

## Technology and Instructional Communication: Student Usage and Perceptions of Virtual Office Hours

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### Abstract

This study examines 81 undergraduate students' perceptions of virtual office hours (VOHs). VOHs enable students to interact with their professors through Yahoo Instant Messenger from on-campus and off-campus locations. The purpose of this study is to examine college students' perceptions and usage of virtual office hours in four undergraduate courses. These students' perceptions and VOH usage were examined by focusing on the following research question, "What are undergraduate students' perceptions of virtual office hours (VOHs)?" A majority (70 percent) of the students contributed favorable responses towards VOHs. However, only 12 percent of the students in this study actually used the VOH feature. Through this study, the authors present undergraduate college students' perceptions and usage of VOHs to communicate with faculty.

**Keywords:** virtual advising, office hours, online teaching, synchronous communication, instant messaging, hybrid courses, college students instructor interactivity, online technology, online communication

### Introduction

Current undergraduate students will continue to gravitate toward informational technologies that simplify their educational needs (Howe & Strauss, 2007). These authors predict present and future college students will be more focused on new educational technologies and less focused on traditional educational methods, leading them to recommend colleges and universities continue to monitor these individuals to see how institutions of higher education can further meet the needs of their students. As they continue to monitor students' usage of innovative technologies, colleges and universities will be able to further enhance their traditional curriculum and extend course offerings beyond the college campus (Li & Pitts, 2009).

The faculty is usually available to their students outside of the classroom during the professor's weekly office hours (Acitelli, Black, & Axelson, 2003). Despite the professor's availability during their office hours, students rarely seek help during these times (Bippus, Kearney, Plax, & Brooks, 2003; Kuh & Hu, 2001; Nadler & Nadler, 2000). Since studies indicate students are not seeking help during face-to-face office hours, then faculty, staff, and administrators may want to explore other communication methods to facilitate the communication process. Innovative (web-based) technologies (such as Yahoo Instant Messenger) are predicted to have a substantial ability to enhance the way in which faculty and students communicate with one another (Li & Pitts, 2009). VOHs provide faculty and students another way to converse with each other outside of traditional office hours. The professor decided to utilize Yahoo Instant messenger to communicate with her students during VOHs because the software is available in web-based (does not require a download) and face-to-face formats (requires a download). Many students use the campus computers and software downloads are usually prohibited, therefore the web-based Yahoo Messenger would be a better option for these students.

The purpose of this study is to examine college students' perceptions and usage of virtual office hours in four undergraduate courses. The authors explore the use of communication technology (virtual office

hours, instant messaging, and email) as it pertains to pedagogical approach within the basic communication courses. The authors felt the need to examine the students' perspectives on the newer communication technology which is becoming more routinely offered as part of the educational environment. To delve into the purpose of the study, the authors examined the following research question, "What are undergraduate students' perceptions of virtual office hours (VOHs)?"

### **Literature Survey**

The role of new technology as a communication medium between professor and student has been noted (Li & Pitts, 2009), but instructional communication has not been applied to examine the use and impact of such technologies.

#### *Instructional communication*

The study of communication within the educational environment has increasingly shaped pedagogical literature. This study relies on a teacher-centered rhetorical framework, which acknowledges that the main difference between knowing and teaching is communication (Lane, 2008; Hurt, Scott, & McCroskey, 1978) Instructional communication, the process by which educators and students stimulate meanings in the minds of each other using verbal and nonverbal messages (McCroskey, 1968; Mottet, Richmond, & McCroskey, 2006), is changing as the landscape of higher education changes. New technological advancements within educational forums may be altering the way communication transpires between educators and students. From email to instant messaging, texts, blogs, wikis, blackboard, and social networking sites; instructional communication has moved beyond the walls of higher education. Examining this new direction in the process of communication between the educator and the student looks at the heart of the educational process and informs pedagogy and practice. Instructional communication, then, impacts the learning environment, the student/educator relationship, and the climate of the overall educational experience.

#### *The Changing Face of Higher Education*

Education was once constrained by the walls of a classroom. Instructional communication was held to the verbal message punctuated by the nonverbal delivery. Students who engaged with their professors outside of the classroom met face-to-face. The common practice of holding office hours emerged for individualized student attention outside of the classroom, including enhanced student learning, and academic advising (Wang & Beasley, 2006). However, traditional office hours are limited by location and time based on the professor's schedule (Wallace & Wallace, 2001). This can often leave students who need assistance unable to connect with their professor.

Distance education, formerly known as correspondence courses, began with the development of the postal service in the 1840s in the U.S. (Hansen, 2001). Since then, distance education morphed from mailed-in test papers, to videos, live tele-conference sessions, and then experienced an explosion with the incorporation of the internet in the 1990s.

Throughout the history of distance education, the role of instructional communication remained important. It related to all educational settings and crossed disciplinary boundaries by exploring the communication skills necessary to effectively teach. When education gained a new address beginning with www, the dynamics and scope of instructional communication shifted.

Today, courses, certificates, and entire degree programs at undergraduate and graduate levels are offered via the internet. As Ravoi, Ponton, and Baker (2008) noted 32% of U.S. adults pursuing higher education between 2004 and 2005 did so through distance courses. Additionally, the 2007 Sloan Consortium claimed 3.94 million U.S. college students were enrolled in at least one online course, an increase of nearly 13% from 2006 and as Allen and Seaman (2008) noted, that translates to 758,000 students.

There are many types of online courses today: hybrid (taught online, but requiring occasional face-to-face meetings), online (internet with no face-to-face meetings required), and enhanced (traditional on-campus course meeting face-to-face, but uses online technology to enhance student assignments, discussions, and access to course materials). The various types of courses may influence the perceptions of students and faculty members on the learning environment.

Educators within the online environment tend to see their role as less of the disseminator of knowledge and more as the facilitator of the learning process (Howell, Saba, Lindsay, & Williams, 2004). The instructor has shifted within online education and is not the sole measure of course effectiveness in the online arena (Kelly, Ponton, & Ravai, 2007), where students rank the course structure, activities, and

organization as strong factors in the learning process (Ko & Rossen, 2004; Laurillard, Stratfold, Luckin, Plowman, & Taylor, 2000; Palloff & Pratt, 2001).

Lim, Kim, Chen and Ryder (2008) found that students in online courses ranked the quality of learning and quality of the communication with the instructor higher than a traditional, on-ground course. Additionally, high levels of interaction with the instructor leads to higher levels of student performance and more positive attitudes in online courses (Durrington, Berryhill, & Swafford, 2006). The interaction between educators and students can be greater online than with that of the on-campus class (Gilbert & Moore, 1998; Jarvela & Hakkinen, 2002).

Many studies have examined faculty and their relationship to online instruction (Betts, 1998; Bower, 2001; Berge & Muilenberg, 2001; Oomen-Early & Murphy, 2009; Shelton & Saltzman, 2005; Schifter, 2002; 2004). Such studies examined the faculty members' motivation, impact, desire, and feelings about teaching online. As Meloncon (2007) noted, the preparedness of the faculty member bears heavily on the success of an online, hybrid or enhanced course. Developing an online course, for some faculty members, was described as "intimidating, formidable challenges" (Zsohar & Smith, 2008). A large component of online instruction remains the relationship between the educator and the student. Some instructors are employing communication technology in their face-to-face, hybrid, and online classes to further extend the teacher/student relationship.

### *Communication Technology*

There are many types of communication technology and a variety of specific programs that exist for students to interact with instructors:

- Email: Messages sent to one or more users through electronic forums.
- Instant messaging (IM): Synchronous communication carried on through a variety of host sites or programs. Can happen individually or as a group.
- Texting: The use of cell phones to write and send messages to one or more people.
- Video conferencing: The use of webcams or other electronic recording media to conduct a course (Koeber & Wright, 2008).
- Podcasting: Recording voice to audio files which can be downloaded and listened to via portable devices (mp3s) and which can be used in the transmission of course materials (Ormond, 2008).
- Blackboard: University-adopted web framework for courses. Can involve many additional add-on tools which can offer live chats, IM, email, messages, and posting of announcements.
- Social networking sites: Web sites designed to connect people together and through which email messages, IMs, and posts can be used to communicate. Examples include facebook, myspace, linkedin, and twitter.
- Wikis: A web communication/collaboration tool used to engage students within a collaborative environment (Parker & Chao, 2007). Web site content can be simultaneously modified by the site visitors.

The majority of communication tools only requires users to register to gain free access to web sites or is included within the student technology fees (Blackboard). Though some universities restrict social networking sites (myspace, facebook), these communication tools are becoming increasingly accepted and integrated into the higher education community (Boostrom, Kurthakoti, & Summey, 2009; Gainer, 2008; Santovec, 2006; Towner, VanHorn, & Parker, 2007). Such communication tools, recently highlighted in *Online CI@ssroom's* special report, enable instructors to build community amongst students in their classrooms and to foster collaborative learning (Humbert, 2009) and combat isolation in online courses (Shank, 2009).

"When instructors support and actively use the technologies in the classroom, students are much more actively engaged in using the online technologies in and out of the classroom" according to Hugenberg and Hugenberg (2007, p. 9). This presupposes both an instructor's familiarity with and endorsement of said technology as well as the student's access, comfort, and desire to utilize that technological tool. Communication technology, then, plays many roles within a course and can both influence and be influenced by the pedagogical design of the professor.

## Theoretical Framework

The Social Presence Theory (Short, et al., 1976) was essential when conducting the review of the literature and preparing the surveys. Social presence is defined by Short et al. as “[t]he degree of salience of another person in an interaction and the consequent salience of an interpersonal relationship” (p. 65). Social presence theorists also assert that each communication media differs in their degree of social presence. These degree variations determine how participants will act. As a result, it seems that as a person learns how to use a particular technology (i.e. – instant messenger), the more likely the person is to participate in frequent interactions with others through that technology.

The theorists also concluded that face-to-face communication is the most “socially present” communication media. Most studies of social presence in online environments focus on participants’ perceptions (Tu, 2002). The study will follow the path of most social presence studies that focus on online technology and will be centered on undergraduate students’ perceptions of communicating with their professor during VOHs (via instant messaging software).

## Methods

We utilized a phenomenological research design to examine the undergraduate students’ perceptions of virtual office hours to communicate with their professor (through instant messaging software). The participants included 81 undergraduate students from a mid-sized institution in central Texas.

Phenomenology is defined as a method that looks at the actual experiences of people who have experienced a certain phenomenon (Lichtman, 1996). Gall, Gall, and Borg (2006) also contributed to this definition of phenomenology and stated “[phenomenology] is the study of the world as it appears to individuals when they place themselves in a state of consciousness that reflects an effort to be free of everyday biases and beliefs” (p. 600). Therefore, phenomenology functions both as a philosophy and as a method.

Results were gathered from undergraduate students attending a mid-sized institution in central Texas, with slightly over 6,500 students in a rural town outside of a major metropolitan area. Ethnicity of the student population for the 2005-2006 academic year was 83.4% Caucasian American, 7.5% Hispanic American, 6.3% African American, 1% Native American, and .9% Asian American. Over 21.3% of students are enrolled part-time and 35.8% receive Federal Pell Grant funds. This university is classified as a Carnegie Master’s Large institution (Educational Trust, 2007). On average, there are 25 or less students in each classroom at this university.

### *Participants*

This study includes 81 undergraduate students from three sections of an introductory communication course and one section of an upper-level communication course during the Fall 2008 semester. Males represented 45% of the participants in this study and females represented 55% of the participants in this study. The students in the three lower-level communication classes represented over 20 different majors, which ranged from biology and health/kinesiology to agricultural sciences and dance. Students in the upper-level communication class were communication and marketing majors. Students from both courses used the learning management system Blackboard (version CE 6) to post discussion board responses, complete assignments, and to receive grades. Most of the participants in this course were comfortable with using online technology through blackboard.

Students enrolled in these four courses were given the option to download Yahoo Instant Messenger and to interact with their professor during office hours. Given this option, students could either physically or virtually converse with the professor the office hour period. Typically, students who needed to complete a test or turn in homework would visit the professor during face-to-face office hours. Students who used VOHs would request help from the professor when they experienced trouble finding sources on the databases, wanted to notify the professor about a sickness/absence, or needed clarification on assignments. Blackboard e-mail was the most used form of communication. Using this communication technology, students asked questions pertaining to their grades and the location of a blackboard assignment.

### *Instrumentation*

After gathering research for this study on VOHs, the authors developed a questionnaire consisting of several survey questions. This questionnaire, “Your Opinion of Virtual Office Hours,” featured the following qualitative survey question: “I like or dislike the concept of virtual office hours because...” The readability of the questionnaire was affirmed by 55 undergraduate students in a prior semester (Spring

2008). The survey questions were uploaded to Blackboard under the assessment section for each of the four communication courses.

#### *Data Collection and Analysis*

Students in each of the four communication courses were required to complete the qualitative questionnaire on Blackboard for a grade (whether they used the IM technology or not) and given a two-week time frame to complete it.

This survey was analyzed using Weft QDA, an open-source qualitative research computer program. “Data analysis involves working with data, organizing them, breaking them into manageable units, synthesizing, searching for patterns, discovering what is important and what is to be learned, and deciding what you will tell others” (Bodgan & Biklen, 1998, p. 157). Following these researchers’ recommendations, data was sorted, analyzed, organized, and reorganized searching for patterns and themes. Investigator triangulation (Denzin, 1978), which involves multiple researchers in an investigation, was used as a strategy to ensure the placement of the participants’ responses matched the categories initially determined. To triangulate the categorizations, two educators reviewed the same student responses and created categories based on their own perceptions of themes and patterns. After categorization was complete, all of the categories were compared and were similar to original categories.

### **Results and Discussion**

Each of the 81 participants responded to the “Virtual Office Hours” questionnaire. The following categories emerged during the course of the study: student usage of VOHs, students who hope other professors will use VOHs, students’ suggestions regarding additional communication technology, and students’ likes and dislikes of VOHs.

#### *Student Usage of VOHs*

In the semester that the study was conducted, 12 students (19.95%) in this study used VOHs. While some students decided to use the VOHs, 63 students (80.05%) decided not to use this feature. Therefore, it seemed important to discover why some students chose to use VOHs and why some students decided not to VOHs.

Students’ comments regarding their usage of VOHs are divided into three categories: (a) students who indicated they liked VOHs and (b) students who indicated a neutral stance towards VOHs, and (c) students who indicated they did not like VOHs. The students who indicated that they liked VOHs contributed slightly 51 responses, students who indicated a neutral stance towards VOHs contributed 10 responses, and students who indicated they did not like VOHs contributed 11 responses.

#### *Students Who Liked VOHs.*

Seventy percent of the students in the study liked VOHs because the feature provided them with various benefits. Benefits ranged from “more opportunities to communicate with their professor” and “easier to contact professor” to “convenient” and “more comfortable to talk to the professor via instant messenger.” Categories and frequencies of the students’ positive responses regarding VOHs are highlighted in Table 1.

*Table 1. Students’ Favorable Responses Regarding VOHs*

Categories of Responses	Number of Responses
Easier to contact professor	15
Increased opportunity to communicate	11
VOHs are more convenient	22
Immediate response	3
Total Number of Responses	51

*Easier to contact professor:* Fifteen students felt VOHs provided an easier way to contact their professor. Some students reported work schedules, school schedules, and commuting which conflicted with office hours. Therefore, these students indicated it was easier to contact the professor through virtual office hours.

The practicality of VOH was a benefit noted by students. One student stated, "I like them because if you really needed to talk to them and you were already out of class, then it would be easy to reach your professor through the virtual office hours." Two additional students stated, "I liked knowing that I could contact [my professor] during office hours even if I wasn't able to make it to campus during office hours" and "[I] like it because it[']s easier to get a hold of teachers who have office hours that clash with your other classes or you[r] work."

Another student stated, "I like it because I can contact the professor without having to take time out of my day to meet them or make an appointment." While this student felt VOHs provided an easy method to communicate with the professor, another student felt VOHs provided an easier way to contact the professor. This student stated, "I like it because sometimes it makes it easier to get in touch with a [professor]; however, I like having face-to-face office hours during the day because it is more personal."

*Increased opportunity to communicate:* Eleven students indicated they liked VOHs because this feature provided each student with more opportunities to communicate with their professor (inside and outside of office hours). One student stated, "I like the concept because it is a new way of getting in touch with your teacher." While this student contributed a comment on the novelty of VOHs, another student provided a comment on the availability of the professor through VOHs, "I like them because it makes the professor constantly available for the students."

*VOHs are more convenient:* Twenty-two students contributed responses focused on the convenience of VOHs. A few students stated they liked VOHs because they are not able to attend the face-to-face office hours. One student stated, "I think that it's a good idea to have that option for students. Most students work and have other classes, so it's good that they could get ahold [sic] of someone at night."

Chatting with their professor from the convenience of their residence was a preference of some students. One student stated, "[I]t is an easier and more convenient way to communicate with professors. You can ask your professor questions without having to leave your computer." An additional student felt VOHs were convenient, because they enabled him to communicate with the professor while working on other tasks at home or at work. This student stated, "I like them because it is much easier to talk with a professor online in the comfort of your own home while you work on a project as opposed to meeting with them in person."

Other students liked VOHs because the feature enabled them to communicate with their professor outside of the specified face-to-face office hours. One student stated, "It[']s really good for us as students to talk to our professors after hours." Another student stated, "I like the virtual office hours because [I] can talk to you when [I] would not have time during the day to [talk with you]."

Several students contributed responses that were focused on driving to campus to attend face-to-face office hours. These students felt VOHs enable them to communicate with their professor without driving to campus. One student stated, "[I] like them because [it is] a lot easier to just email something you need [assistance] on rather than get in car and drive to the office and hopefully the professors not busy[.] It [i]s just a lot easier and more [convenient]."

An additional student contributed a response on driving to campus to meet with their professor. This student stated, "I like it, I live [off] campus and sometimes it's hard to get back to school with my schedule. Online hours are more [accessible] for me." Another student stated, "It gives us the opportunity to ask a question when we think of it. If I had to drive to campus to ask a question that takes [five minutes] to ask I would most likely just [forget] about it." While the students who contributed the prior comments had internet access at their home (or residence hall), one student did not have continual access to the internet. She stated, "When I do have access to the internet, I don't have to leave my own home to ask questions about class. It[']s just so much more [convenient] if you do have access to the internet where you live."

Some students felt VOHs were convenient because they did not have to schedule an appointment with their professor or to attend the professor's set office hours. One student stated, "I like it because it helps

students[.] A lot of students don[']t like to find their office and have a formal sit down meeting.” Another student had the same feeling about VOHs, “I like the concept [because] you don't have to set up an appointment and go to an office to talk to somebody. It gives you more of a chance to talk to a professor.”

Two students contributed interesting responses focused on VOHs and success. One student stated, “I like because it gave me a chance to speak to [the professor] without having to stop studying for an assignment and really does need an appointment to contact her.” The second student stated, “It makes it more convenient for the student to get in touch with the professor. Office hours are not always convenient for the student therefore it gives us a chance to succeed.”

*Immediate response:* Three students stated that they liked VOHs because the feature provided them with immediate responses to their questions. One student stated, “I like it b/c again there are some question[s] that demand answers [immediately].” Another student stated, “I really like it because a lot of the time, your questions for your professor occur outside of class while doing homework or projects. It is very helpful to be able to sign on to a messenger and be able to ask questions and get responses immediately.” While these students liked immediate responses, another student liked VOHs more than e-mail. This student stated, “Easy to use and instant you don[']t have to wait for an email.”

*Students who did not use VOHs, but think the concept is a good idea:* Four students contributed comments focused on the benefits of VOHs, but did not use the feature this semester. One of these students stated, “[i]t seems like a good idea[,] but [I] don't have an IM.” While this student did not have the instant messaging software to use the VOHs, another student had a work-related barrier to using the VOHs. This student stated, “I like it. I wish I could have used it, but I was working.” An additional student had work and commuter related barriers to using VOHs. This student stated, “Even know I did not use it I like it more than office hours... It[']s just easier and more [convenient]... It[']s hard to make to time to go to office hours when you work a[]lot and commute like I do.” Another student thought the feature was a good idea, but only used the internet when working on class assignments. This student stated, “I think [it's] a good idea[,] but I don't use [IM] and I only have [internet access] when I come to the library to work on assignments.”

*Students Who Were Neutral about VOHs:* Students who indicated a neutral stance towards VOHs contributed 10 responses in this category. These students provided responses which formed the following categories: (a) preferred face-to-face communication with their professor, (b) technological difficulties, and (c) preference of VOHs or face-to-face communication depends on the student's schedule and location. Categories and frequencies of the students' neutral responses regarding VOHs are highlighted in Table 2.

Table 2. Students' Neutral Responses Regarding VOHs

Categories of Responses	Number of Responses
See the benefits of VOHs, but prefer face-to-face communication	6
Experienced technological difficulties	2
Preference towards VOHs depends on the students' location and schedule.	2
Total Number of Responses	10

*Preferred face-to-face:* Six students focused on the benefits of VOHs, but they preferred communicating with their professor in a face-to-face format. One of these students stated, “[T]he concept is okay, but [I] prefer to communicate face-to-face [with the professor]. [T]hings seem to “get done” [sic] more easily when communicating in this manner.” Two additional students had this preference as well. A student stated, “I like the idea but [I] really like talking face[-]to[-]face.” Another student indicated preference toward face-to-face communication, but acknowledged potential scheduling conflicts. This student stated, “[I am] neutral, [because] i'd [sic] rather talk face[,] but [I] know that isn[']t possible sometimes because everybody is so busy.” One student focused on the benefits of having VOHs in the event she was involved in an emergency. This student stated, “I like it because [VOHs are] there in case of an emergency[,] but [I] prefer just to meet face[-]to[-]face.”

*Technological difficulties:* Two students contributed responses focused on technological difficulties that prevented them from using the VOHs. However, these students also stated the VOHs were a benefit to those who did not experience these difficulties. One student stated, “[I]t would be [convenient] for someone that has good internet connection”. Another student did not indicate an opinion towards VOHs, but simply stated, “[I] do not have the internet.”

*Preference based on schedule and location:* Two students provided comments stating their preference towards VOHs was dependent on their location and schedule. One student stated:

[If I] liv[ed] close to campus[,] I would prefer face-to-face office hours. [H]owever, [I] think it is a good idea to have virtual office hours for those [who] aren't so close to campus.

While this student thought VOHs were beneficial for students who did not live close to campus, another student experienced time conflicts with the scheduled office hours. This student stated, “I am neutral. If I was at my computer at the same time, I might consider using [virtual] office hours.”

*Students Who Did Not Like VOHs:* Eleven of the 81 respondents to the questionnaire provided responses focused on the negative aspects of VOHs. These students’ responses emerged in the following categories: (a) preferred face-to-face over VOHs, (b) did not have access to a computer to use VOHs, (c) usage of VOHs depends on the circumstance, (d) VOHs were not helpful. Categories and frequencies of the students’ critical responses regarding VOHs are highlighted in Table 3.

Table 3. Students’ Unfavorable Responses Regarding VOHs

Categories of Responses	Number of Responses
Preferred face-to-face communication over VOHs	6
Did not have access to a computer to use	2
Usage of VOHs depends on the circumstance	1
VOHs were not helpful	2
Total Number of Responses	11

*Preferred face-to-face communication:* Some students preferred face-to-face communication with their professor. These students contributed six responses focused on the impersonal nature of VOHs. One of these students stated, “I would rather talk to my professor face[-]to[-]face.” Another student preferred speaking with their professor in a face-to-face format. This student stated, “...because I prefer getting to speak face-to-face with someone. I don't like the feeling of not taking time to meet with someone face-to-face because another way is more convenient.”

One student provided comments centered on the difficulty of asking questions on a computer. This student stated, “I do not like it because, I would much rather talk face[-]to[-]face rather than trying to ask questions over the computer.” An additional student offered comments focused on their preference of face-to-face communication, “I am more of a one on one kind of guy. I like to look [the professor] in the face and tell [them] stuff instead of over the phone or email.”

*Lack of access:* A couple of students stated they did not like VOHs because they did not have access to a computer to use the feature. One of these students stated:

[A majority] of the semester I was without access to the internet, I would always have to ride my bike all the way to campus and back to e-mail [the professor] (or turn in any online assignments)...

This student experienced transportation-related barriers that prevented her from communicating with her professor via VOHs. She also contributed another comment centered on technological barriers that prevented her from using the VOH feature:



[S]ince the computers at the library [will not] let you get any type of messenger, I could not use the virtual office hours. I don[']t have a laptop or I would have taken it to the school so that I could get IM.

*Usage of VOHs depends on the circumstance.* One student contributed comments centered on the circumstantial nature of using VOHs. This student stated why he did not use VOHs:

Just because it is not personal. I think that if you were just asking a question about an assignment it would be okay. But if you want to talk about your grade or progress it would be better face-to-face.

This student felt VOHs were beneficial for some questions a student might have about course content, but were not beneficial for other questions.

*Not helpful:* Two students did not like VOHs because they felt the feature was not helpful. One student stated, "I dislike the virtual office hours because they did not help me in any way." Another student stated, "I dislike the concept of virtual office hours because it is difficult for me to understand conversations. However, for some students it is ideal." Both of these students felt VOHs did not provide them with answers to their questions pertaining to the course.

More students used VOHs than face-to-face office hours. Throughout the Fall 2008 semester, only three students actually visited the professor during office hours. While all students did not take advantage of VOHs, of those students who did utilize office hours, more used VOHs than face-to-face office hours.

### Conclusions

Seventy percent of the students' responses in this study were favorable toward VOHs. Therefore, most of the students in this study seemed to like the VOH concept and they like the option of using the feature. Sixteen percent of the students' responses in this study were neutral towards VOHs and fourteen percent of responses emerged in the unfavorable category of VOHs. It seems that students in this study like the concept of VOHs, but are not using the feature (only 12 percent of the students in this study indicated they actually used VOHs).

Most of the students' who indicated a preference towards VOHs provided responses that emerged in the convenience category. These students responses were focused on the convenience of communicating with their professor while sitting in the comfort of their own home/work setting, not having to schedule a meeting time, and communicating with their professor outside of normal office hours. Most of the students who indicated a neutral stance towards VOHs contributed responses centered on the benefits of VOHs, but these students also contributed responses on the benefits of face-to-face communication. Other students who indicated an unfavorable stance towards VOHs felt face-to-face communication was better than communicating with their professor in a VOH setting.

Some students contributed some interesting responses. One student liked VOHs, because "there are some questions that demand answers immediately." Another interesting finding was on the students' preference of using regular e-mail. In addition to the prior comments, only one student stated they would rather use regular e-mail instead of blackboard e-mail, face-to-face communication, or VOHs.

Overall, the students' responses offered a glimpse into their perceptions of VOHs and their preferred method of communication when conversing with their professor. Each student had the option to communicate with their professor using Yahoo Instant Messenger (VOHs) during her face-to-face office hours. Although only 12 students (19.5%) in this study took advantage of VOHs, over 70% of the students in this study offered favorable responses for VOHs. While every student does not take advantage of VOHs, this new method of teacher/student communication is a valuable addition to traditional communication methods.

### Implications

This study offers several suggestions for college/university administrators, faculty, staff towards implementing and sustaining communicating with students through VOHs. Larger implications loom regarding the use of IM as a key feature of a classroom and its role is shaping both instructional communication as well as pedagogy. As stated, instructional communication explores the communicative interaction between instructor and student. The results suggest that faculty members interested in using IM should explore the impact this new communication technology may have on the students' perceptions

of the faculty member and how this may carry over to the instructional environment. To this end, four key areas of implications emerged: Structuring VOHs, guidelines of use, boundaries, and image

*Structuring VOHs:* Some faculty who are interested in offering VOHs to their students might want to start offering VOHs one day a week, then expanding their VOH schedule depending on demand. Faculty who have demanding research or teaching schedules may want to assign several former (or current exemplary) students to serve as VOH liaisons to offer more VOHs to students.

*Guidelines:* Some students in this study indicated a fear of communicating with their professor during VOHs because they did not know how to start the conversation. As a result, faculty members may want to ease the concerns of their students by offering them "best practices" for VOHs (i.e. - how to start a conversation with your professor on VOHs). In addition, some faculty might feel more comfortable using VOHs if they made an addendum to their course syllabus containing rules/guidelines for VOH use.

*Boundaries:* Professors who use VOHs need to caution themselves from becoming 24 hour professors. A 24 hour professor is a faculty member who remains available to their students a majority of the day and night. As a result, this type of professor might not have a strong work/life balance. To prevent themselves from falling into the "24 Hour Professor Syndrome," they should post specific office hours on their syllabus and adhere to those hours. This enables students to expect when the professor will be online and offline. Professor might want to use the invisible setting on Yahoo Instant Messenger, which enables them to see who is online while not appearing to be online.

*Image:* Professors should also think before they communicate with students during VOHs. Using VOHs may positively or negatively impact the student-professor relationship and should involve "best uses" for professors. Example: using text abbreviations, poor grammar, etc. may change the way students view the professor (as can their avatars, emoticons, etc.). The view of the faculty member may be further impacted by changes in status which may be inappropriate for students. Additionally, students should be made aware that their own status is visible and may shape the faculty member's perception of the student.

### Suggestions for Further Research

VOHs seem to be beneficial for today's technology savvy, working, commuting college student. This study examined the perceptions of 81 college students attending a rural mid-sized institution of higher education in Texas. In addition, segmenting the differences based on classification, course difficulty, and/or major. This study could be replicated with graduate students, particularly online doctoral students. The impact of other online technologies, like twitter, should be further explored to determine how such technologies could potentially impact technological advances in academia. Future researchers could also explore whether or not the digital divide during a child's formative year has an impact on college student perceptions.

Future research studies on this subject might want to focus on the institutionally-based differences in student perceptions (i.e.: historically black colleges and universities or historically white colleges and universities, commuter and residential campuses, and rural and urban locations). In addition, future researchers might want to utilize an experimental research design (one class would use VOHs and one class would not have access to the communication feature). Research from the professors' perspective to examine their perceptions of VOHs is also encouraged. Additional research may delve further into the impact the use of varying communicative technologies may have on the student-professor relationship and ways these new technologies are being considered pedagogically.

The use of IM and other technological communication tools are expanding within the educational arena. More research is necessary to determine the overall educational impact of the incorporation of new communicative technologies on both the learning environment and the student/professor relationship. Specifically, future studies may examine the extent of student need/demand for online communication (VOHS, etc.) and discover the extent to which the students are familiar with or use IM in their daily lives.

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