

# Exploring Educational and Cultural Adaptation through Social Networking Sites

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## Executive Summary

Social networking sites have seen tremendous growth and are widely used around the world. Nevertheless, the use of social networking sites in educational contexts is an under explored area. This paper uses a qualitative methodology, autoethnography, to investigate how social networking sites, specifically Facebook™, can help first semester doctoral students adapt to a Ph.D. program and a new national culture. Each week during the semester, a Ph.D. Student Tip and a Cultural Tip was posted. Students would then post related discussions, observations, and/or questions. At the conclusion of the semester the doctoral students shared their thoughts about participating in the Facebook™ group through autobiographical narratives. A technique called open coding was used to analyze the narratives. Our findings suggest three emergent themes. Social networking sites can aid adaptation through: 1) facilitating knowledge exchange, 2) alleviating apprehension, and 3) enabling socialization and building community. The data showed that the Facebook™ discussions aided in various types of knowledge exchange, providing a conceptual map that facilitated greater adaptation. Next, the interactions appeared to help minimize trepidation related to embarking on a new program of study and adjusting to a new national culture. Third, the Facebook™ group was useful fostering socialization and community among the students. We make the following recommendations for professors when implementing SNS (Social Network Site) groups: 1) establish a Facebook™ group with a course-related identity, 2) be sensitive to security and privacy issues, 3) provide tips to “seed” various types of knowledge exchange, 4) encourage participation, and 5) assess and adjust. While our research is exploratory in nature, we believe it provides a foundation for future research in this important and rapidly expanding area of SNS usage.

**Keywords:** Social networking sites, cultural adaptation, educational adaptation, knowledge exchange, Facebook™, autoethnography

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## Introduction

There is increased interest in the use of Social Network Sites (SNSs) within formal education settings. A call has been made for educators at all levels to “explore ways in which they could use social networking for educational purposes” (National School Boards Association, 2007, p. 1). Facebook™ is one

of the most popular SNSs used today, as evidenced by its 500 million active registered users and its rapid growth rate estimated at 105 percent from 2008 to 2009 (Facebook, 2010a; comScore, 2010). It has been identified as a potential educational tool because it is already used extensively among college students. Bowers-Campbell (2008, p. 82) states, “Facebook™ is student-friendly, student-centered, and student-controlled; the social nature of Facebook™ invites participation instead of mandating it.” In addition, Charnigo and Barnett-Ellis (2007) suggest that “by exploring new types of Internet services such as Facebook™ instead of quickly dismissing them as irrelevant, we might learn new ways to reach out and communicate with a larger segment of our [academic library] users” (p. 31). Therefore, exploring a SNS tool such as Facebook™ in an educational context is both relevant and timely.

In this study, we investigate how Facebook™ can aid students in their educational and cultural adaptation process when beginning a new program of study. There is a limited amount of research that examines how social media can help students in their educational and cultural adjustment process. Our study makes several contributions to the literature. First, we review previous literature by examining SNSs use in educational contexts, contrast how they differ from traditional Learning Management Systems (LMSs), and present the strengths of SNS usage in some situations. Because of its broad use and applicability to social constructivist and connectivist pedagogies, we believe that it is worthy of investigation. Next, we conduct a richly descriptive exploratory study in this area and begin the dialogue of how SNSs can help students more easily adapt to their educational setting. Our study articulates core issues by identifying three factors that can aid in this process. Third, we provide advice to instructors on how they can integrate SNSs into practice. And fourth, we provide a launching point for future research and suggestions on how to proceed.

The remainder of the paper is laid out as follows. In the next sections we discuss SNSs, describe educational use of SNSs, contrast LMSs with SNSs, and explore cultural adaptation through SNSs. Next we describe our methodology followed by a discussion of our findings. This discussion is followed by limitations of our study, future research recommendations, and conclusions.

## Social Networking Sites

A SNS is an Internet site that typically provides a core set of services in which members can build a personal profile, create and maintain a relational network of friends or contacts, and communicate with these individuals in various ways over the Internet (Boyd & Ellison, 2008; Ellison, Steinfield, & Lampe, 2007; Gross & Acquisti, 2005). Thus a SNS allows members to create a personalized online community, which may or may not mirror offline connections. Specific SNSs, such as LinkedIn, Facebook™, and MySpace™, have developed reputations for catering to either particular types of members or for offering distinctive functionalities. For example, LinkedIn is often characterized as a SNS for professional contacts and makes available a method in which members can provide brief recommendations for others. Facebook™ and MySpace™ have developed reputations for having a large number of members who seek shared interests or educational backgrounds (Ellison et al., 2007).

The first SNS is said to have originated in 1997 with an Internet site called SixDegrees.com (Boyd & Ellison, 2008). This site was the first to combine user profiles with the ability to create and communicate with a list of friends. Since that time, a number of SNSs have emerged that offer those basic functions but also provide additional capabilities such as the ability to create and communicate with a variety of groups or participate in various online games. SNSs’ memberships have grown exponentially and now have the benefit of broad international usage (Schonfeld, 2007, 2008).

## SNSs: Educational Use

Although Facebook™ is one of the fastest growing and most popular SNSs among university students, there is a paucity of empirical studies examining its use in educational settings. A review of the literature, however, does reveal several representative themes of the type of research being conducted in this area. The first theme addresses how Facebook™ may serve to increase self-efficacy (a person's belief that he or she can succeed at a given task) and self-regulation (how one can monitor his or her own learning). The second theme focuses on the level of self-disclosure among faculty members using Facebook™ and its impact on students. The third theme, although not directly related to an educational setting, examines how student personality impacts perception, adoption, and use of a SNS such as Facebook™.

In a study conducted by Bowers-Campbell (2008) Facebook™ was used as a tool for improving academic motivation among university students enrolled in a developmental reading course. Specifically, Bowers-Campbell made an argument that using the features of Facebook™ may help students to better connect “with college reading expectations since it offers potential for battling low self-efficacy and poor self-regulation behaviors plaguing many developmental learning students” (p. 76). In order to address self-efficacy among students, “superlatives” or “virtual gifts” were suggested as a type of reward system to recognize the achievements of the students in the course. It was also recommended that Facebook™ can be used as a means to foster a sense of “connectedness” between the instructor and students in order to further increase self-efficacy even before the course started by having the students review the instructor's profile in an effort to familiarize themselves with the instructor. Facebook™ not only helps to facilitate a connection between the instructor and students, but it also offers a means for building peer support among students. This provides the student with an increased level of control and has the potential to create a “classroom of students who accept and support each other” (p. 80). Creating groups, “poking” class members, and providing photos and profiles are all under the control of the students, providing a sense of ownership and control over their learning environment. As suggested by Bowers-Campbell, “virtual class rosters and group meetings via Facebook™ might soothe anxieties by providing an online support group of learners who care about the students' success” (p. 81). In terms of self-regulation, it was argued that SNS technology provides a large measure of autonomy and may “reinforce self-regulated learning strategies” (p. 81). Specifically mentioned was the group feature of Facebook™, which lends a great deal of control to the students in terms of defining their own learning goals.

A second study suggested that elements such as student motivation, affective learning, and classroom climate are affected by the level of instructor self-disclosure via Facebook™ (Mazer, Murphy, & Simonds, 2007). Thus increased levels of motivation and affective learning, as well as a greater positive classroom climate, result from the student's perception that an instructor is high in self-disclosure. Mazer et al.'s (2007) study took place in a basic communication course consisting of 133 undergraduate students. Three experimental conditions were developed based upon the instructor's level of self-disclosure: high, medium, and low. Students were then randomly assigned to one of these three groups. An individual one-way ANOVA was performed in relation to level of self-disclosure and motivation, affective learning, and classroom climate. The results indicated a statistically significant difference in each case, supporting the hypotheses that a higher level of self-disclosure on the part of the instructor resulted in higher levels of motivation and affective learning as well as a more positive classroom climate. The implication, therefore, is that the use of Facebook™ for educational purposes hinges on the approach taken by the instructor as well as the student's familiarity and use. In sum, it could be said that the degree to which the instructor is willing to utilize the features of Facebook™ will significantly impact the student's perception of the instructor, the course, and their own willingness to use these features as well.

A third study explored the personality and competency factors influencing student's use of Facebook™ (Ross, Orr, Sisic, Arseneault, Simmering, & Orr, 2009). Ross et al.'s (2009) study was conducted among 97 undergraduates. The students completed a questionnaire developed by the authors based upon the Five-Factor model which examines traits such as neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. Additionally, the questionnaire captured data related to competency. Several hypotheses were put forth in relation to the traits of the Five-Factor model including the following: (1) students high in extraversion would utilize Facebook™ and its features more often, have a greater number of friends, and belong to more groups; (2) students high in neuroticism would spend more time on Facebook™, share more personal information, and send fewer private messages; (3) students high in agreeableness would have more friends; (4) students high in openness to experience would communicate more via Facebook™, use more of its features, and have a greater knowledge of those features; and (5) students high in conscientiousness would limit their Facebook™ use. In terms of competency the authors asked the following question, "How would competency and familiarity factors be related to the functions of Facebook™ that participants utilize?" (p. 580). The findings related to extraversion indicated that students high in extraversion did indeed participate in more groups; however, in terms of number of friends, online time, and use of communicative features, no statistically significant differences were found. In regard to neuroticism, there was no statistically significant relationship between high neuroticism and posting of personal information. Interestingly, it was found that students high in neuroticism preferred using the Wall, as opposed to those low in neuroticism who preferred posting photos. Agreeableness, openness to experience, and conscientiousness were not found to be statistically significant in relation to the features of Facebook™. Factors related to competency indicated that those high in CMC (Computer Mediated Communication) motivation spent more time on Facebook™ per day. In conclusion the authors stated, "One of the most surprising outcomes from the present study was the relatively few significant findings in relation to the personality variables" (p. 582). Although Ross et al.'s (2009) study was not directly related to the use of Facebook™ in an educational setting, it does raise an important question about whether some students are more likely to use Facebook™ for educational purposes than other students.

### **LMSs Contrasted with SNSs**

Learning Management Systems (LMSs) have been defined as "web-based systems allowing instructors and/or students to share materials and interact online" (Lonn, Teasley, & Krumm, 2011, p. 642). Scholar360, Moodle, and Blackboard are commonly used LMSs that can be used to restructure traditional learning techniques to accommodate modern age learners preferences (Awodele, Idowu, Anjorin, Adedire, & Akpore, 2009). The functionality provided by many LMSs can be grouped into three categories: 1) instruction, 2) assessment, and 3) communication (Beatty & Ulasewicz, 2006). The instruction category includes providing course content such as podcasts or lecture notes. The second category, assessment, provides capabilities in which students can take online quizzes or exams in a timed or non-timed fashion. Instructors potentially have the ability to set up the assessments with various choices such as allowing multiple attempts, displaying correct answers, and randomizing questions. In the third category, communication, interactions can be asynchronous (e.g., through email or discussion forums) or synchronous (e.g., through chat capabilities). Communications can also be classified as learner-instructor interactions or learner-learner interactions (Ling, 2007).

LMS-assisted teaching that primarily implements only the first two categories has been accused of being used with instructivist or transmissive models of learning in which the educational approach is primarily top-down (Salavuo, 2008). That is, activities associated with instructor pre-defined assignments are incorporated rather than embracing social constructivist or connectivist

pedagogies. In these cases, older methodologies merely are adapted to newer online environments.

LMSs were designed for private individual access and have been gradually modified to incorporate first collaborative and now social features. For example, some e-learning systems now incorporate features such as wikis or blogs (Awodele et al., 2009). Some have argued that true blended learning is not solely combining face-to-face and online instruction (categories 1 and 2), but must also have elements of social interaction (category 3) (Heinze & Procter, 2006). In these cases, there is greater opportunity for collaborative, horizontal (peer-to-peer) learning. However, Sharpe, Benfield, Roberts, & Francis's (2006) review of 300 blended learning studies showed that providing access to supplementary resources was the most common use of institutionally supported online learning environments.

Salavuo (2008) argues that SNSs may be better suited for collaborative pedagogical approaches for a number of reasons, including the following. First, students are more in control of their environment. Second, information contained in personal profiles may highlight an individual's expertise and identify common interests, thus building a sense of community and providing an opportunity to both learn from one another as well as learn by teaching others. Third, college age students widely use SNSs. Therefore, they are familiar with the interfaces and the metaphors used. Fourth, SNSs provide excellent support for multimedia formats. In the case of music education, the context of Salavuo's (2008) investigation, multimedia formats and embeddable applications can act as a starting point for collaboration and for presenting and distributing music. However, we also argue that multimedia format support can facilitate the exchange of photographs, which may in turn facilitate greater interpersonal knowledge and community building. We also note several other differences between LMSs and SNSs. LMSs usage is often course related. At the conclusion of a semester, students may no longer have access to the course-related discussion forums. SNS interactions may facilitate longer-term, ongoing relationships. Instant mobility is also another difference between LMSs and SNSs. At the time of this study Moodle (an open source LMS) is only available on iPhone devices (not android or Blackberry yet) through a paid third-party application that is not supported by Moodle. Blackboard requires each university to set up and maintain a mobile service application package in order to provide mobile service to students, and the services are divided into component packages. In contrast, Facebook is supported in full functionality by free applications to every mobile device OS. Blackboard seems to have recognized this, and is now offering a Facebook application that provides some Blackboard functionality (Facebook, 2011).

"By the nature and facilities of a Facebook group, it cannot serve as a system for uploads and downloads of files nor for maintenance of records; its purpose is to promote interaction and debate" (de Villiers, 2010, p. 173). Because of this, the use of SNSs might not be the right tool for all situations. However, its use is worthy of investigation, especially when the above mentioned characteristics are important. We believe that student educational, cultural, and social adaptation can benefit from the characteristics provided by an SNS.

## **Cultural and Social Adaption**

The process and ability of people to adapt to a new cultural environment from one that has been previously ingrained for a significant time is a major concern of cultural adaption research. As such, initial cultural adaption research explored the complex relationship between environmental conditions and the behavioral resources of the people involved in changing environments. This process is understood to be a group process rather than an individual one, based on the understanding that culture and cultural change are also group-level phenomenon (Barger, 1982). Subsequent literature, however, has defined and studied cultural adaption on an individual level, suggesting that it is a phenomenon that occurs when an individual acquires an increasing level of

fitness or compatibility in a new cultural environment (Gudykunst & Kim, 1984). Our study examined cultural adaptation in doctoral students by posing questions regarding their experiences in orienting, adjusting, and adapting to the doctoral program and to the United States.

It has been suggested that the high rate of attrition among doctoral students can be attributed to significant feelings of social isolation (Ali & Kohun, 2006). There is a great deal of pressure and stress for doctoral students in regard to adapting to and finishing the first year, preparing for and taking comprehensive exams, identifying, submitting, and defending the proposal, and completing and defending the dissertation. Feelings of being left behind and without social support are only increased considering that many of these activities take place in isolation away from peers and faculty members. The authors contend that it is not surprising, therefore, that many doctoral students “silently” drop out of their programs.

Although factors such as age, gender, ethnicity, and cultural background differ among students, it is reasonable to believe that feelings of isolation are experienced by the majority of those pursuing their doctoral education. Specifically related to cultural background, Ali and Kohun (2009) utilized an ethnography approach to explore the relationship between cultural differences, social isolation, and doctoral program attrition. Their primary argument suggested that social integration with other students is impeded when students with similar cultural backgrounds group together; thus increasing their sense of social isolation. Simply stated, “Students who stay with their same cultural group have a higher chance of feeling socially isolated and do less effectively in the program” (p. 2). Consequently, the authors proposed that “students who are more socially open and mix with students from different backgrounds have more of a chance to be socially integrated into the program and a better prospect for completing their doctorate degree” (p. 2).

According to Ali and Kohun (2006), “Socialization, whether it would be educational or otherwise, leads to more inclusion, support, and understanding,” thus indicating that it is important to provide a “mechanism for socialization between the students themselves and with the faculty” (p. 27). In an effort to help alleviate the sense of isolation among students and increase their chance for success, it is important for institutions to provide a mechanism for social support and community building. A SNS, such as Facebook™, is potentially one such mechanism to promote not only educational adaptation, but cultural adaptation as well, within an academic context. Facebook™, through its various features, provides such a forum for faculty and students to informally communicate about both educational and personal issues. Beginning with individual courses taken during the first two years through the comprehensive exam and proposal stages, all the way through the completion of the dissertation, where students often feel the most isolation from their peers and faculty members, Facebook™ could be used to facilitate social support via the exchange of ideas, concerns, and progress through the formation of groups.

## Methodology

Autoethnography is a type of qualitative research utilized by relativistic and constructivist paradigms. Specifically, autoethnography is a particular form of ethnography where researchers use participants’ insights to gain a more complete understanding of why humans behave the way they do. Participants share their experiences and thoughts through an autobiographical narrative (Ellis & Bocher, 2000). In doing so, the participants use their own lenses of personal meaning to frame their experiences.

The participants in this research were first semester doctoral students enrolled in a research methods course in the College of Business of a large Midwestern university in the United States. Data were collected over two semesters. The responses were anonymous and students were guaranteed that there would be no negative ramifications if they chose not to participate. In fact, the study was conducted in each semester after the final grades were posted. Thirteen out of twenty-four

students chose to participate. Because the participants were asked to provide narratives, the response process was time consuming. Eight of the participants had been in the United States less than five years, coming from China, India, Lebanon, Malaysia, Romania, Saudi Arabia, or Viet Nam. Six of the eight international students arrived in the United States for the first time just before the semester began.

The course instructor created a Facebook™ group for the class. Each week a “Cultural tip of the week” and a “Ph.D. student tip of the week” were posted. Examples of these tips are shown in Table 1.

<b>Table 1. Tips posted on Facebook™ group</b>
<b>CULTURAL TIP EXAMPLE</b>
<p><b>Don't Be Afraid to Ask Questions</b></p> <p>Americans are often fairly uninhibited. In some cultures students may be reticent to ask questions. But in the U.S., as long as questions are asked in a respectful manner, they are usually welcomed. Some people may be hesitant to ask because they may not comfortable with the language. But, it is always good to clarify things that you don't understand and/or express your opinions. Your input is valuable and can enrich the dialogue and other's learning.</p>
<b>PH.D. STUDENT TIP EXAMPLE</b>
<p><b>Manuscripts Take a Long Time to Publish</b></p> <p>When you submit a manuscript to a journal it is often reviewed by the Senior Editor, an Associate Editor, and then hopefully sent out to three or so peer reviewers. This process can take several months to over a year depending on the journal.</p> <p>It is rare that you will get a manuscript accepted on the first review – especially at top journals. Usually you would get a “revise and resubmit” if the paper is not rejected. When you revise a paper you will need to create a point-by-point response to each reviewer's comments. The revision can take several months, depending on the amount of revisions that are required.</p> <p>Once resubmitted, the revised paper will often go through the same procedure in terms of being sent out to reviewers (if revisions are minor, it may just be reviewed by the editor). Once accepted, it may be published fairly soon (online journals) or as long as several years before your article is actually printed. If the article is not accepted, then the process starts all over with another journal.</p> <p>You can see what a time consuming process this is! SO, get started on the publication track as soon as possible.</p>

After the course had officially ended at the end of the semester, the students were asked to provide narratives, discussing their educational adaptation experiences to the Ph.D. program and their cultural adaptation experiences if they had been in the U.S. for less than 5 years. They were also asked to discuss whether or not the course Facebook™ group helped them adapt to living in the United States and, if so, the specific ways in which it helped. Participation was anonymous and optional, and the promise that there would be no negative ramifications if they chose not to participate was reinforced in that narratives were submitted after the posting of semester grades.

The narratives averaged two type-written pages in length. A technique called open coding was used to analyze the narratives (Strauss & Corbin, 1968). Each was iteratively read, and the key points were marked with codes which had no preexisting labels. Again, the narratives were read and the codes were then grouped into themes.

## Findings

Based upon iteratively reviewing the autobiographical narratives, several common themes emerged regarding how SNSs can aid the educational and cultural adaptation process. They are 1) enhancing knowledge exchange, 2) alleviating apprehension, and 3) enabling socialization and building community. Each of these themes is discussed below.

### ***Enhancing Knowledge Exchange***

One of the predominate themes of the narratives was that participants were intently seeking knowledge. Facebook™ tips and discussions were helpful in supplying various types of knowledge to the students and for providing a conceptual map that facilitated greater adaptation. For example, one narrative stated:

I think that area of the Facebook™ group that helped was the messages about the Ph.D. program on a weekly basis. It helped give us a picture of the entire program and what we needed to do at every step. Some of these things were not fully explained to us by anyone before.

Another autobiographical respondent stated:

The Facebook™ group helped me a lot. ... For instance, how to prepare for dissertation, how to prepare for academic conferences, these topics are completely new to me. From the group, I've got an overview of these steps I'm about to experience.

Culturally, Facebook™ has the potential to provide pragmatic knowledge that can assist foreign students to better comprehend their new environment and, when appropriate, to make changes to their understanding or behaviors to become suitable to situation specific problems. In this regard, Facebook™ exchanges sometimes yielded procedural knowledge, providing ideas on the culturally accepted behaviors for a given situation. For example, one contributing author stated, "Dr. X provided lots of tips and useful information [via Facebook™] for Ph.D. students living in U.S. which helped us a lot." Another international student stated:

If you do not know the rules, methods, and useful information, it probably will cost lots of time, money, and energy to do things. So it is very important to learn information from some local people or those who have lived here for a long time. They know what you want, what you can do in a much easier way.

### ***Alleviating Apprehension***

Entering the Ph.D. program was viewed as stressful. While this may not be true of all Ph.D. programs around the world, it is consistent with other research performed in the U.S. (e.g., Smith, Maroney, Nelson, Abel, & Abel, 2006). The structure of a graduate program can contribute to confusion and frustration among students (Lipschutz, 1993). One contributing author stated:

Adjusting to the Ph.D. program was difficult because it was totally different from the undergraduate and master's programs. So the first thing I had to adjust to was the work load and the way in which classes took place ... For new students I would say that they will feel overwhelmed and distraught at times, but the first semester is the most difficult.

In this category the SNS was able to provide support that was important in encouraging and assuring students in a time of great transition. For example, one contributing student stated:

Some of the questions and clarifications, though not related to the course, were helpful in removing our fear and helping us to visualize what is ahead in our journey to get our doctorates and proceed with our academic career.

While the Facebook™ interactions appeared to be helpful in bolstering the confidence of both national and international students, the latter wrote more specifically about their experiences. For example, one stated:

There are postings that international students are hesitant in class discussion and... I was happy to see that my feelings were at least understood.

### ***Enabling Socialization and Building Community***

The autobiographical narratives in this study suggest that Facebook™ provided a mechanism for socialization between students and, also, between the students and faculty. This SNS group was important in facilitating a form of interaction in which people could become linked together as a community. For example, one autobiographical respondent stated:

I think the most important thing about a SNS like Facebook™ is that it helps you meet and stay in touch with people (i.e. networking). Therefore, this site should be used to keep Ph.D. students and professors in touch.

Another stated:

...Firstly, it helped me to communicate more easily with other classmates. We can share information, talk with each other through Facebook™. Secondly, we can know more about each other from the pictures, “things doing”, for international students, we can know more about American life from Facebook™ and we could also make new friends.

The social isolation as identified by Ali and Kohun (2006) was represented in some of the narratives, for example:

I did have some difficulties in the beginning in orienting myself to the Ph.D. program because of the new people and the new system. Some of my cultural and social factors prevented me from mingling with whoever I met. Loneliness is major. Being single and not having a roommate is difficult. Focus is also difficult. I am a “get up and get things shaking” kind of person, so sitting behind a desk and crunch numbers or writing papers all day is difficult. Like variety in my life too...so attention span is a barrier.

While no one explicitly stated, “Facebook helped me combat social isolation,” this theme was clearly evident in a number of the narratives. For example, one respondent wrote, “This [Facebook™ group] really helped us share our views in an informal way.” Another respondent wrote, “From my experience with Facebook, I can expand extensively my network of friends.” And yet another wrote, “The group did allow us to communicate with each other and plan social events.”

## **Implications for Practice**

Data from our exploratory study suggests that SNS groups can provide valuable outcomes that potentially aid in student educational and cultural adjustment. Specifically, we make suggestions on how our study can help professors better inform their practice.

### ***Establish a Facebook Group with a Course-Related Identity***

The first task is to create a SNS group for the class. Naming the group with the year, semester, and course name can be done for easy recognition. Prior research suggests that posting a group

picture on a SNS group can potentially lead to greater identification with the community (Ryan, 2010), thus adaptation can be aided.

### ***Be Sensitive to Security and Privacy Issues***

One issue that has been discussed in the practitioner and academic literature is the appropriateness and degree of familiarity that teachers have with their students when they interact on SNSs. Recently the Lee County school district in Florida, USA, issued guidelines to teachers suggesting that it is inappropriate to “friend” students (Murphy, 2010). However, by creating a group, professors don’t necessarily have to become “friends” with their students. This may ease privacy concerns from both sides.

A Facebook™ group can be set up as an open, closed, or secret group. An open group is available to anyone and its content can be indexed by search engines. With a closed group, anyone can see the group description but not other content such as discussions or photos. In addition, administrators must approve new members. “Secret” groups provide the most privacy in that members must explicitly be invited to join (Facebook™, 2010b).

Some students may not wish to post a photo of themselves when they create their personal Facebook™ profile because of individual and/or cultural privacy preferences. Because of potential government monitoring, some international students may be hesitant to officially record that they “Like” or “Dislike” something. However, unless the comments were of a political nature, most felt this was not a concern.

### ***Provide Tips to “Seed” Various Types of Knowledge Exchange***

Some past research has found that “unguided communications” can lead to undesirable results (Heinze & Procter, 2006). We found that seeding discussion through providing various type of knowledge in the “tips of the week” was useful.

Alavi and Leidner (2001) described various types of knowledge as shown in Table 2. These types of knowledge categories are not necessarily mutually exclusive. Therefore, a given exchange of knowledge might fit into more than one category. We recommend incorporating different types of knowledge into the tips given to students so that they will initiate or “seed” various perspectives and interactions.

When analyzing the knowledge provided in the Facebook™ tips in our study, we found that they could be classified as explicit and individual knowledge, in addition to other categories, because they were explicitly externalized through written comments and created by, and inherent in, the individual who shared them. Social knowledge was shared, especially in the cultural discussions, as they described shared norms that are collectively created.

Examples of declarative knowledge include knowledge about specific aspects of either cultural or educational adaptation, the Ph.D. program itself, or social activities planned among the group of students. Procedural knowledge exchange (know-how) involved how to adapt to cultural and educational challenges, how to approach dissertations and conferences, and how to get settled in the U.S. Causal knowledge, that is, why something should be done, was aimed at encouraging or motivating students to accomplish something. Conditional knowledge (know-when) most often related to the timing of requirements and milestones in the Ph.D. program. Instances of relational knowledge (know-with) concerned knowledge about how the interrelationships between the phases of the Ph.D. program and how they were related or fit together as a whole. Almost all of the instances of knowledge exchange were classified as pragmatic (useful information), which is understandable given the nature of the questions and discussions.

**Table 2: Knowledge types, definitions, and examples**

KNOWLEDGE TYPE	EXAMPLE
Explicit	Upon arrival in the United States, you may have noticed that many things are much larger: the houses, the cars, the food portions, and the people (Wanning, 2005).
Tacit	None. [NOTE: All knowledge exchanged via Facebook™ is communicated through written media. Scholars have proposed that once knowledge is externalized (outside of one's mind), it becomes explicit rather than tacit.]
Individual	Many colloquialisms (or slang language) are different in various regions of the USA. For example, I grew up in Southern California where one would address a group as "You guys" (even though the group might not be all "guys" or males, and in fact could consist of any gender makeup including all female). In Texas, one might address this same group as "You all." A contraction form of this is often used in the South: "Y'all"
Social	American culture is typically described as "low-context," meaning that Americans are straightforward in their conversations (Wanning, 1991).
Declarative	Some Christmas traditions that you might see in America include: -Decorating the outside of houses with lights and a wreath on the door -Decorating Christmas trees with ornaments -Caroling (singing Christmas songs around the neighborhood, family gatherings, etc.) ...
Procedural	(In regard to the dissertation) Drive the [dissertation] process and keep control of it by working with externally imposed deadlines and managing your own schedule (Grover & Thatcher, 2008).
Causal	(See Ph.D. Student Tip in Table 1 for an example).
Conditional	File for Graduation: A month before defense, file for graduation. This will generate the signature sheet needed for defense. See (website) for details.
Relational	The draft for Chapter 1 of the dissertation will change as Ch. 2 and 3 are developed, but you need a starting point to lay out basic ideas, initial model, etc.
Pragmatic	You were chosen to be in this Ph.D. program. You are smart enough to be here. Whether you finish is 95% dependent on persistence.

### ***Encourage Participation***

Students should be encouraged to participate in Facebook™ discussions, emphasizing that they can provide unique perspectives that may be useful to others. This can aid in socialization, community building, and becoming more comfortable in the academic and cultural environment. For example, one participant stated:

The site will be more helpful if all students contribute: something about their culture, tradition, opinion about the course, style of teaching, etc. For example, girls from my country do not look at the face of a male and speak, even to her father. This is considered disrespectful. But in US, the contrary is considered disrespectful. So, it will take certain time for the girl to adapt to US environment. If everyone in the class including the faculty knows in advance, they will not consider her behavior as odd. Though one cannot discuss these in classes, something like this in Facebook™ will surely be helpful.

Explaining to students the value of SNSs like Facebook™ in enabling community and connections can encourage them to participate. One respondent stated:

The more we share, the more we can learn and the bigger the social network would be. We can share information, pictures through Facebook™, and it would be better if we could share some documents. It would be more attractive to post some interesting articles and stuff on the website.

One recommendation is to require students to post something each week or to post a given number of times per semester. Previous research has found that students will not necessarily volunteer to communicate online unless there is some incentive in the form of a grade (Heinze & Procter, 2006). In order for students not to feel intimidated about posting, a participation grade as opposed to assessing the length or the depth of postings may be appropriate.

Our study involved a blended environment and did not include a control group in which communications were solely virtual or only face-to-face. It is possible that allowing students communicate virtually may negatively impact face-to-face communications with students believing that they do not need to communicate as much on a physical level. However, some prior evidence has shown that there is no difference in self-assessed communications between blended and face-to-face environments (Carbonaro et al., 2008). In our study, at least some students felt more comfortable with each other because of interacting in both types of environments. For example, one respondent stated:

One area that could be helpful would be asking the students to discuss their feelings and concerns [in the Facebook™ group] and then have a meeting where they could all get together once a month to go out for lunch or dinner or something.

### ***Assess and Adjust***

Educational assessment is an ongoing process that aims to enhance effectiveness (Buzzetto-More & Alade, 2006). Some have viewed assessment as a circular feedback loop that includes planning, executing, measuring, analyzing, and improving based on the data (Martell & Calderon, 2005). Just as with other educational tools, assessments should be done of the value and methods by which SNS groups are incorporated into educational programs. As with any course assessment, open-ended or closed-ended questions can be used. One way that this might be done is to ask students to complete a brief anonymous questionnaire regarding their experiences at the mid-point and/or end of the semester. Examples of open-ended questions might include: Discuss whether or not the Facebook™ group has helped you adapt to the Ph.D. program (or to the United States) and, if so, discuss the specific ways in which it has helped. Which topics should be omitted or added? How can Facebook™ be used more effectively in the future to help students adapt?

Closed-ended questions can also be used to assess results. Prior research can be a useful source of questions in terms of measuring degree of educational or cultural adaptation, degree of knowledge exchanged, the extent to which social isolation was reduced through Facebook™ use, and an assessment of how well Facebook™ facilitated socialization and community building.

### **Limitations and Future Research**

All research methodologies have strengths and weaknesses. Qualitative methodologies provide rich data and are especially appropriate at the exploratory phase of researching a phenomenon but are typically small in sample size and thus offer limited generalizability (McGrath, 1982). Our data suggests that SNSs can aid educational and cultural adaptation through 1) facilitating knowledge exchange, 2) alleviating apprehension, and 3) enabling socialization and building community. However, qualitative methodologies such as the one we used, autoethnography, do not in-

corporate controls that experimental designs afford, thus preventing the testing of causal connections. We therefore recommend that future research empirically test the relationships we find in this research.

We investigated the adaptation of Ph.D. students to a program of study. The sparse higher education research on SNSs has focused primarily on undergraduate education. However, future research could investigate the unique characteristics of educational adaptation at all post-secondary levels: undergraduate, masters, as well as Ph.D.

Our study also investigated the cultural adaptation of international students, yet the number of originating countries from which the students came was small. A university-wide study would yield greater diversity in terms of differing cultural origins of students. Because our sample was small and fairly diverse, we were not able to explore the argument made by Ali and Kohun (2009) that students with related cultural backgrounds have a propensity to cluster together, thereby hampering their social integration with other students and, as a result, increasing their self-perception of social isolation. It is possible that students at different levels, such as undergraduates, would have had access to a greater number of individuals at the university that came from their home country, and by sharing and becoming friends, these students might have reduced their sense of isolation.

## Conclusion

The literature review for this study revealed a gap in educational adaptation studies using SNSs. This research is a first step in addressing that gap. We explore how SNSs can aid the educational and cultural adaptation of new Ph.D. students during the time of greatest transition that occurs at the beginning of their programs of study. Our findings suggest that Facebook™ groups can facilitate knowledge exchange about the structure, steps, and schedule of a Ph.D. program. It can also enable various types of knowledge exchange so that international students can better adapt to a new culture. Next, it can help students alleviate apprehension by the sharing of a variety of experiences and by offering support via suggested coping mechanisms. Our findings also can potentially help student combat social isolation through interactions and building community. While our research is exploratory in nature, we hope it will lay the groundwork and spur additional research in this important and burgeoning area.

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