

FAILURE AND SUCCESS IN PRACTICAL COMMUNICATIONS: A critique of
communication methods at the University of Utah Athletic Department

An Internship Project
presented to
the Faculty of the Communication Department
at Southern Utah University

In Partial Fulfillment
Of the Requirement for the Degree

Master of Arts in Professional Communication

by

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May 2009

APPROVAL PAGE

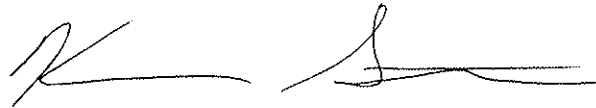
The undersigned, appointed by the dean of Humanities and Social Science, have examined the internship entitled

FAILURE AND SUCCESS IN PRACTICAL COMMUNICATIONS: A critique of communication methods at the University of Utah Athletic Department

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Acknowledgements

I would like to acknowledge the faculty and support staff in the communication department at Southern Utah University for the instruction, patience, and knowledge that I have received. Specifically, I would like to thank Suzanne Larson for her persistence and aid in the process, Brian Heuett for his support and assistance, and Coach Eric Houle for giving me the opportunity to attend Southern Utah University. I would also like to acknowledge the compliance staff at the of the University athletic department for their help in the completion of this project.

Executive Abstract

This paper outlines my internship at the University Athletic Department, including an in-depth analysis of two specific projects. Social Cognitive Theory, with an emphasis on Computer Self-Efficacy, is discussed in great detail and then applied to the projects. Uses and Gratification Theory is also discussed in the context of social networking websites including MySpace and Facebook. Ultimately this paper works as a detailed application of communication theory in order to explain practical occurrences.

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Forward

This paper applies various communication theories to practical situations. Organizations such as the University Athletic Department are anxious to utilize the latest technology to increase their overall effectiveness. Implementing that technology among a diverse group of individuals can be a very taxing event.

The problems associated implementing new technology can be mitigated by recognizing and applying communication theories. This paper details the use of two communication theories and provides ample examples of their application.

Names of Coaches and Student Athletes have been omitted, but some coaches are discussed in such detail that process of elimination could be used to discover the identity of the Coach. The University Athletic Department requests that any distribution of information that may apply to a specific coach be limited to that which is prudent to complete the project.

Introduction

The (name of university omitted) Athletic Department provides an internship for law students who are interested in working in athletic administration. These internships are liberally formatted to allow interns to work in the direction of their interest as well as utilize their unique skill sets. The internship is directed by Associate Athletic Director for Compliance (name omitted) Esquire with oversight from Athletic Director (name omitted). The internship began in May of 2008 and will continue to May of 2010 and requires 15-20 hours a week.

The compliance office has the responsibility of assisting coaches, athletes, and boosters comply with all NCAA rules and informed on proposed rules, while providing a confidential avenue for individuals including athletes, coaches, fans, faculty, and administration to ask questions and express possible concerns. To accomplish its objectives it is necessary for the compliance office to provide efficient and effective channels of communication with coaches and athletes. Creating an atmosphere that encourages open communication and providing channels to facilitate that communication is an ongoing and ever-changing process.

This paper is divided into four sections: (1) a brief sketch of the compliance department and an outline of two specific projects; (2) an in depth discussion of two pertinent communication theories: (a) Uses and Gratification Theory and (b) Social Cognitive Theory and its relation to Computer Self-Efficacy; (3) application of the previously discussed theories to the two projects, including an in-depth look into four coaches' responses to adapting to new technology; and (4) additional observations and possible avenues for future research.

The Project

Compliance Office

The National Collegiate Athletic Association (NCAA) governs the actions of the its members coaches and student-athletes and has explicit guidelines that regulate the operation of athletics programs. Institutional control is a fundamental requirement of NCAA legislation. Institutional control includes oversight and responsibility for the actions of coaches, staff, student-athletes, and boosters whether or not the university is aware of those actions.

The (name of university omitted) Compliance Office is responsible for ensuring that individuals and groups representing the institution's athletics programs comply with all pertinent institutional, conference, and NCAA regulations. The integrity of the institution is upheld by promptly investigating any known or alleged rules violations and self-reporting any confirmed infractions. This goal is advanced by providing the institution's athletics teams with every opportunity to be successful in their endeavors within the confines of the rules ((name of university omitted) Compliance Office, 2008).

An inherent tension exists between ensuring the integrity of the athletic program, while allowing the coaches and athletes the latitude they need to survive in an extremely competitive environment. This tension often results in the compliance office being viewed as the police department of the athletic department, and coaches and athletes are inclined to minimize interaction with the compliance office and officers. Overcoming these barriers is a constant goal of any compliance office.

Two specific projects will be discussed in some depth. The first of these involves the mass media outlet the compliance office employs to communicate with student-

athletes. The second project involves the coach's utilization of technology in order to accomplish specific computer oriented tasks. Each of these projects will be discussed in depth including excerpts from interviews and focus groups.

Project # 1: Communicating with the Student-athletes

Compliance offices have a compelling interest in maintaining a reliable communication line with every student athlete to: (1) answer questions, (2) resolve eligibility issues, (3) conduct audits, and (4) schedule interviews. The (name of university omitted) compliance office had been using the student-athletes school issued email accounts in accordance with the athletic department issued compliance email accounts as the primary means of communicating with student-athletes individually. A monthly newsletter printed in a hard copy and distributed by placing a stack next to the computers in the academic center was used to communicate with them as a group. Responses to these emails were rare forcing compliance officers to attend practice in order to contact the athlete, and the monthly newsletter was deemed relatively ineffective due to the few copies that were actually taken.

Focus Group: At a Student Athlete Advisory Committee (SAAC) meeting, with most of the team's captains in attendance, these issues were addressed and possible solutions solicited in a focus group environment. The student-athletes in attendance admitted that they rarely, if ever, checked their university issued email accounts, and when they did they usually deleted all items from the university without looking at them. They described the service as being "slow", "inconvenient", and described the messages they received as "not important".

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When asked if personal email accounts would be more effective, there was a wide range of responses. All of the student-athletes in attendance had personal email accounts, but only five of the thirteen stated that they checked them at least once a day, six others stated that they checked them at least once a week, one of them could not remember the last time he had checked his personal account, and the final student-athlete stated, “I don’t really remember my password, I think someone musta changed it.” When asked what they did check on a consistent basis all but one of the student-athletes stated that they utilized a social networking site such as www.Facebook.com or www.MySpace.com.

Application: As a result of the focus group, it was decided to create a Facebook account for the compliance office. This would allow the exchange of confidential information with student-athletes, convey general information, and send team specific information to sub-groups. In order to include as many individuals as possible a master list of every student-athletes’ personal email address (also used as a Facebook member names) was created, and every individual who had a Facebook page was sent a Facebook friend request. Out of 405 student-athletes 317 (78%) of them were added as friends. To test the effectiveness of this system we sent out a message asking for everyone to send us their current phone numbers. Approximately 30% percent responded within the 24 hours, 70% within the first 72, all but 10 within the first week, and after a couple of reminders all but 7 responded. We sent a similar email to the 73 out of 88 student-athletes who do not have a Facebook account, or did not add us as a friend, to their personal email account they listed in their contact information less than 50% of those students responded, with less than 20% responding within the first 24 hours.

From these tests it was determined that we had at least one effective way of communicating with approximately 350 of our 405 student-athletes. For the remaining 55 athletes we worked with their coaches to get their cell-phone numbers, and all but three of those remaining 55 responded to a text message sent from a staff phone number. By utilizing Facebook, personal email addresses, and text messaging we are able to communicate with nearly every student-athlete at any time. This resource has been used to send out general reminders and warnings, congratulatory messages, notices of events, and as an aid in several investigations. In addition, we have shared this resource with other departments including academic advising, financial aid, and career counseling.

Another other major benefit that accrued as a result of our Facebook account is an increase in the amount of questions and information that we receive from student-athletes. We have received questions from student-athletes involving agents, transfers, and eligibility that have allowed us to utilize front end prevention techniques to head off serious problems before they occur. In addition, we have received information directly from student-athletes involving minor level-I violations by their coaches before those violations became major violations.

Problem #2: Going Green

Project #2 involved changing the methods used to monitor coaches and student-athletes' activities. For several years coaches have been given hard copy forms that monitor everything from recruiting to student-athlete employment. Many of these forms, such as the contact and evaluation logs, are turned in by every coach once a month; some like the countable activities --a form that tracks the number of hours that are required of their athletes— are turned in by every team on a weekly basis, and other forms are turned

in on a case by case basis. These forms were usually either delivered by hand, faxed, or even mailed from the coaches to the compliance office. Once the compliance office received the forms they were logged, examined, and filed. In order to have efficient records these files are kept in a large storage area for at least ten years.

In order to comply with the campus wide “Go Green” initiative we were directed to decrease the amount of paper we require from the coaches. This involved creating a user friendly website that would contain all the forms in an Adobe Acrobat version. Each of these forms were formatted to include a place for the coaches to place a digital signature and a “submit electronically” button that automatically sends each form to the email account of all desired recipients. For this process to work correctly all of the coaches computers were updated with Adobe Professional.

Once the forms and website were created and the coach’s computers updated with the necessary software. The subsequent steps included: (1) train all the coaches on the new system, (2) set up a digital signature, and (3) create files on the server where the digital forms could be stored.

Rather than begin the process with individual training, we sent out an email with simple instructions, and stated that any individual who needed extra training could contact us and set up a meeting. The results of these instructions were disastrous. Although Adobe Premiere had been installed it had not been set as the default program, a very simple but important task that had not been included in the step by step instructions. Therefore when the new forms were opened, they were opened in Adobe Reader which does not have either a digital signature or a “submit electronically” option. A majority of the coaches did not realize what had occurred and were unable to perform the requested

task. In addition, several of the coaches utilized a Mac rather than a PC and the instructions were not written for those individuals. Within the first day of introducing the new system we received approximately 30 emails detailing the struggles that had occurred.

After the initial introduction training appointments were made with about half of the coaches, while the other half stated that they were either too busy or that they had decided just to print off the forms and fill them out manually as they had done previously. A majority of the coaches who initiated the training sessions were very easy to train on the new system, and the bugs that had derailed their initial trials were easily solved. However, there were two coaches who initiated a training session that continued to have problems with the system.

Coach John: “Coach John” is a well paid and highly respected coach who has a reputation for being by the letter compliant with everything the compliance office or NCAA requires. This coach is a male in his mid-to-late 50’s and has been at the (name of university omitted) for approximately 30 years. During the training session this individual showed extreme awkwardness towards the computer; such as looking carefully at the mouse to make sure he pressed the right button, asked questions like “how do I get that back up”, and constantly inferred that the old system was much easier. In addition, Coach John displayed an extreme sense of annoyance for the time he had lost due to the instructions that had been originally sent. This training session lasted approximately 30 minutes while most of the others lasted only 5-10 min.

Once the training session was completed he continued to show some anxiety toward using the new system, and expressed his concern about not knowing whether his

forms had been received by the right person. Three months later he continues to send an email along with his submitted form requesting confirmation, and if he does not receive confirmation within the day he resends the form the next day. Another area of concern expressed by Coach John included the way the forms were saved for his own records. Adobe Premiere automatically saves every form in a designated folder on the secured server, but Coach John still preferred to print off a copy and file a hard copy, thus partially thwarting the original goal of the program.

Coach Jane: The second coach that had difficulty learning the system, “Coach Jane”, is a female in her mid-to-late 40’s who has been coaching for almost 20 years but had only recently come to the (name of university omitted). Like a lot of collegiate coaches, Jane usually displays a high level of self-confidence that comes off as intimidating to most outsiders. Jane was one of the first coaches to respond after the initial instructions had failed.

During the training session Coach Jane, made it very clear that she was, “computer illiterate” and stated that she had, “gone to school in a different era.” She worked the mouse very slowly and meticulously carefully selecting each window and taking her hand clear off of the mouse before she pressed the button. She asked, “now what did you just do” after every click that was made on the computer. This training session lasted more than three times the average amount, and upon conclusion she still seemed very unsure of herself and her ability to correctly work the program. Three months after the initial training Coach Jane has requested help on two different occasions, to sort out minor issues, but generally she uses the electronic submittal option for most of the routine forms.

The rest of the individuals who initiated a training session on their own proved to be fairly competent in using a computer. Once Adobe Premiere had been set as the default program they navigated through the instructions very easily and utilize the program almost exclusively in their communications with the compliance office.

Coach Bob: Out of the individuals who did not take the initiative in scheduling a training a session about half resolved the problem on their own. One of these coaches, Coach Bob, came to the compliance office the day after the initial instructions were sent, and informed us what problems had occurred and how to fix it. Prior to the new program being implemented Coach Bob was notorious for placing a low priority on fulfilling his monitoring duties. He usually turned in his forms late and not until we had made several requests for them. He seemed very excited about the new program, and since its implementation he has been much more likely to turn in properly filled out forms on time. The rest of the Coaches who resolved the issue without assistance use the paperless format almost exclusively.

Coach Jack: Coach Jack is a well respected and tenured male coach in his early 50's. Coach Jack, after several failed attempts, accepted the invitation to take part in a brief training session. Coach Jack did not display as much apprehension or awkwardness while working with the computer as Coache's Jane and John had, but he was clearly not as comfortable as some of the other coaches had been. During the entire training he seemed impatient and a little annoyed by his loss of time. He asked very few questions and the training only lasted 5-10 minutes. Following the training Coach Jack continues to turn in hard copies of handwritten forms.

Applicable Communication Theories

Theory #1: Uses and Gratification Theory:

Blumler and Katz's (1977) Uses and Gratification Theory suggests that media users play an active role in choosing and using the media, and that they are most likely to choose a communication channel that best accomplishes their individual goals. The theory states that an individual seeks out a media source that best fulfills their individualized needs, assuming the fact that multiple media sources are available (Swanson, 1977).

There are three objectives in developing a uses and gratifications theory: (1) to explain how individuals use mass communication to satisfy their communication needs. "What do people do with the media?"; (2) to discover underlying motives for individuals' media use; and 3) to identify the positive and the negative consequences of individual media use. A medium will be used more when the existing motives to use the medium leads to more satisfaction (1977).

The Uses and Gratifications (U&G) approach became prominent in the late 1950 and early 1960 as a way to measure the effect that mass media had on individuals. U&G is based on the assumption that mass media channels have interesting and important differences and those differences cause different channels to have a different appeal to each individual. It assumes individuals with similar demographic backgrounds such as socio-economic status, age, race, and gender would, as a group, prefer certain channels of mass media over other channels (see Figure 1.1) (Blumer, 1979).

Development of Uses and Gratification for the Computer Age: Over the past two decades internet usage has increased exponentially across the entire globe. As

internet usage has increased the amount of information available and its online communication capabilities has also taken a sharp rise. Social networking sites such as www.facebook.com and www.myspace.com have become extremely popular among high school and college students (Howard, Rainie, & Jones, 2001; Thaye & Ray, 2006). These sites allow users to post pictures, create a personal bio, find friends, and send either individual emails or mass posts.

In 2006 a CNN study titled *My Space Cowboys*, reported that MySpace had over 20 million users, and Facebook was estimated to have over 9 million users (Sellers, 2006). More recent studies have shown the number the number of registered users as being nearly equal, but that Facebook has taken over the number one spot as far as visits receiving approximately 1.2 billion visits in the month of January 2009, MySpace was still second with approximately 810 million visits, and twitter.com came in a distant third with 54 million visits (Kazeniak, 2009).

A 2008 study by John Raacke and Jennifer Bonds Raacke (2008) examined 116 college students in order to: (1) test the prevalence of the use of friend-networking sites among college students, (2) gather information regarding characteristics about the users of these sites, and (3) gauge the effectiveness of the site using U&G. The study consisted of 53 (45.7%) men 63 (54.3%) women, with a mean age of 19.7 years. The participants consisted of 55 (47.4%) Caucasians, 25 (21.6%) African American, 18 (15.5%) Native American, 10 (8.6%) multicultural, and 8 (6%) Hispanics (2008).

Of the participants surveyed an impressive 87.1% had either a MySpace or a Facebook account. Of the participants that had accounts 83.2% had a MySpace account, 90% had a Facebook account, and 74.3% had both. On average users spent 2.5 hours a

day on either their account or other's accounts, checked their accounts over 4 times a day, and had a mean of 235.51 friends linked to their account (2008).

Popular uses and gratification for having an account included "to keep in touch with old friends" (96%), "to keep in touch with current friends" (91.1%), "to post/look at pictures" (57%), and "to make new friends" (54.5%). Failed uses and gratification included "they just have no desire to have an account (70.3%), "they are just too busy" (63.4%), and 34% reporting that they "are just not good at technology" (2008).

J. Raacke and J.B. Raacke found that men and women were equally as likely to have a social networking account. The study did reveal a difference in the age of the users and nonusers with 19.05 being the medium age of the users and 24.8 being the median age of the nonusers (2008).

J. Raacke and J.B. Raacke (2008) argue that college students are likely to visit and utilize an account with a social networking site because it gives them the ability to create an expanded network. The fact that over 87% of college age students utilize a social networking site is evidence that they are able to provide positive uses and gratifications in excess of the negative uses and gratifications, and that social networking sites are better suited to satisfy these uses and gratifications than traditional email.

Theory # 2: Self Efficacy and Social Cognitive Theory

For organizations that rely on efficient and effective communication, the ability to adopt and utilize technology is crucial to their success. Over the past several decades communication and information systems researchers have defined two factors as key determinants of computer success: (1) computer self-efficacy and (2) value of the perceived outcome. By increasing either of these factors the likelihood of success in accomplishing computer related tasks increases, and conversely an organization becomes better able to utilize technology to their advantage (Czaja, Fisk, Rogers, Charness, Nair, & Sharit, 2006).

Background and Prior Research: During the 1970s organizations expressed concern that new technology had failed to either obtain their desired objectives or they had not been able to maximize its potential (Lucas, 1978). To explain this phenomenon researcher's utilized Martin Fishbein and Icek Ajzen's Theory of Reasoned Action (TRA). TRA hypothesizes that an individual's behavior is predicted by their attitude toward a task and how they think other people would view them if they performed the task. (as cited in Sheppard, Hartwick, & Warshaw, 1988). This formula can be expressed as: Behavioral Intentions = Attitudes + Subjective Norms (Thompson, Higgina, & Howell, 1991).

In the late the 1970s and early 1980s Albert Bandura's Social Cognitive Theory (SCT) replaced TRA as the most widely accepted model of individual behavior (Compeau & Higgins, 1995). Bandura (1989) states that SCT is based on the idea that environmental influences, cognitive factors, and behavior are all reciprocally determined; thus people choose the environment they are in while simultaneously being influenced by

that environment (see figure 2.1)(Bandura, 1989). Communication researchers began focusing their research on the cognitive factors particularly self-efficacy and its affect on outcome, and developed what has been termed “Computer Self-Efficacy” (CSE) (Burkhardt & Brass, 1990).

During the late 1980s and early 1990s researchers found a corresponding relationship between an individual’s self-efficacy toward computers and their ability to adapt to and successfully accomplish computer based tasks (Webster & Martocchio, 1993). In 1991 and 1995 two researchers, Deborah R. Compeau and Christopher A. Higgins developed a widely used test to measure an individual’s CSE, and a research model that utilized TRA and Computer Self-Efficacy to create a reliable model for predicting computer success (see figure 2.2) (Compeau & Higgins, 1991 & 1995) .

For the better part of two decades researchers utilized variances of Higgins and Compeau’s measurement tool and research model to test various factors including age, gender, amount of support, difficulty of task, and self esteem on an individual’s CSE (Czaja et al., 2006; Isiksal & Askar, 2005; Lagana, 2008). However, many of the results proved to be insignificant or contradictory to previous research. In order to explain these inconsistencies Thatcher, Zimmer, Gundlach, and McKnight (2008) proposed that by dividing CES into *internal* (ability to perform a task on their own) and *external* (ability to perform a task with help) researchers could provide more accurate and reliable results. By tweaking the Compeau and Higgins (1995) research model Thatcher et al., (2008) created a more accurate way to predict an individual’s future success, by dividing participants according to whether they display more internal or external CSE.

Social Cognitive Theory: SCT is based on the belief that environmental factors, personal factors, and behavior are all influenced by the other. Therefore a person's behavior is both affects and is affected by environmental factors and cognitive processes (see figure 2.1) (Pajares, 2002). Personal or cognitive factors can be divided into two distinct expectations that influence behaviors. The first set of expectations refers to the perceived outcome of their behavior. Individuals are generally more likely to engage in certain behaviors if they believe that the outcome of those behaviors has value. SCT states that the likelihood someone will engage in an activity increases as the perceived value of that outcome increases (Bandura, 1989; 1993; 2001). For example, a student is more likely to engage and persist in a specific graduate or professional education when the perceived outcome of that education is highly valued regardless of actual value. This is an example of outcome expectation. Research has shown individuals are more likely to accomplish computer related task, when the outcome expectations of that task is relatively high (Davis, 1989; Compeau & Higgins, 1995; Lagana, 2008).

The second set of expectations includes self-efficacy or the beliefs about one's ability to perform a specific type of behavior (Bandura, 1993). SCT states that as a person's perceived self-efficacy, or the perception of their own ability to complete a task, increases so does the likelihood of success (Bandura, 1989). More recently research has found that self-efficacy plays a significant role in predicting success in computer or technology related tasks (Vancouver, Thompson, Tischner, & Putka, 2002).

Self-Efficacy: Bandura (1986) defines self-efficacy as:

People's judgments of their capabilities to organize and execute courses of action required to attain designated types of

performances. It is concerned not with the skills one has but with the judgments of what one can do with whatever skills one possesses (as cited in Compeau & Higgins, 1995).

Perceived self-efficacy is the belief in one's competence to tackle a difficult or novel task (Bandura, 1989). Bandura (1998) argues that an individual's task specific self-efficacy can be used to predict an individual's likelihood of success in performing specific tasks. Individuals with a high level of self-efficacy are generally more likely to choose to perform more challenging tasks, set higher goals for success, persist longer, remain committed to their goals, and when setbacks occur they recover more quickly than those with a low level of self-efficacy (Vancouver et al., 2002; Thatcher et al., 2008).

Dimensions of self-efficacy can be divided into three major categories:

- (1) *Magnitude*: Difficulty of the task; "how hard of a task can I accomplish?"
- (2) *Strength*: Level of conviction and persistence; "how much time am I willing to spend attempting a given task?"
- (3) *Generalizability*: Applicability of one task to another; "how is experience with other projects going to help on this task?" (Compeau & Higgins, 1995).

Computer Self-Efficacy: CSE refers to an individual's judgment of their capabilities to perform new or novel task using a computer (Czaja et al., 2006). CSE does not refer to what an individual has accomplished in the past or their current skill level, but focuses on what they believe they can accomplish in the future regardless of their actual skill set (Compeau & Higgins, 1995). CSE is also not an individual's belief in their ability to utilize simple component sub skills such as typing, navigating, and entering data, in order to accomplish broader tasks like sending an email (1995).

The *magnitude* of CSE refers to the difficulty of computer tasks that an individual believes they can accomplish. This belief may be completely unfounded or based on years of experience and training. A person with a high CSE magnitude would perceive themselves as having the ability to accomplish extremely difficult or complex tasks such as building a website or networking computers, while individuals with a low CSE magnitude would express doubt in their abilities to accomplish even the simplest task such as entering data or finding a website (1995).

The *Strength* of CSE refers to the conviction and confidence with which an individual approaches a computer task. People with a high CSE strength would be more likely to persist in working toward accomplishing a computer task, while people with a low CSE strength would be more likely to be discouraged and give up when unexpected events occur (1995).

The *Generalizability* of CSE reflects an individual's ability to transfer success in one area to success in another. For example, people with a high CSE generalizability would be able to transfer success in emailing into a belief that they can successfully fill out online applications, but people with a low CSE generalizability would not make that connection and would therefore have less confidence in their ability of accomplish the task (1995).

Recently research done by Thatcher et al. (2008) discovered that by recognizing a distinction between internal and external CSE, results were more accurate and reliable. They argued that in order to draw accurate comparisons CSE needed to be divided into: (1) *Internal CSE* (the belief in one's ability to perform a task on their own); and (2) *External CSE* (the belief in one's ability to perform tasks with help) (2008). By

analyzing research subjects with this distinction in mind, researchers are better able to compare like participants and create more reliable results.

Thatcher et al. (2008) argued that individuals who tested as having a high internal CSE were more likely to engage in computer oriented tasks without assistance, persevere in those tasks for a longer period, and be less likely to seek help than individuals with a low internal CSE. Individuals with a high external CSE were more likely to engage in and accomplish tasks with assistance than individuals with a low external CSE (see figure 2.3) (2008).

Factors Predicting Success: Czaja's et al. (2006) research established a significant relationship between CSE and a willingness to choose to participate in computer activities, expectation of success, persistence when faced with difficulties, and performance. Research that attempts to isolate the factors that affect CSE has been much more inconsistent, but most researchers agree that past experiences, vicarious experiences, encouragement by others, available support all have positive effects on CSE (see; Compeau & Higgins, 1995, Czaja et al., 2006; Thatcher et al., 2008). A high level of CSE generally leads to a higher possibility of success in accomplishing a new or novel task, and decreases anxiety which further increases the likelihood of success (Czaja et al., 2006).

There has also been extensive research into whether demographic factors, specifically race, gender, and age can be used as a predictor of CSE. Early studies on the subject concluded that males generally had higher CSE than their female counter parts (Miura, 1987). A more recent study by Isiksal and Askar (2005) found that a similar

disparity between males and females existed amongst 7th graders, but that the gap has become somewhat lessened (2005).

Age has been another often studied factor in determining CSE. A study performed by Lucianna Lagana (2008) found age to be a very significant factor in determining CSE. Older individuals displayed significantly less CSE than their younger counterparts, and even after several training sessions older individuals maintained a lower level of CSE than similarly situated younger individuals who were put through the same training regimen (2008). These findings conclude that older adults generally have a lower internal CSE and external CSE than their similarly situated but younger peers. Education level has also been found to be a predictor of CSE. (Czaja et al., 2006).

Application: Uses and Gratification

Project #1

The focus group of student-athletes provided support to J. Raacke and J.B. Raacke's study, and went one step further by examining the usage of social networking sites with other channels of mass communication. Of the 13 student-athletes who took part in the focus group 12 had either a Facebook or a MySpace account and 10 of those 12 had a Facebook account. These users all stated that they checked their accounts at least once a day, and according to Raacke's study it is possible that the number is several times more than that.

Uses and gratifications were not discussed concerning why they used social networking sites, but there were some responses concerning the uses and gratifications that kept them from using other channels of communication. Participants in the focus group stated several negative uses and gratifications, such as the University's email service was, "slow", "takes too long to log in", and "has too many mass emails". Personal email sites were used more often but were described as, "having too many junk emails to sort through". In addition Raacke's study of similar aged college students' uses and gratifications included, finding and keeping in touch with friends, as the most common uses and gratifications for using a social networking site which is a function that email sites are not well known.

Utilizing Facebook as the primary means for communicating with student-athletes was the most practical decision from a uses and gratification perspective. As far as the students are concerned Raacke's study combined with our focus group concur on the fact that Facebook is highly utilized among college students. From an administrative standpoint Facebook provides the most positive and influential uses and gratifications. Facebook accounts are easy to make, bear no cost, and require very minimal upkeep. Facebook makes it very easy to search out current student-athletes, send individual emails, create mass posts, send team specific messages, and receive messages in return. Facebook records all the communication that takes place and sends a copy to a designated email account where it can be kept on file. Other channels of communication do not offer the same uses and gratifications as Facebook does, and in many cases have negative uses and gratifications. For example, utilizing a web based service or a cell phone provider to send over 400 text messages can be very expensive.

Project # 2

Uses and gratifications of the new program were both positive and negative. For the compliance office the uses and gratifications of utilizing the web and paperless forms were all positive. The coaches had mixed uses and gratifications depending in a large part on the individual coaches' computer aptitude and their CSE. The first area that will be discussed is the potential uses and gratifications that exist from the compliance office perspective; followed by the potential uses and gratifications from a coach's perspective.

Compliance Office: Utilizing the internet and Adobe Premiere as a way to provide a two way communication channel between coaches and administration provided overwhelming positive uses and gratifications for the administration. Positive uses and gratifications for the compliance office include: the ability to reduce the amount of records and storage space necessary to facilitate those records; to comply with the campus wide directive to reduce paper use; to create a more reliable system for receiving forms from coaches; and to reduce the overall cost of monitoring coaches' activities. The compliance office is much less diverse than the coaches and consists of only four individuals who are very dependent on technology, and all have an adequate computer aptitude and CSE.

Coaches: Utilizing the internet and Adobe Premiere as a way to provide a two way communication channel between coaches and administration provided mixed uses and gratifications for the coaches. For some coaches, like Coach Bob, the new system had only positive uses and gratifications including: more time efficient, less paperwork, easier delivery system, and simple record keeping. For other coaches, like Coach John,

the new system had negative uses and gratifications including: difficult instructions, typing is slower than writing, and lack of confidence in the system.

Social Cognitive Theory and Computer Self-Efficacy

Project #2

The (name of university omitted) implementation of a new system for communicating with the coaches and the athletes is a great example of SCT and CSE. Each individual mentioned in the facts section can be analyzed through an SCT lens using a combination of the research models derived from Compeau & Higgins (1995), and Thatcher et al. (2008) (see figure 2.4).

Coach's John, Jane, Jack, and Bob will be examined in that order. The analysis will look at what possible sources of CSE each individual drew from, whether they exhibited a greater internal or external CSE, the affect of CSE on their anxiety level, the value they placed on the perceived outcome of the task, and finally whether success was achieved. Following the analysis, general observations of the group as a whole will be discussed, followed by an examination of how to improve future efforts in this area.

Coach John: Coach John would likely measure as having a relatively low CSE, with a high value placed on the perceived outcome of the task. His low CSE may be attributed to a lack of personal experiences, vicarious experiences, and age. As a result he continued to have an increased anxiety about using technology, and success was only achieved after significant effort was expended.

Coach John most likely has not had a lot of personal experiences with computers. He is an older individual who has had the same job for an extended period of time, and until recently has required very little computer use. He is well known for his knowledge

and skill specific to his profession and has several assistants who manage most of the paperwork and a majority of the computer oriented tasks. It is similarly as unlikely that he received any encouragement from people around him. Coach John's position does not leave many individuals above him, and his personality is not one that opens itself up to advice, encouragement, or instructions from subordinates.

Considering his attributes it should come as no surprise that Coach John has a relatively low CSE, but his willingness to attempt the task without instructions and his ability to eventually accomplish the task leads to the conclusion that some CSE did exist. The strength of John's external CSE was relatively high with respect to his overall CSE. He indicated that he not only had attempted to accomplish the task without support, but that he persisted for quite some time before he asked for assistance. The Magnitude and Generalizability of his CSE could be viewed as being relatively low. Even though he attempted to accomplish the task with the given set of instructions, as soon as a minute problem occurred he gave up quickly. Coach John was not able to relate success in other computer activities such as emailing to a seemingly similar task.

Given the relatively low level of CSE Coach John exhibited, his decision to attempt the task without assistance shows that his CSE was mostly internal. Even when he decided that he needed support he made it plainly obvious that he only needed help because the instructions were insufficient. He made no indication that he was any more likely to be able to accomplish the task with assistance than he was on his own. Furthermore the fact that he continued to show anxiety even after he had received support is evidence that he had a very low external CSE.

Even though Coach John may have viewed the change from hard copies to computer copies as being unnecessary and unreliable, his willingness to attempt to learn the task on his own and take the initiative in setting up an appointment shows that he did place a high value on the outcome of the task. Coach John has always been very meticulous in his paperwork, never late with required forms, and very careful not to violate any procedures. Even though he disliked the new paperless program that had been implemented his desire to do everything exactly right drove him to place a high value on outcome.

Even though Coach John exhibited a relatively low CSE he was still able to accomplish the given task. His ability to accomplish the task can be credited to the value he placed on the outcome, and any future success Coach John would have at accomplishing a computer based task would likely be contingent on the value he perceived the task as having.

Coach Jane: Coach Jane could be describes as having a low internal CSE on all three levels (Strength, Magnitude, Generalizability), and a high level of external CSE in all three levels. Coach Jane's CSE is likely derived from vicarious experiences and encouragement from others, and showed visible increases throughout the stages of the task. She placed a high value on the perceived outcome, and despite a relatively low CSE and a high anxiety level she was still able to accomplish the task.

Coach Jane's awkwardness in navigating around the computer is evidence that she had very little experience with computers, but she did appear to gain confidence when she discovered that other coaches had been able to make the system work. It was also probable that she had received some encouragement from her peers, as both of her

assistant coaches had easily accomplished the same task with minimal training.

Demographically, Jane would not be likely to have an abnormally high CSE due to age and gender.

Jane initially gave up on the task after applying very little effort, which would imply that the strength of Jane's internal CSE was fairly low. Her inability to transfer accomplishments in other computer tasks toward this task and the fact that she did not ever attempt to resolve the issue by herself, implies that her internal CSE had a low magnitude and generalizability. Conversely, Jane did exhibit a stronger external CSE by persisting in the task for an extended period of time, once assistance was provided. It is likely that her external magnitude and generalizability would also be significantly higher than that of her internal CSE.

Jane's overall CSE increased noticeably throughout the training process. As she accomplished one small task after another, her belief that she would be able to accomplish the overall task increased. As her CSE increased her apparent anxiety decreased, and she exhibited confidence in her ability to accomplish the task and in the outcome of her work. Once she had completed the task, she was able to accomplish the same basic task but with different forms without assistance.

Similarly to Coach John, Coach Jane's ultimate accomplishment of the task can be credited to the high value placed on the perceived outcome. Jane was a new coach, who may not be confident in her job security and therefore careful not to make any mistakes. Because she has a desire to comply with all new programs instituted by the athletic director she places a high value on the perceived outcome of those tasks. This high value was apparent by her initiation of training sessions and the effort put forth in

accomplishing the task, in spite of her general lack of computer skills and high anxiety levels.

Coach Jack: Coach Jack likely had a low level of internal and external CSE, and perceived the task as having a low value. It can be assumed that Coach Jack had a relatively low CSE in all three categories by his reluctance to even attempt a task that would ultimately simplify his job. In addition, Coach Jack perceived any benefits from accomplishing the task as being so minimal that it was not worth the effort it would take to accomplish the new task.

Coach Jack, while similarly situated in many aspects with Coach John, is the exact opposite when it comes to the priority of obeying rules. He is notorious for turning forms in past their due dates and sometimes not at all. It was no surprise that he was not one of the first to schedule a training session, but it was surprising that even after other coaches in his staff had started using the new system and he saw how it could make his job easier that he still resisted the change.

Without further testing it is difficult to determine whether Coach Jack's failure to accomplish the task was a product of a low CSE, the low value he placed on the perceived outcome, or a combination of the two

Coach Bob: Coach Bob displayed a high CSE and easily accomplished the computer task. The strength and magnitude of his CSE were apparent by his ability to work past the problems that arose in order to find a solution. The generalizability of his CSE was made apparent by his ability to transfer experiences he had gained from other computer tasks toward new and novel tasks.

Coach Bob's high CSE had a significant effect on his perceived value of the outcome of the task. Like Coach Jack, Coach Bob rarely got his forms turned in on time and seemed much more concerned with other activities than he was with NCAA compliance, but where Coach Jack seemed to view the task as making his job more complicated Coach Bob viewed it as simplifying it. Because Coach Bob had such a high CSE he viewed the task as requiring very little effort which maximized the potential outcome.

Everyone Else: For the most part Coaches Bob, Jack, Jane, and John were the atypical participants. Most individuals fell somewhere in-between. Generally speaking most of the coaches perceived the outcome of the task as having benefits, and exhibited fairly high amounts of external CSE. There were several individuals who, like Coach Bob, displayed a high level of internal CSE, and were able to accomplish the task without assistance despite the faulty instructions. There were a couple of coaches who, like Coach Jack, resisted any assistance and presumably either out of a lack of CSE, low perceived value of the expected outcome, or both have failed to comply with the new program.

Future Uses of Social Cognitive Theory and Uses and Gratification

Recognizing CSE, SCT, and U&G prior to the implementation of new channels of communication will allow the implementer to cater the channel to the needs of the implementee. Prior to the implementation of a new communication program, three things should be done in order to increase the expected success rate. The first is to create a communication strategy that increases the participant's value of the perceived outcome. Second, the participants should be assured that the task is within their skill level and that

there are resources available to assist them, and third possible negative uses and gratifications should be identified and a plan created to mitigate their effect.

TRA and SCT places a an emphasis on the idea that individuals are more likely to successfully accomplish tasks if they perceive the outcome of that task as having significant value. In this situation very little emphasis, if any, was placed on the value of the task. The only significant message that was portrayed to the participants was that this was part of the campus wide “go green” initiative. In reality the new program brought a lot more benefits to the participants that would save them time, resources, and space. This message was communicated very poorly and many participants viewed it as a forced changed that altered their routine. Had they better understood the benefits of the program, they may have been more willing to participate.

Providing encouragement and examples of people who had already accomplished the task would have gone a long way in building the participants CSE. The manner in which the task was implemented worked in a much different direction and likely negatively impacted their CSE. The simple directions that were given did nothing to increase their CSE, and the fact that seemingly complex problems arose when they followed the directions, created a negative experience and likely had detrimental impact on their CSE. By simply identifying CSE as an important variable many of the problems that occurred may have been avoided. In the future when any computer related task or activity is required of coaches we will be more likely to enjoy success if we are able to place a high value on the outcome of the task and build participants CSE through vicarious experiences.

Listing all possible uses and gratifications of the communication channel prior to its implementation may help the implementor cater the communication method to the projected audience. For example, had the difficulty of typing been identified as a negative uses and gratification prior to the creation of the forms; the forms could have been made to have more scroll-down options that would eliminate much of the typing. When a new method of mass communication replaces an existing method it is natural for the participants to resist the new method (Swensen, 1977). Recognizing and mitigating or eliminating all possible negative uses and gratifications of the new method should lead to a greater level of usage once the program has been implemented.

Future Research

Any observations made during this project would require an in depth academic study to produce any reliable or useful results. Future research in an area related to the project could be done to look at the rationale behind student-athlete's inability to communicate with the compliance office. Possible applicable theories include: *Expectancy Value Theory*, *Communication Apprehension theory*, *Altercasting theory*, *Spiral of Silence Theory*, or *Grounded Theory*. Second, future research would be useful to provide more demographic information that could be useful to predict high or low levels of CSE; including a look at gender, age, and profession.

Failure to Communicate

One unforeseen positive byproduct of using Facebook to communicate with student-athletes is the increase of student-athlete to compliance communication. Prior to the implementation of this program student-athletes very rarely had any contact with the compliance office. Of all the violations in the last five years only once has the violation been reported by a student-athlete, and that student-athlete reported the violation by way of an anonymous letter. Since the creation of a compliance Facebook account the compliance office has received numerous tips that have led to minor violations, discovered misconduct before it became a violation, and answered student athlete questions that helped avoid future violations.

Providing a platform where student-athletes can confidentially communicate with compliance offices is a goal of compliance offices across the country. Much of NCAA legislation that is created is put in place to protect the student-athletes from unscrupulous coaches, and the only way such infractions can be discovered is for a student-athlete to make a report to the compliance office. For example, the NCAA provides clear and strict guidelines as to the amount of time per day, week, and month student-athletes can be required to participate in a sport related activity. These activities include practices, film sessions, conditioning, weight training, and fundraising activities. It is impractical for a compliance office to constantly monitor these activities, and without the aid of student-athletes infractions would go undetected. The longer infractions go undetected the more serious the infraction becomes and the subsequent punishment increases.

Recently in interviews student-athletes who knew of a violation stated that they were reluctant to report the violation for fear of reprisal from their coach and teammates,

and since the compliance office is surrounded by coaches offices felt they could not make a report in person. The compliance Facebook account worked in part to overcome some of the apprehension, and student-athletes have been more willing to send messages through Facebook to report misconduct than they had previously been.

Despite the successes it is likely that the reports we receive comes from only a fraction of the student-athletes who may have misconduct to report. According to J. Raacke and J.B. Raacke (2008) 87% of college age students have Facebook accounts, but only 78% of student-athletes added the compliance office as their friend. This suggests that approximately 40 or 10% of student-athletes declined the compliance offices friend request. There apparently exists some barriers between student-athletes in their communication with the compliance office.

Athletic Compliance offices are often perceived as the police station of the athletic department, and it is not surprising that most student-athletes are unwilling to report known coaches or teammates even when that misconduct has a direct negative effect on the individual. Communication researchers have provided several relevant theories that may explain why student-athletes may feel reluctant to openly communicate with the compliance office.

Expectancy Value Theory (EVT): EVT states that people orient themselves to the world according to their expectations and evaluations. According to EVT the likelihood of a student-athlete reporting a violation to the compliance office increases as their negative expectations decreases (Pajares, 2002). Subsequently in situations where the particular violation has an overwhelmingly negative impact on the athletes they are more likely to risk the reprisal and report the violation. In situations where the violation

has only a minor impact on the student-athlete, the likelihood of them reporting the violation is decreased. By decreasing the student athlete's evaluation of the negative results of their actions the likelihood of them reporting the violation increases. It is possible Facebook has done that for some student-athletes by increasing anonymity.

Communication Apprehension Theory: Communication apprehension affects over 20% of college students, and limits their ability to communicate. Communication Apprehension can increase based on the audience that they are communicating with and the topic they are communicating (McCroskey, 1977). In this case the audience could be viewed as an intimidating group and the topic is one that may result in consequences on the individual. Under these circumstances an individual who suffers from communication apprehension would be unlikely to provide an oral statement to the compliance office, but the same individual may feel comfortable utilizing a social networking site to accomplish the same task.

Altercasting: Altercasting occurs when an audience is forced into accepting a particular role that makes them behave in the ideal way, and may be a way to explain the student athlete's reluctance to report violations (Weinstein & Deutschberger, 1963). The roles between athletes and coaches are set out from the moment an individual's coach-athlete relationship is formed and are continually reinforced. Among other things these roles imply that the coach is always right, that questioning the coach is not acceptable behavior, and that teammates deserve the utmost loyalty. It is likely that most college coaches advance the perception of these roles in order to maintain discipline and respect among their athletes. Student-athletes who accept these roles would be unlikely to step out of their role, under any circumstances.

Spiral of Silence: Spiral of Silence refers to how individuals tend to remain silent when they feel that their views are in the minority. When a person believes their opinion is similar to that of the majority, they are more willing to openly disclose that opinion in public. If public sentiment is less favored they will be less willing to express that opinion publicly. In this case a student athlete may feel as though they are the only one who believes that the coaches' actions are wrong, and may be less likely to express that view when in reality many of their teammates may harbor similar feelings (Simpson, 1996).

Grounded Theory: Grounded Theory may be the best suited to produce a hypothesis as to why student-athletes are unable to openly communicate with their compliance office regarding the conduct of their coaches and teammates. By utilizing grounded theory a researcher would be able to provide a hypothesis that includes all the pertinent theories above into a single hypothesis.

Gender Gap

There is research that has found a significant gap between the males and females CSE levels, but most of that research has been done with either high school students or undergraduates (Isiksal & Askar, 2005; Luszczynska & Gutierrez-Dona 2005; Weinstein & Deutschberger, 1963). Observations made during this project suggest that any existing gender gap between professional males and females may only be apparent between internal and external CSE. Female coaches generally exhibited a higher level of external CSE than their male counterparts, and males generally exhibited a higher level of internal CSE than their female counterparts. These observations are purely hypothesis and further research would be needed to produce supporting evidence.

Generation Gap

Another avenue for future research would be to look at the levels of CSE amongst individuals of different generations. Most of the research that has been done relative to age compares individuals over the age of 65 with college students (Lagana, 2008; Thaye & Ray, 2006). Considering observations made during this project a more interesting study would be to look at individuals of different generations who work in a similar profession. The individuals in the example, who attended school within the last 20 years, appeared to have a higher CSE than those who had been out of school for over 20 years. In order to understand this gap better a study could be done that looked at the CSE of individuals in similar careers, and the affect computer literacy classes has on CSE.

Conclusion

The examples that are discussed above provide a snapshot of everyday life in the Compliance Office at the (name of university omitted). Communication within a Division I athletic department can be a very problematic chore. Individuals and groups with differing interest, educational backgrounds, skill sets, and communication aptitudes create a climate that requires the communicator to tailor the methods in a variety of ways.

When communicators become overly concerned with utilizing the method that best accomplishes their own goals, they naturally ignore the needs and abilities of the person on the other end of the communication. Social Cognitive Theory and Uses and Gratification Theory are two of many methods for analyzing the target group in order to

create a program or method that will have a high usage rate. Project #1 shows the positive impact a program can have when it is properly implemented with the target in mind. Project #2 illustrates what can happen when a program ignores the target participant prior to its implementation.

The internship at the (name of university omitted) Athletic Department office of Compliance has been a great opportunity to apply communication theories and methods to practical situations. Creating and maintaining effective forms of communication is an ongoing effort that requires the communicator to consider a smorgasbord of variables, produce effective communication strategies, test those strategies, reevaluate the strategy, and retest. Utilizing communication theories, such as Uses and Gratification and Social Cognitive, allows the communicator to predict the projected targets behavior and increase the efficiency of the communication strategy. Overall the internship has been a great opportunity to advance education outside the confinements of a classroom.

References

- Bandura, A. (1986). *A social foundations of thoughts and action*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, *44*, 1175-1184.
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, *28*, 117-148.
- Bandura, A. (2001). Social cognitive theory: an agentive perspective. *Annual Review of Phsycology*, *52*, 1-26.
- Blumer, J. G. (1979). The role of theory in uses and gratifications studies. *Communication Research*, *6*, 9-36.
- Burkhardt, M., & Brass, D. (1990). changing patterns or patterns of change: the effects of a change in technology on social network structure and power. *Administrative Science Quarterly*, *35*, 104-127.
- Compeau, D. R., & Higgins, C. (1995). Computer self-efficacy: development of a measure and initial test. *MIS Quarterly*, *19*, 189-210.
- Czaja, S., Fisk, A. D., Rogers, W. A., Charness, N., Nair, S. N., & Sharit, J. (2006). Factors predicting the use of technology: findings from the center for research and education on aging and technology enhancement. *Pshycology and Aging*, *21*, 332-352.
- Davis, F. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, *13*, 319-340.
- Fishbein, M., & Ajzen, I. (1975). *The theory of reasoned action*. Reading, MA: Addison-Wesley.
- Gatto, S. L., & Tak, S. H. (2008). Computer, internet, and e-mail use among older adults: benefits and barriers. *Educational Gerontology*, *34*, 800-811.
- Howard, P., Rainie, L., & Jones, D. (2001). Days and nights on the internet: the impact of diffusing technology. *American Behavioral Scientist*, *45*, 450-472.
- Isiksal, M., & Askar, P. (2005). The effect of spreadsheet and dynamic geometry software on the achievement and self-efficacy of 7th grade students. *Educational Research*, *47*, 333-350.

- Kazeniak, A. (2009, February 9). *Compete.com*. Retrieved February 15, 2009, from <http://blog.compete.com/2009/02/09/facebook-myspace-twitter-social-network/>
- Lagana, L. (2008). Enhancing the attitudes and self-efficacy of older adults toward computers and the internet: Results of a pilot study. *Educational Gerontology, 34* (9), 831-843.
- Lucas, H. C. (1978). Empirical evidence for a descriptive model of implementation. *MIS Quarterly, 2*, 27-41.
- Luo, X. (2008). Uses and Gratifications Theory and E-Consumer Behaviors: A Structural Equation Modeling Study. *Journal of Interactive Advertising, 2*.
- Luszczynska, A., & Gutierrez-Dona, B. (2005). General self-efficacy in various domains of human functioning: evidence from five different countries. *International Journal of Psychology, 40*, 80-89.
- McCroskey, J. (1977). Oral communication apprehension: a summary of recent theory and research. *Human Communication Research, 4*, 78-96.
- Miura, I. T. (1987). The relationship of computer self-efficacy expectations to computer interest and course enrolment in college. *Sex Roles, 303-311*.
- Pajares, F. (2002). *Overview of social cognitive theory and self-efficacy*. Retrieved December 28, 2008, from www.emory.edu: www.emory.edu/EDUCATION/mfp/eff.html
- Sellers, P. (2006, August 29). *CNNMoney.com*. Retrieved January 2009, from CNN.com: http://money.cnn.com/magazines/fortune/fortune_archive/2006/09/04/8384727/index.htm
- Sheppard, B., Hartwick, J., & Warshaw, P. (1988). The theory of reasoned action. *Journal of Consumer Research, 15*, 325-343.
- Shih, Y.-Y. (2006). The effect of computer self-efficacy on enterprise and resource planning usage. *Behavior & Information Technology, 25*, 407-411.
- Simpson, C. (1996). Elisabeth Noelle-Neumann's spiral of silence and the historical context of communication theory. *Journal of Communication, 46*, 149-173.
- Swanson, D. (1977). The uses and misuses of uses and gratifications. *Human Communication Research, 3*, 214-221.
- Thatcher, J. B., Zimmer, J. C., Gundlach, M. J., & McKnight, D. H. (2008). Internal and external dimensions of computer self-efficacy: an empirical examination. *55*, 628-640.

Thaye, S., & Ray, S. (2006). Online communication preferences across age, gender, and duration of internet use. *CyberPsychology & Behavior*, 9, 432-440.

Thompson, R., Higgin, C., & Howell, J. (1991). Personal computing: toward a conceptual model of utilization. *MIS Quarterly*, 15, 125-143.

(name of university omitted) Compliance Department. (2008, June). (name of university omitted) Policies and Procedures.

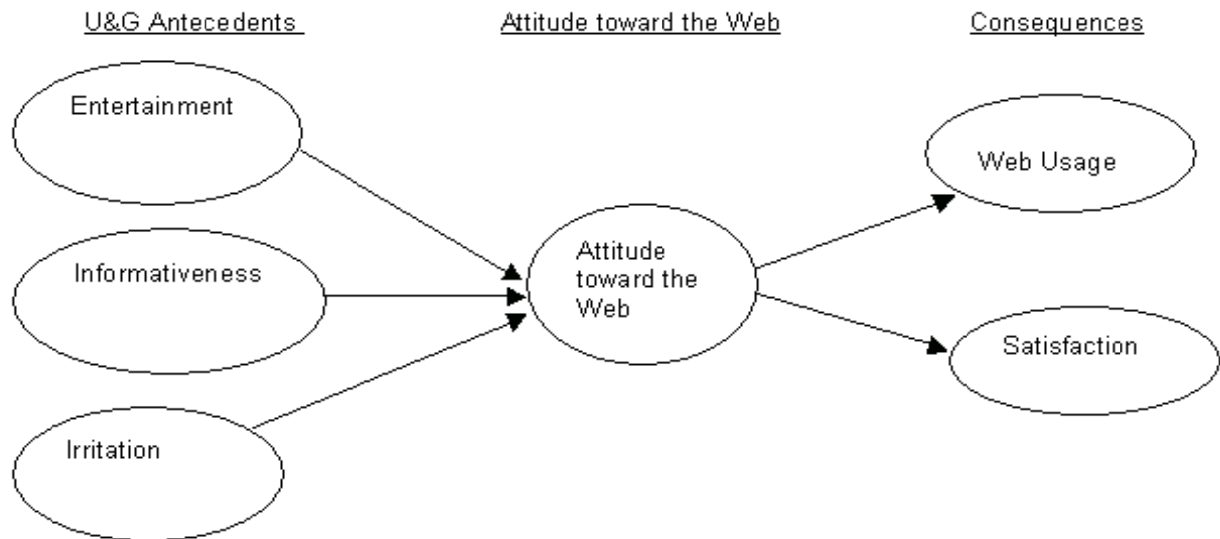
Vancouver, J., Thompson, E., Tischner, E., & Putka, D. (2002). Two studies examining the negative effect of self-efficacy on performance. *Journal of Applied Psychology*, 87, 506-516.

Wei, L., & Zang, M. (2008). The impact of internet knowledge on college students' intention to continue to use the internet. *Information Research*, 13.

Weinstein, E. A., & Deutschberger, P. (1963). Some dimensions of altercasting. *Sociometry*, 26, 454-466.

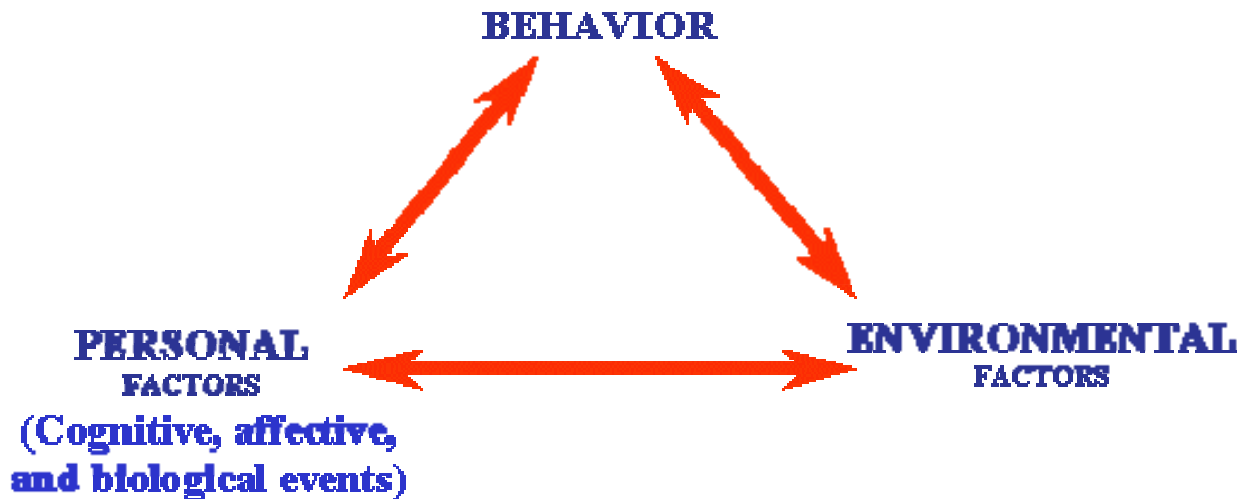
Appendix

Figure 1.1: Uses and Gratification Research Model



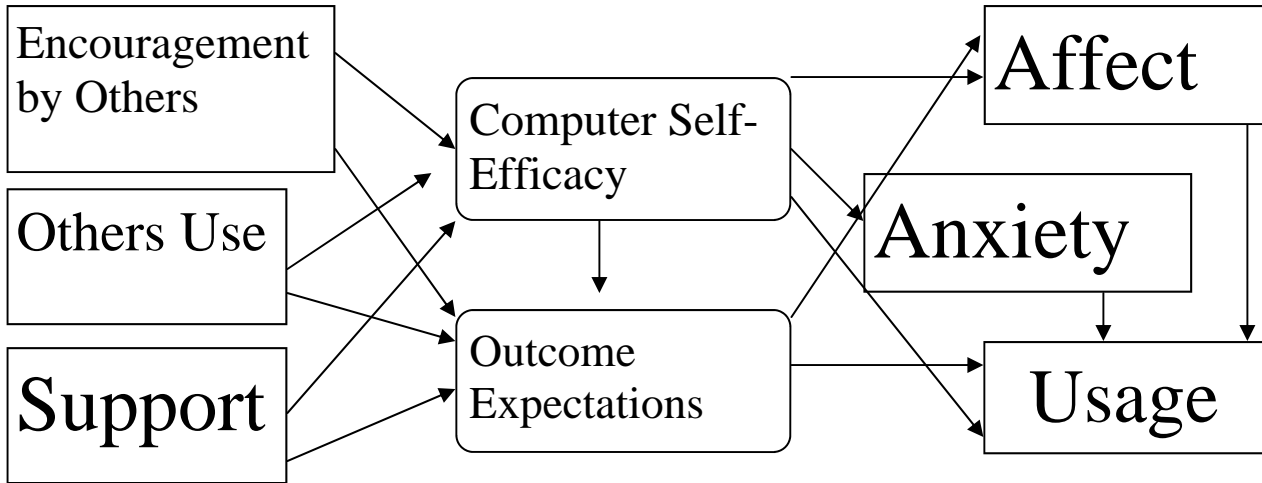
Source: Luo, 2008

Figure 2.1: Social Cognitive Theory



Source: Compeau & Higgins, 1995

Figure 2.2: Compeau & Higgins Research Model



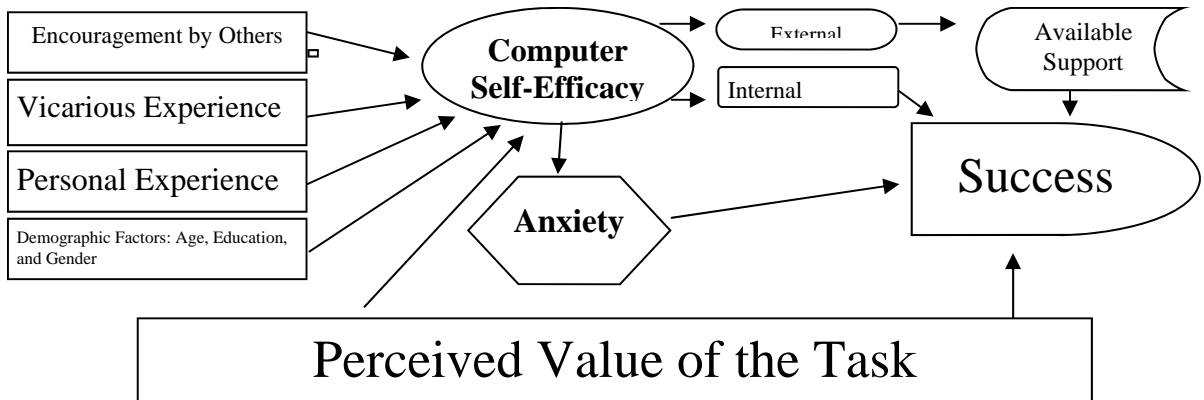
Source: Compeau & Higgins, 1995

Figure 2.3: Internal and External Computer Self-Efficacy

	High Internal	Low Internal
High External	Likely to attempt and accomplish difficult and novel tasks with or without human support	Likely to accomplish difficult or novel tasks without human support. Unlikely to accomplish difficult or novel tasks with human support.
Low External	Unlikely to accomplish difficult or novel tasks without human support. Likely to accomplish difficult or novel tasks with human support.	Unlikely to accomplish difficult or novel tasks without human support. Unlikely to accomplish difficult or novel tasks with human support.

Source: Adapted from Thatcher, Zimmer, Gundlach, & McKnight, 2008

Figure 2.4: Computer Self-Efficacy Research Model



Source: Adapted from Compeau & Higgins 1995; and Thatcher et al.,