely to interact in the discussion forum, the most consistent answer was more feedback from other learners.

**Technology Issues**

Some participants felt that following conversation in the discussion form was confusing, disjointed, and time consuming. Some participants adjusted well to the technology over time but others continued to struggle with it. For those that struggled, the technology augmented the disjointed and time-consuming nature of communication.

**Course Issues**

A number of participants expressed a desire for working in smaller groups. Participants wrote that it would be easier and more comfortable to get know people this way and felt that they would feel more connected and less anxious.
A number of participants chastised me for making participation in the discussion forum such a large part of the course evaluation (it comprised 20% of the final grade). Many said they felt forced to participate. Some said discussion and participation were essentially a waste of their time. They preferred to spend the time in more solitary activities.

Time...

An emerging meta-theme that tied together all the others was the element of time. Many of the study participants began to see positive aspects of asynchronous discussion and learning as the course progressed. Many saw that challenges were balanced by benefits, and that both challenges and benefits could exist at the same time. A few even described benefits over learning in a face-to-face setting. Some of the challenges (e.g., takes more time) also contained benefits (e.g., more time to digest).

In general, posting numbers increased over time. Social postings and postings to provide information to others in the class went from 16 in Project 1 to 104 Project 7. At the beginning of the course, many of the posting were targeted towards the instructor. By the end of the course, most of the postings were targeted towards the other students in the course. In general, the postings of those that chose not to increased over the course, too, but they did not increase nearly as much as the others. There did not appear to be a dramatic change in type or audience over time.

Correlational and linear regression analysis was performed with all of the Likert-like questions, the course grade, number of discussion postings, and whether participants continued with the certificate program. These analyses showed the following significant correlations and predictive values.

<table>
<thead>
<tr>
<th>Correlated Factors</th>
<th>R</th>
<th>R²</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal satisfaction journal 1 / Personal satisfaction journal 3</td>
<td>.851</td>
<td>.725</td>
<td>.004</td>
</tr>
<tr>
<td>Computer skills journal 1 / Continue with the program</td>
<td>.683</td>
<td>.407</td>
<td>.035</td>
</tr>
<tr>
<td>Personal satisfaction journal 3 / Continue with the program</td>
<td>.684</td>
<td>.415</td>
<td>.032</td>
</tr>
<tr>
<td>Personal satisfaction journal 1 AND Computer skills journal 1 / Personal satisfaction journal 3</td>
<td>.949</td>
<td>.901</td>
<td>.001</td>
</tr>
<tr>
<td>Number of total discussion postings / How well obtained skills journal 3</td>
<td>.598</td>
<td>.357</td>
<td>.004</td>
</tr>
</tbody>
</table>

Table 2: Significant Correlations and Predictive Values

Paired dependent t tests for changes in personal satisfaction between journal 1 and 3 were not significant. There were no significant correlations with grade received in the course.

Discussion

*How do new online learners view online discussions?*

The study participants viewed online discussions in many different ways, sometimes at the same time. At first, most found the discussions to be more challenging than beneficial. Over time, benefits began to become apparent to many of the participants. Others' postings provided insights and helped keep them on track. Others' problems provided comfort for those also experiencing problems. The final project provided an opportunity for authentic feedback that engaged most of the participants and helped them see the value of interaction. Some participants never connected and these participants did not continue with the certificate program.

*What factors influenced participation? What makes participation more likely? Less likely?*

The factor that participants said would influence them to participate the most is feedback from others. It is interesting that only one of the participant's reflections included insights about
how their actions influenced others. It appears that it may be helpful to assist learners in gaining early "ah-ha's" about the value of reciprocal interaction.

Many of the participants expressed irritation that participation was required and some said they only participated because it was required. It became clear that authentic activities provided a better impetus for interaction than simply ordering interaction for the sake of interaction. Number of postings correlated moderately highly with participants assessment of whether they obtained the skills they desired in the course.

Do learners' views and participation change over time, as the course progresses?

Participants' views and participation changed a great deal over the ten weeks of the course. Instead of seeing only challenges, they began to see challenges and benefits. Postings, in general, increased. Social and informative postings increased dramatically. This occurred across the board but occurred much more for folks who were adapting to the environment. This provides yet another rationale for helping people adapt early, whenever possible.

How do new online learners experience this environment (in general)?

This is not necessarily an easy environment for all to adapt to. It takes perseverance, motivation, and a willingness to get past feeling inept and/or anxious. Not all adapt. The high correlation between personal satisfaction in journal 1 and in journal 3 confirms how critical it is that people feel successful early on. It also points to the importance of willingness to deal with uncertainty at the outset.

Conclusions And Opportunities For Further Study

The thoughts and feelings of these participants may not be representative of all online learners but should provide food for thought about the scope of thoughts and feelings of new online learners as they attempt to cope with interacting and learning in this new way. It would be beneficial to replicate this study with different audiences and content.

One of my primary conclusions was that instructional strategies are critical in the learning environment. Those that lower fear and promote quick success at the outset may affect participation and persistence. Authentic activities that involve students with each other early on may reduce fear and make the environment more compelling. Additionally, since this environment may not be optimal or acceptable for everyone, it may be necessary to help potential learners ascertain the suitability of the environment at the outset. When learning in this environment is necessary, we may need to provide additional supports in order to make it satisfactory.

References

