

Online Human Touch (OHT) Instruction and Programming: A Conceptual Framework to Increase Student Engagement and Retention in Online Education, Part 1

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Abstract

The long-term sustainability of online degree programs is highly dependent upon student enrollment and retention. While national growth in online education has increased approximately 10% between 2005 and 2006 to 3.5 million students, student attrition in online programs remains higher than on-campus traditional programs (Allen & Seaman, 2007). To proactively address student attrition, the Master of Science in Higher Education Program at Drexel University has developed and implemented the concept of Online Human Touch (OHT) instruction and programming. This interactive and personalized approach to online education has resulted in high student retention rates and high levels of student satisfaction. This article is the first of a two-part series that focuses on OHT in online education.

Key words: Online education, distance education, instruction, engagement, retention, attrition, online communities, work-integrated learning, and communication

Introduction

The conceptual framework for Online Human Touch (OHT) instruction and programming was developed in 2005 to proactively meet the needs of a new, fully online Master of Science in Higher Education (MSHE) Program in the School of Education at Drexel University. Since the student market segment for the MSHE Program was and continues to be higher education administrators working throughout the United States and abroad, it was imperative that the instruction and programming a) actively engage students, b) incorporate work-integrated learning, c) foster and support community development, and d) personally connect students to Drexel University as future alumni. Furthermore, the OHT concept was developed to strategically assist with student retention since national online attrition rates range from 20% to 50% (Diaz, 2002; Frankola, 2001) and even as high as 70% to 80% (Dagger & Wade, 2004; Flood, 2002).

The OHT concept asserts that students are more likely to persist in an online program if they are engaged in and outside of their courses and if the educational experience is personalized. This involves much more than simply having students participate in discussion boards, receive emails from faculty, or work in online groups. The OHT concept is a holistic approach that builds upon the program director, faculty, adjunct faculty, and staff developing a personal connection between Drexel University and each student. The OHT concept begins with the first point of contact that the MSHE Program has with a potential student during the application process. It is a bond based on human interaction fostered through instruction, programming, and personalized engagement with potential students, matriculated students, and alumni.

Over the past 3 years, the OHT concept has continued to evolve through the emergence of new technologies and data collected from MSHE students, faculty, adjunct faculty, and staff. Moreover, policies, procedures, and guidelines that support the OHT concept have been developed for faculty and staff to integrate into all aspects of the MSHE Program (i.e., recruitment, advising, orientation, instruction, events, etc.). To date, the implementation of OHT instruction and programming has been successful. Since fall 2005, the MSHE Program has grown from its first cohort of 26 students to 145 students in spring 2008. The overall average student retention rate for the past three years is 83% which

is higher than many on-campus programs. MSHE alumni are also actively involved in alumni groups across the United States and often serve as guest speakers for MSHE online courses and events.

Review of Literature

The proliferation and increasing affordability of technology is providing new opportunities for individuals seeking higher education degrees. In fact, online enrollment is outpacing overall higher education student enrollment rates in the United States. According to *Online Nation: Five Years of Growth in Online Learning* (Allen & Seaman, 2007), the enrollment rates for online education in fall 2006 increased 9.7% while there was only a 1.5% enrollment increase across the entire higher education student population. Data also reveals in fall 2006 that nearly 20% of all higher education students in the United States were taking at least one online course (Allen & Seaman, 2007).

National data relating to online student attrition is limited. According to Eduventures (2007), "Program-level online student retention and completion data in the public domain is almost non-existent. Delivery mode is not a variable used by the National Center for Education Statistics, the main source of retention and completion data for U.S. higher education" (p. 4).

Data regarding online student attrition varies. Online attrition is often cited as 20% to 50% within the literature (Diaz, 2002; Frankola, 2001). However, the literature also reveals that attrition can be as high as 70% to 80% (Dagger & Wade, 2004; Flood, 2002). There are other publications that cite online attrition to be 10% to 20% higher than traditional on-campus programs (Angelino, Williams & Natvig, 2007; Carr, 2000). According to the National Center for Educational Statistics, the national six-year graduation rate for traditional on-campus programs is 58% for undergraduate students (Knapp, Kelly-Reid, Ginder, & Miller, 2008) which equates to 42% attrition. By combining national undergraduate attrition data (NCES, 2008) and online attrition estimates (Angelino, Williams & Natvig, 2007; Carr, 2000) then the national online attrition rate would be approximately 52% to 62%. This means that institutions are losing half or more of all students who enroll in online programs.

Why do online students leave? Online education provides many challenges to students including isolation and feeling disconnected (Angelino, Williams, & Natvig, 2007; Bathe, 2001; Stark & Warren, 1999). The literature also indicates that a lack of personal interaction and support are major reasons that lead to student attrition (Moore & Kearsley, 1996). Additionally, online students are not land locked to a given geographic area. Therefore, if students are not satisfied or decide they would like to enroll in a different program, other nationally accredited degree programs are just *one click away*.

OHT Instruction and Programming Concept

In an effort to proactively address online attrition and create a lifelong bond with future alumni, the OHT instruction and programming concept was developed and implemented within Drexel University's MSHE Program. This personalized approach to online education has resulted in continued program growth, financial sustainability, high student retention rates, active alumni participation, and national recognition for best practices in online education by the United States Distance Learning Association (USDLA) in April 2008.

The conceptual framework supporting the development of OHT instruction and programming builds upon five areas of research including:

I. Student Engagement

(Astin, 1984; Chickering & Gamson, 1987; Tinto, 1975, 1993);

II. Community Development

(Johnson, 2001; Palloff & Pratt, 1999; Stanford-Bowers, 2008);

III. Personalized Communication

(Faharani, 2003; Kruger, Epley, Parker & Ng, 2003; Mehrabian, 1971);

IV. Work-Integrated Learning

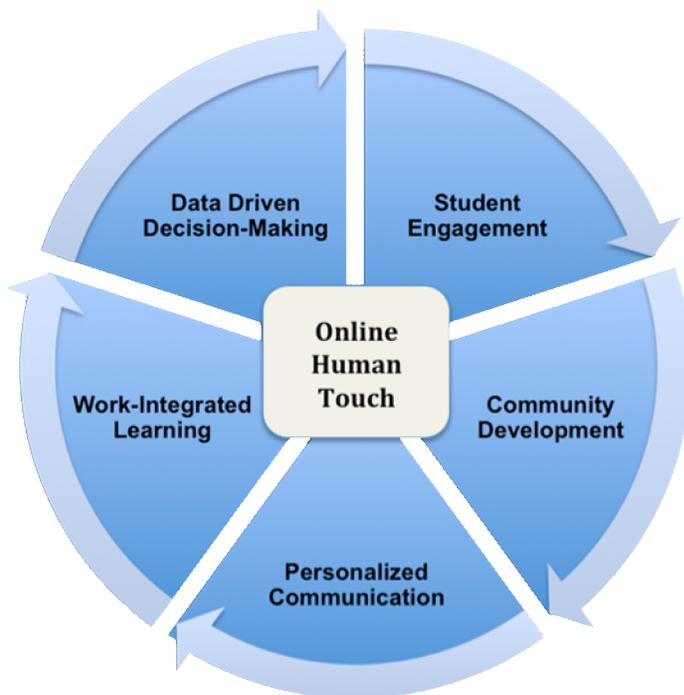
(Boud, 1991; Kolb & Fry, 1975; Milne, 2007); and

V. Data Driven Decision-Making

(Cranton & Legge, 1978; Scriven, 1967).

Figure 1 illustrates the interconnection between the five areas of research that support the OHT concept. While each area of research independently contributes to the overall student experience, it is when all five areas are strategically integrated into instruction and programming that they fully support the conceptual underpinnings of OHT.

Figure 1. OHT Instruction and Programming Concept



An overview is provided to further describe the five areas of research that support the OHT instruction and programming concept. Additionally, examples are provided to illustrate how each area of research is integrated into OHT instruction and programming to support the conceptual framework.

I. Student Engagement and OHT Strategies

The OHT concept builds upon Tinto's theory of student departure (1975, 1993). Tinto's (1975) research reveals that the more students are engaged in the college community, the less likely they are to depart. Tinto identifies lack of social and academic integration into the college community as factors that lead to student attrition. Further research into student departure (Chickering & Gamson, 1987; Tinto 1993) reveals the more opportunities provided for student engagement within the college community, the more likely students will become engaged and connected which consequently can lead to greater student persistence.

Research by Chickering and Gamson (1987) identifies frequent faculty-student contact in and outside the classroom as the most important factor in student motivation and involvement. However, for fully online programs, the lack of on-campus physical attendance provides distinct challenges since this limits opportunities for student engagement and involvement. This is of particular concern since Astin's (1975) theory of involvement reveals that student departure is associated with noninvolvement on-campus.

The OHT concept extends the work of Tinto (1975, 1993, 2006), Chickering and Gamson (1987) and Astin (1984) by asserting that online students must be involved strategically in the campus community through instruction and programming to increase the likelihood of student involvement. Therefore, online

programs need to identify ways in which they can *bring the campus* to the students through innovative and personalized instruction and programming.

According to Angelino, Williams and Natvig (2007), challenges to online education include physical isolation, lack of support, and feeling disconnected. Therefore, the OHT concept promotes the development of proactive strategies that engage students in the online environment even prior to matriculation to encourage and foster student-campus connectivity. Furthermore, the OHT concept promotes integrating academic and social networking activities into courses and programming to support ongoing student-campus connectivity.

The OHT concept is employed by MSHE faculty, adjunct faculty, and staff throughout the two-year program (i.e., recruitment, advising, orientation, instruction, events, etc.). However, there is particular emphasis on student engagement and personal connection to Drexel University during the first two quarters. Since the majority of student attrition in the MSHE Program occurs within the first two quarters (87%), connecting students early to peers, faculty, adjuncts, staff, and Drexel University is critical.

Included below are four examples of how student engagement is integrated into OHT instruction and programming.

Student Recruitment: Potential students who submit inquiries and enrollment applications to the MSHE Program receive personalized email invitations to participate in Live Open Houses similar to on-campus programs. The Live Open House sessions support *human interaction* through *personal* introductions to the MSHE Program Director, Academic Advisor, current students, and alumni. Through an interactive PowerPoint presentation, potential students are engaged in polling, asking programmatic questions, and talking with other potential students, current MSHE students, and MSHE alumni. These Live Open House sessions are particularly important to cultivating a connection with potential students since less than half of the MSHE students (47%) reside in Pennsylvania and only 20% of all MSHE students reside in Philadelphia. For the majority of the MSHE students, their first time on campus is at graduation.

Student Support Services: The MSHE Program strategically integrates student support services into courses. For introductory courses, students are invited in Week 2 to attend a Horizon Wimba Live Classroom lecture where they introduce themselves to their classmates (optional voice, text, or video) and they are *personally* introduced to student support services staff at Drexel University who discuss academic services offered by their program or division. Support services staff include (a) the Information Services Librarian, (b) an Online Learning Support Specialist, and (c) a representative from the Writing Center. Each support services specialist shares a short PowerPoint presentation highlighting their departments' services and then answers questions. As students progress through the MSHE Program, they are *personally* introduced through their courses to additional student support services specialists representing the Steinbright Career Development Center, Office of Research Compliance, Office of Information Resources & Technology, and Institutional Advancement.

Links to Online Campus Events: To further connect and engage students in the campus community, students are invited by the MSHE Program Director several times during the year to participate in on-campus events that are offered online through streaming video accessible by electronic links. In fall 2007, students were invited to watch the United States Democratic debate held on Drexel University's campus. In spring 2008, students were invited to electronically attend an educational technology conference held on-campus. In June 2008, MSHE students were invited to watch Drexel University's graduation through a live link to support their graduating peers. This link enabled MSHE students who were graduating the opportunity to share this exciting event with family members and friends who were unable to attend the graduation ceremony in person but wanted to be part of the celebration.

On-campus Annual Conference: The MSHE Program offers a one-day conference at Drexel University to provide students with an opportunity to physically come to the Philadelphia campus and meet classmates, faculty, adjuncts, staff, and administrators (Dean, Vice Presidents, Associate Vice Presidents, and Directors). This one-day conference includes a welcome breakfast where all attendees introduce themselves. There are two panel presentations. The first panel presentation includes current students and alumni who discuss their experience in the MSHE Program as well as answer questions from the audience. The second panel presentation includes faculty, adjuncts, and administrators who discuss current and emerging issues in higher education. Additionally, there is a series of workshops presented throughout the day on topical issues relating to Drexel University (student and academic resources), the MSHE Program, and the MSHE academic areas of specializations (Higher Education

Administration & Organizational Management; Institutional Research & Planning; Enrollment Management; and Academic Development, Technology & Instruction). Students in the MSHE Program also have an opportunity to present workshops. The conference concludes with a campus tour and a networking reception. Students who are unable to come to campus are able to watch and participate in the panel sessions and workshops through Mediasite Live. Recorded sessions are made available to all students through the MSHE Resource Portal. The MSHE conference is being expanded to include additional online programs so students are able to academically and socially network with students outside of the MSHE Program to further foster ongoing student engagement and connectivity to Drexel University.

II. Community Development and OHT Strategies

The OHT concept asserts that community development is critical to student engagement, connectivity to the institution, and retention in online education. Therefore, administrators and faculty need to develop strategies to promote and support academic and social community development for online students. With on-campus programs there is a natural integration of students into freshmen seminars, core courses, or assigned rooms in resident halls that typically support community development. However, in the online environment, community development must be strategically integrated into instruction and programming. As stated by Palloff and Pratt (1999):

It is really up to those of us involved with the use of technology in education to redefine community, for we truly believe we are addressing issues here that are primal and essential to the existence of electronic communication in the educational arena. (p. 23)

The OHT concept builds upon the research of Johnson (2001) and Stanford-Bowers (2008). Literature for on-campus traditional education programs indicates that student retention is linked to student integration into the campus community and the first year experience (Angelo, 1997; Tinto, 1982; Kuh, 2003). According to Johnson (2001), student retention is linked to engagement in the learning environment beginning the *first month* on-campus. Furthermore, Johnson (2001) states, "The chances of staying beyond the first year rise as connections are made and academic and social integration are achieved" (p. 220). Within online education, research by Stanford-Bowers (2008) indicates that building community online is crucial for influencing student persistence but just being part of an electronic learning environment does not guarantee community.

The OHT concept extends the research by Johnson (2001) and Stanford-Bowers (2008) and asserts that community development begins with the recruitment process and continues through matriculation and graduation. Moreover, the OHT concept purports that students should be engaged in numerous academic and social communities throughout their enrollment to create a sense of inclusion. These diverse communities increase online student involvement and connectivity which can increase retention and ultimately alumni engagement.

The OHT concept asserts that students must be presented with community development opportunities through courses and extra curricular activities. These academic and social communities should encourage and support student interaction on a weekly, monthly or quarterly basis depending upon the particular community. In an online environment, community development relies heavily on programming, course design, and instruction. Community development is not simply developing a virtual campus or an online resource portal that includes an infinite number of electronic links to student resources and chat rooms. Online administrators must design meaningful opportunities for students to interact with their peers, faculty, adjuncts, and staff in a supportive and inclusive environment.

Included below are four examples of how community development is integrated into OHT instruction and programming.

Audio/Text Introductions: To foster community development among newly matriculated MSHE students, students and faculty are required to post audio/voice and text self-introductions in the core courses the first week of class. The self-introductory topics include name, place of residence (city/town and state), place of employment, academic background, professional focus/expertise, research interests, and hobbies/interests. Students are then asked to respond to at least two classmates during the first week of class. It is common to have over 100 posts in the first week by students who are connecting and bonding with new classmates.

Weekly Discussion Boards: To further extend community development opportunities among students, weekly discussion boards have been designed to provide unique opportunities for students to respond to sets of questions relating to current issues or to actively participate in asynchronous text or audio/voice debates and/or role-plays. Students are required to respond to classmates following their initial posting. Through these interactive discussions, academic and social communities begin to emerge as students engage with peers who share similar academic and professional interests.

Virtual Teas: Virtual teas are held through Horizon Wimba Live Classroom or in Second Life. Typically students from two or more classes are invited to discuss current/emerging higher education issues or they are introduced to new technologies. Students are sent an email invitation to attend the virtual tea. Students also are sent a signed invitation in the mail with a sachet of tea so they can join their classmates for the *virtual tea*. The virtual teas provide an informal opportunity for students, faculty, and adjuncts to interact in a relaxed environment that supports learning, engagement, and community development. Students are able to speak and text-chat with faculty, adjuncts, guest speakers, and/or their classmates while they enjoy their *tea*.

Group Assignments & Presentations: Throughout the MSHE Program students must complete group assignments that require asynchronous or synchronous presentations. In some MSHE courses students are placed in groups of two or three based on their area of professional expertise or research interest while in other courses students are able to select group participants. Assignments are “real-life” scenarios in which students must conduct research and present findings to various assigned “audiences” in a simulated role-play scenario such as the Board of Trustees, President, students, national conference, etc. Students use Camtasia or Impatica for the asynchronous presentations. Horizon Wimba Live Classroom is used for the “live” (synchronous) presentations which enables presenting groups to answer questions from the defined audience. The group assignments and presentations provide students with extensive opportunities to expand their academic and social networks.

III. Personalized Communication and OHT Strategies

Communication and engagement are essential to connecting students to an institution and increasing student persistence. According to Tinto (2006), “Frequency and quality of contact with faculty, staff, and students has repeatedly been shown to be an *independent* predictor of student persistence” (p. 2). Moreover, Chickering and Gamson (1987) state that knowing faculty and faculty concern assist students get through challenging times and enhance students’ intellectual commitment. However, in online education, frequency and quality of contact need to be defined and outlined for faculty, adjuncts, and staff. Online policies and guidelines need to be developed to establish expectations for faculty-to-student and staff-to-student communication. Additionally, faculty, adjuncts, and staff need to be trained on inherent differences between face-to-face and online communication.

Interaction in a face-to-face classroom is predominately based on verbal and nonverbal communicative behaviors (Farahani, 2003). However, in an online program communication is primarily text oriented and email is a primary form of communication. According to Mehrabian, author of *Silent Messages* (1971) and *Non-Verbal Communications* (1972), face-to-face communication is broken down into three categories: 55% is non-verbal, 38% is tone and 7% is words. Over the telephone communication is broken down into two categories: 86% is tone and 14% is words (International Customer Management Institute, 2008; Lockwood, 2008). These percentages for communication are important when considering course development for online programs particularly since non-verbal communication and tone can be limited or non-existent in asynchronous programs.

In terms of email, communicating may not be as easy as *type and send*. Kruger, Epley, Parker and Ng (2005) conducted research to examine communication and interpretation of tone in emails. The research showed that participants who sent emails overestimated their ability to communicate by e-mail and that participants who received emails overestimated their ability to interpret e-mail. According to Winerman (2006), the study by Kruger, Epley, Parker and Ng (2005) revealed that participants who sent emails predicted about 78% of the time their partners would correctly interpret the tone. The data revealed that only 56% of the time the receiver correctly interpreted the tone. Moreover, the receivers “guessed that they had correctly interpreted the message’s tone 90% of the time” (Winerman, 2006, p. 16). While email is a common form of correspondence in online education, ensuring the correct message or intended message is being sent is imperative.

The OHT concept asserts that personalized communication creates a supportive, nurturing, and respectful learning environment. Moreover, the OHT concept stresses that faculty, adjuncts, and staff

must be trained on how to effectively communicate online. Policies and guidelines must be developed to provide a foundation and framework that supports frequency and quality of personalized feedback using multiple modes of online communication (i.e., text email, audio/voice email, text discussion boards, audio/voice discussion boards, podcasts, text announcements, audio/voice announcements, phone calls, etc.). Instituting high expectations for communication, particularly personalized communication, is essential to connecting students to an institution and increasing student persistence.

Included below are four examples of how personalized communication is integrated into OHT instruction and programming.

Congratulations and Welcome Calls: When applicants are accepted to the MSHE Program, each student receives a personal phone call from the MSHE Director welcoming them to Drexel University and congratulating them on their acceptance. Within one week, another personal phone call is placed by the MSHE Academic Advisor. These calls are placed to *personally connect* the potential student to the MSHE Program and Drexel University.

Using Names in All Correspondence: MSHE policies and guidelines reinforce the importance of making students feel they are truly individuals in the MSHE Program and not just a number or attached to a cohort. The policies and guidelines strongly recommend and encourage faculty, adjuncts, and staff to refer to students by their *first name* in all correspondence (i.e., text email, audio/voice email, discussion boards, podcast critiques, phone calls, letters, etc.). The use of personal names in all correspondence is much like eye contact, a handshake, a friendly smile, or a head nod that students often naturally see in a face-to-face classroom. Developing a connection and bond with students early in their enrollment is very important since students work with the MSHE faculty, adjuncts, and staff over a two-year period.

Individualized Feedback on All Graded Assignments: MSHE faculty and adjuncts are required to provide individualized comments throughout submitted graded assignments (i.e., typed comment boxes/tracking using Reviewing in Microsoft Word or written comments using a tablet PC). These personal comments provide students with an opportunity to see what they have done well and what they need to modify. Faculty and adjuncts are also advised to use a *constructive layered approach* to providing individualized feedback on graded assignments in an effort to leave little chance for possible negative interpretation by students. The constructive layered approach provides students with (a) positive comments on overall aspects of the document, (b) constructive criticism citing specific areas that need modification, and (c) summative constructive comments that provide recommendations for the document and/or upcoming assignments. The personalized comments on each student's assignment are intended to (a) engage students in the learning and evaluation process, (b) identify areas that need improvement, and (c) motivate students to utilize the feedback.

Audio/Voice Announcements, Emails, Discussion Boards & Podcasts: MSHE faculty and adjuncts are trained to integrate audio/voice communication into the courses to personalize instruction and feedback. Audio/voice communication includes announcements, emails, discussion boards, and podcasts. MSHE policies require faculty to post several weekly announcements for students. These announcements can be a preliminary overview of the weekly lecture, commentary regarding current issues relating to the weekly lecture, reminders about upcoming assignments, a weekly wrap up that highlights the lecture and discussion board, etc. The MSHE Program encourages augmenting text announcements with audio/voice announcements since this provides faculty and adjuncts with an opportunity to *speak* to the students in the classes and adds a *human touch* to an online course that could easily be completely text-based. Individual audio/voice emails are typically sent to students by faculty and adjuncts in the first week of class to welcome students to the course. This is much like the personalized welcome students receive when they come to class on campus correlating to a virtual smile, eye contact, and handshake. Audio/voice emails are also used to provide individual and group feedback on assignments to augment written comments. It should be noted that that MSHE faculty, adjuncts, and staff are expected to respond to student emails (text or audio/voice) within 24 to 36 hours as stated in the MSHE policies and guidelines. Audio/voice discussion boards are integrated into all MSHE courses and support student debates and role-plays. Audio podcasting is a requirement for some graded assignments. For example, students are put into groups of two prior to submitting a final paper. They exchange final drafts of their papers and then record an audio podcast of their comments with detailed feedback regarding the paper. Students then send the audio podcast to their partner. The audio podcasts allow students to provide individualized and personalized feedback to their partner page by page which is similar to working in groups in a classroom setting.

IV. Work-Integrated Learning and OHT Strategies

Work-integrated learning builds upon the experiential learning model developed of Kolb and Fry (1975) that includes four points: concrete experience, observation and reflection, formation of abstract concepts, and testing in new situations. While Kolb and Fry (1975) state that the learning cycle can begin at any of the four points of the model, they recommend that the learning process start with an individual identifying an action that will be carried out and observing the effects as they relate to the action within the selected environment. Boud's (1991) research on self-assessment and reflective learning builds upon Kolb and Fry's point on observation and reflection. According to Boud (1991) self-assessment challenges students to think critically about what they are learning and to select appropriate performance standards to use in their work. Boud (1991) states that "Self-assessment encourages students to look at themselves and to other sources to determine what criteria should be used in judging their own work rather than being dependent solely on their teachers or another authorities" (p. 1).

Milne (2007) developed a model for work-integrated learning in which academics and mentors collaborate to provide student learning experiences. This work-integrated learning model expands the work of Alderman and Milne (2005), Boud (1991), Kolb (1984), and Murray (1991). According to Milne (2007):

As properly planned, designed and monitored learning experiences that expose students to professional culture and workplace practice they ensure an easier transition from study to employment as well as developing knowledge, skills, and attributes that are difficult to foster with academic studies alone. (p. 1)

Building upon the research of Milne (2007), Kolb and Fry (1975), Boud, (1991), the OHT concept asserts that work-integrated learning applied to online instruction and programming increases a student's involvement in their courses. This meaningful involvement, increases the value of the program to the students and thus increases student engagement and retention.

According to the Bureau of Labor Statistics, there are an estimated 6,000 jobs in higher education administration that will need to be filled through 2014 as a result of the growth and retirement within higher education (Leubsdorf, 2006). With the growing number of professional opportunities in higher education, there is a need for *skilled* administrators to fill these positions. Therefore, the MSHE Program has incorporated work-integrated learning into instruction and programming to provide students with the knowledge, skills, and experience needed to fill employment opportunities. OHT strategies include real-life work-based assignments, mock interviews, ePortfolios, and reflective journals and papers.

Included below are four examples of how work-integrated learning is integrated into OHT instruction and programming.

Practice-Based Assignments: All graded assignments for the MSHE Program are developed by higher education administrators and require students to address current and emerging issues through individual and group assignments. Assignments often require students to conduct strength, weakness, opportunity, and threat (SWOT) analyses or environmental scans relative to a particular issue. Additionally, students must develop PowerPoint presentations to share their findings with classmates through Horizon Wimba Live Classroom similar to when administrators or committees present to faculty, staff, the public, or the Board of Trustees. These practice-based assignments allow students to apply the skills and knowledge they are acquiring from the MSHE courses to actual problems within higher education and challenge students to identify or develop solutions.

ePortfolios: In the EDHE 606: Higher Education Career Development course, MSHE students are required to identify a "real" job posted in the Chronicle of Higher Education that would be considered their *next professional career step* upon completion of the MSHE Program. Students develop an ePortfolio that includes a cover letter for the position, resume, and professional biography. They are required also to include three to five sample documents (e.g., projects from their current employment position, papers or projects from the MSHE Program, etc.), and a list of three references. The ePortfolio is submitted to Drexel University's Steinbright Career Development Center (SCDC). Students receive detailed feedback from SCDC staff and the EDHE 606 professor regarding the ePortfolio. The ePortfolio is later required to be updated and submitted by all students as part of the MSHE master's defense. The development of the ePortfolio provides students with an opportunity to prepare for career advancement or transition into higher education.

Learning Simulation: As part of the EDHE 606: Higher Education Career Development course, MSHE students are required to participate in a mock interview using Horizon Wimba Live Classroom or Second

Life. This simulated assignment builds upon the ePortfolio that is required for EDHE 606. Once students send their ePortfolios to the SCDC, they receive an email from the SCDC stating they are finalists for the position for which they applied. The email also states students are required to present a PowerPoint presentation as part of the final interview process to serve as (a) a self-introduction, (b) highlight their professional skills and experience, and (c) state why they are the best candidate for the job. This mock interview includes a *search committee* comprising of the professor teaching EDHE 606 and a representative from the SCDC. During the mock interview, the search committee asks specific questions relating to the advertised position, the student's background, and submitted ePortfolio. The search committee completes two evaluations following the simulated interviews covering (a) the content and (b) the interview/presentation. The search committee members then send each student their two evaluations with personalized text comments and an audio/voice email providing constructive feedback.

Reflective Journals and Papers: In several of the MSHE courses, reflective journals or reflective papers are required. The reflective assignments provide students with an opportunity to share with faculty their academic and professional development throughout the course. The reflective journals provide a more informal and personalized format that enables students to self-evaluate their own learning. An evaluation criteria for the journals provides students with an outline of what to include in the reflective, self-assessments including meeting expected outcomes, the acquisition of knowledge and skills from course lectures, newly honed skills from experiential learning, etc.

V. Data Driven Decision-Making and OHT Strategies

The OHT concept builds upon research by Cranton and Legge (1978) and Scriven (1967) that focuses on the importance of evaluation and need for data driven decision-making in higher education. According to Cranton and Legge (1978), "evaluation can be discussed along two major dimensions: formative versus summative and internal versus external" (p. 464).

Formative evaluation is conducted during a program to assist with development and improvement (Scriven, 1967). Summative evaluation is conducted at the end of a program to measure effectiveness and value (Scriven, 1967). According to Cranton and Legge (1978), "it is often the case that formative evaluations are internal and summative evaluations are external; however, this division is by no means necessary" (p. 465). Formative internal evaluations are typically conducted by faculty involved in the program while summative external evaluations are conducted by employees outside of the program and tend to be for the purpose of accountability (Cranton and Legge, 1978). The data garnered from program evaluation in higher education is critical for assessing content, value, engagement, and outcomes that ultimately support data driven decision-making. Data driven decision-making has and continues to serve as a cornerstone in the development and continuous quality improvement of the MSHE Program. According to Microsoft (2004), "With effective data driven decision making capabilities, higher education administrators and staff can more accurately identify trends, pinpoint areas that need improvement, engage in scenario-based planning and discuss fact-based decision making options and likely outcomes" (p. 1). Data driven decision-making is not new to education. "Notions of data driven decision-making (DDDM) in education are modeled on successful practices from industry and manufacturing, such as Total Quality Management, Organizational Learning, and Continuous Improvement, which emphasizes that organizational improvement is enhanced by responsiveness to various types of data" (Marsh, Pane & Hamilton, 2006, p. 2).

Included below are four examples of how data driven decision-making is integrated into OHT instruction and programming.

MSHE Annual Student Survey: The MSHE Annual Student Survey is conducted at the end of each spring quarter and provides critical benchmarking data relating to student engagement, retention, academics, satisfaction, and professional development. While the core of the survey is consistent annually, a portion of the survey is modified each year to collect data on new OHT initiatives or ideas that have been or will be incorporated into instruction or programming.

Key Learning Points: During Weeks 5 and 10 in all courses, students are required to post Key Learning Points through an audio/voice discussion board. Students are provided 3-4 minutes to summarize and articulate the knowledge and skills they have acquired and applied during the first five and last five weeks of the course. Through this reflective assignment, students often share accolades and challenges they have experienced in the program or at their place of employment as they relate to the lectures. Additionally, students share with faculty new relationships they have acquired through discussion

boards, Live Classrooms, or virtual teas. These personal accounts provide faculty an opportunity to assess student involvement in the lectures as well as connect to students through their shared experiences.

Exit interviews for Non-degree Completers: Students who decide to leave the MSHE Program without completing the degree are first contacted by the MSHE Academic Advisor to discuss their reasons for leaving prior to graduating. This preliminary exit interview provides the Academic Advisor with the opportunity to personally reach out to the student and share options for continuing enrollment. For students who make the final decision to leave the MSHE Program, a second interview is set up with the MSHE Director. This discussion with the MSHE Director provides an additional opportunity to reach out to students and to identify specific reasons as to why they are leaving the MSHE Program. Attrition data is collected and added to the MSHE Program database to identify and monitor current or emerging enrollment issues.

Continuous Quality Improvement and Innovation: The MSHE Program works closely with the Office of Research Compliance throughout the academic year to conduct quantitative and qualitative research relating to continuous quality improvement and satisfaction with new instructional strategies and/or new technologies. Instead of surveying the entire MSHE student population on all studies, select courses throughout the year are chosen for the implementation of new instructional strategies and use of new technologies. At the end of the courses, students complete electronic surveys and/or participate in focus groups regarding their experience. Based on the collected feedback, the instructional strategies and/or new technology are implemented on a larger scale or across the entire program. Past studies have shown this mixed methods approach to be very important and cost effective. For example, two dynamic technology platforms that have garnered national attention received very poor reviews from MSHE students; therefore, they were not implemented on a full program scale. Student surveys revealed the platforms were extremely cumbersome and difficult for students to use in the courses. Conversely, there have been instructional strategies applied across three to four courses that were extremely successful and later implemented across all courses.

Results of OHT Instruction and Programming

Data collected from the MSHE Program over the past three years supports the value of OHT and the ongoing development of this dynamic and evolving concept. Comparative data is not available since the OHT instruction and programming concept was developed in fall 2005 to support the launching of the new online MSHE Program which did not and still does not exist as an on-campus program. Descriptive data and feedback garnered from three types of evaluation will highlight the critical role of OHT instruction and programming in the MSHE Program: (a) 2008 Annual MSHE Student Survey; (b) 2008 course evaluations; and (c) student feedback from reflective papers and reflective journals.

2008 MSHE Annual Student Survey

In June 2008, the MSHE annual student survey was sent to 144 students enrolled in the MSHE Program in spring quarter 2008. Over half of the students (N=75) responded representing a 52% response rate. The purpose of the annual survey is to collect student data relating to student engagement, retention, academics, satisfaction, and professional development.

The results of the 2008 survey indicate students feel highly connected to MSHE faculty and adjuncts as well as students in their cohort (see Table 1). While MSHE students feel less connected to the School of Education and Drexel University, they feel least connected to MSHE students outside of their cohort.

MSHE students are actively engaged in educational activities that are integrated into instruction and programming. MSHE data revealed high levels of student engagement in weekly discussion boards, group assignments, and Horizon Wimba Live lectures (see Table 2). However, students are less engaged in the audio/voice chat rooms and text chat rooms that are supplementary and not integrated into courses.

Text and audio/voice communication and feedback are important in connecting students to the MSHE program. The majority of students indicated that text comments on graded assignments made them highly connected to the MSHE Program. Furthermore, the data revealed that weekly discussion boards, announcements, emails, and "live" classroom lectures connect students more to the MSHE Program than recorded video lectures or recorded voiceover PPT presentations (see Table 3).

Table 1. Question: As an online student in the MSHE Program how connected do you feel to the following constituent groups?

	Connected	Very connected	Total
Faculty and adjuncts	51%	18%	69%
Your cohort	55%	12%	67%
School of Education	35%	11 %	46%
Drexel University	32%	10%	42%
MSHE students outside of your cohort	12%	1%	13%

Likert scale: Very connected, Connected, Neutral, Disconnected, Very Disconnected

Table 2. Question: As an online student how engaged are you with the following course activities?

	Engaged	Very engaged	Total
Weekly Discussion Boards	39%	53%	92%
Group Assignments	26%	62%	88%
Horizon Wimba Live Classroom lectures offered by faculty and adjuncts	42%	45%	87%
Audio/voice Chat Rooms	24%	19%	43%
Text Chat Rooms	21%	12%	33%

Likert scale: Very engaged, Engaged, Neutral, Disengaged, Very Disengaged

MSHE data revealed that 100% of the students identified quality of instruction and academic rigor of courses as important and very important to their overall master's degree experience. Academic support from faculty and adjuncts as well as accessibility also had high ratings of importance to students. In addition, students indicated technical support, quality and accessibility of academic advising, and connecting with faculty and MSHE students were of high importance to their overall master's degree experience (see Table 4).

Students were asked to rate their professional skills prior to enrolling in the MSHE Program and then their current skills since enrolling in the MSHE Program. The data revealed that students increased their skill level between 9% and 45% since enrolling in the MSHE Program (see Table 5).

Students stated that the MSHE Program offers the same (53%) or higher academic (39%) quality courses than on-campus programs in which they had attended (see Figure 2). One quarter (25%) of the students stated they had been promoted since enrolling in the MSHE Program. Additionally, over one-third to half of the students stated they have been asked to be a speaker (37%), asked to serve on a committee (46%), asked to lead a project (50%), and have received an award (14%) since enrolling in the MSHE Program (see Figure 3).

Almost all of the students (96%) stated they would recommend the MSHE Program to individuals seeking to advance their career in higher education. Additionally, 92% stated they would recommend the MSHE Program to individuals seeking to transition into higher education.

Table 3. Question: Rate the level to which each educational activity makes you feel connected as a student to the MSHE Program.

	Connected	Very connected	Total
Text comments on graded assignments	41%	53%	94%
Weekly Discussion Boards (text)	45%	47%	92%
Text announcements	46%	43%	89%
Text email	52%	36%	88%
Audio/voice announcements	45%	39%	84%
Live Classroom lectures presented by faculty and adjuncts	35%	49%	84%
Live Classroom lectures presented by individual students and groups for graded assignments	40%	43%	83%
Audio/voice comments on graded assignments	30%	48%	78%
Audio/voice email	34%	42%	76%
Weekly Discussion Boards (Audio/Voice)	33%	43%	76%
Video lectures by faculty/adjuncts	30%	27%	57%
Voiceover PPT/Camtasia presentations by faculty/adjuncts	34%	23%	57%

Likert scale: Very connected, Connected, Neutral, Not very connected, Not connected at all

Table 4. Rate the level of importance of each item to your overall master's degree experience.

	Important	Very important	Total
Quality of instruction	22%	78%	100%
Academic rigor of courses	42%	58%	100%
Academic support from faculty and adjuncts	26%	73%	99%
Accessibility to faculty and adjuncts	38%	56%	94%
Technical Support	34%	59%	93%
Quality of academic advising	44%	45%	89%
Accessibility to academic advisor	49%	40%	89%
Opportunities to connect with faculty and adjunct	43%	44%	87%
Opportunities to professionally network	44%	41%	85%
Opportunities to connect with students in the MSHE Program	40%	43%	83%
Accessibility to library resources	38%	44%	82%
Student Support Services	43%	26%	69%
Feeling connected to Drexel University	41%	28%	69%

Likert scale: Very important, Important, Neutral, Not very important, Not important at all

Table 5. Prior to enrolling in the MSHE Program, how would you rate your previous skills in the following areas? & Since enrolling in the MSHE Program, how would you rate your current skills in the following areas?

		NA	Very weak	Weak	Moderate	Strong	Very Strong	Strong & Very Strong
Writing	Previous skills	0%	1%	3%	25%	41%	30%	71%
	Current skills	0%	1%	0%	11%	43%	45%	88% (+17%)
Online communications (email, text chat rooms)	Previous skills	0%	1%	1%	19%	35%	44%	79%
	Current skills	0%	0%	0%	7%	39%	54%	93% (+14%)
Oral communication (audio/voice boards, presentations)	Previous skills	0%	0%	3%	22%	57%	18%	75%
	Current skills	0%	0%	0%	15%	53%	32%	85% (+10%)
Conducting research (i.e., SWOT analysis, environmental scan, literature review, etc.)	Previous skills	4%	1%	19%	36%	25%	15%	40%
	Current skills	3%	0%	4%	18%	48%	27%	75% (+35%)
Working in groups	Previous skills	0%	0%	1%	27%	47%	25%	72%
	Current skills	0%	0%	3%	14%	44%	39%	83% (+11%)
Serving as a leader	Previous skills	0%	0%	8%	27%	39%	26%	65%
	Current skills	0%	1%	1%	11%	52%	35%	87% (+22%)
Decision making	Previous skills	0%	0%	0%	23%	52%	25%	77%
	Current skills	0%	0%	0%	14%	51%	35%	86% (+9)
Developing PowerPoint (PPT) Presentations	Previous skills	0%	6%	10%	27%	41%	16%	57%
	Current skills	0%	1%	0%	11%	52%	36%	88% (+31%)
Delivering PPT Presentations	Previous skills	0%	4%	11%	40%	28%	17%	45%
	Current skills	0%	1%	0%	19%	44%	36%	80% (+45%)

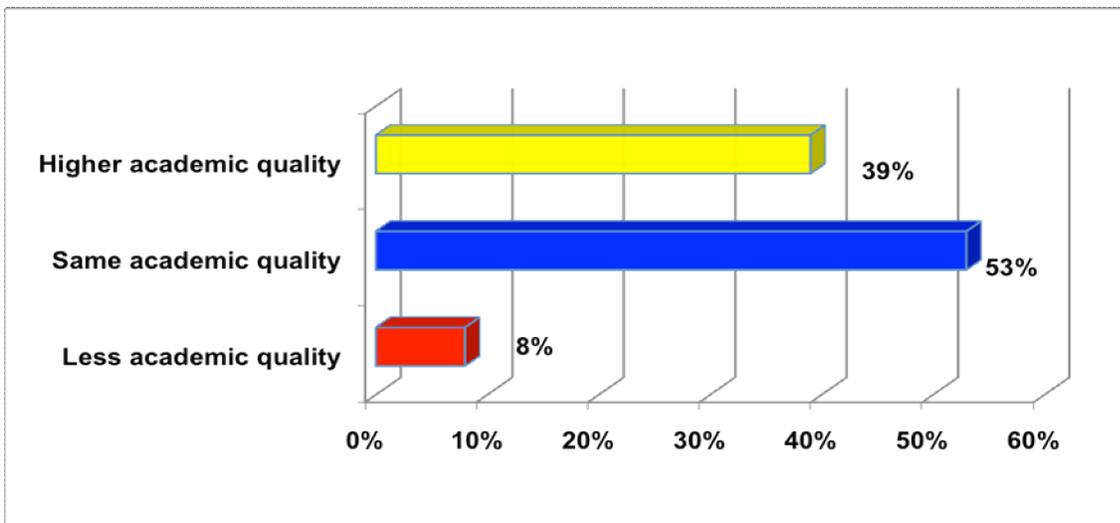


Figure 2. Question: How does the academic quality of the online MSHE courses compare to on-campus programs you have attended?

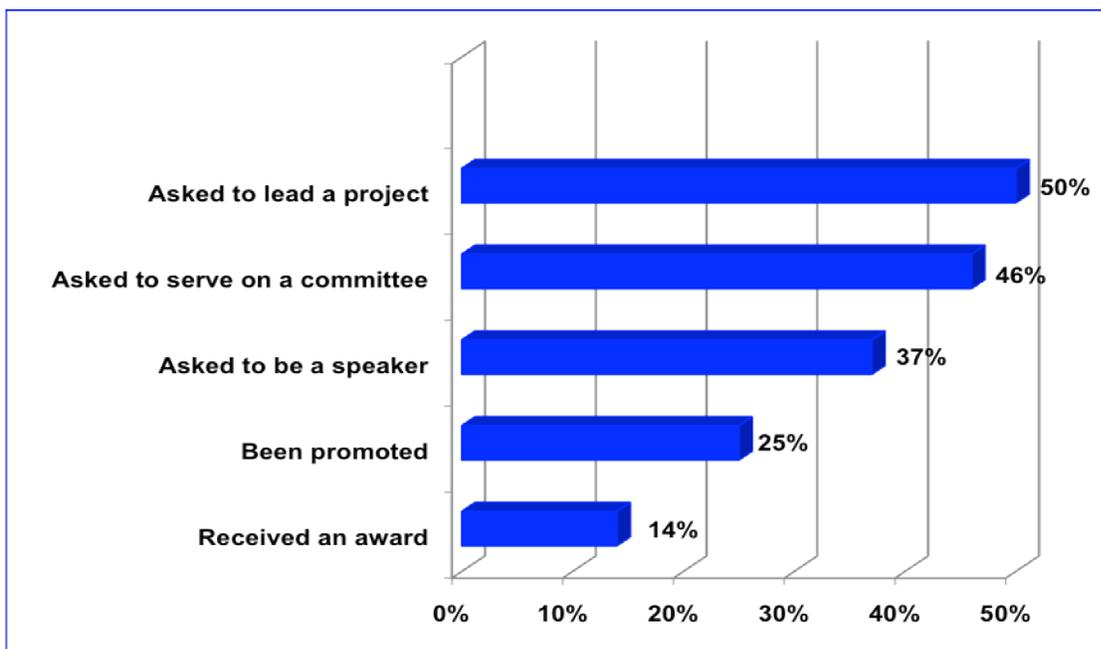


Figure 3. Question: Since enrolling in the Higher Education Program, identify how you have been recognized professionally by the institution or organization where you are employed?

Course Evaluations

The OHT concept integrates student and faculty interaction into course design to increase learning and satisfaction. Therefore, it is important to review course evaluations as a measurement for student engagement and satisfaction on a quarterly basis. Two course evaluations from winter 2008 are provided in Table 6. The evaluations include eight questions using a 5-point Likert scale (Outstanding, Above Average, Average, Below Average, and Unacceptable). The evaluations from both courses indicate high levels of course satisfaction. However, it is recognized that the evaluation instrument does not provide robust feedback with specific indicators to overall engagement, assignments, and learning outcomes.

Table 6. Course Evaluations for Winter 2008

	EDHE 606: Higher Education Graduate Co-op	EDHE 715: Higher Education Career Development
Rigor of the course	88% Outstanding 12% Above Average	83% Outstanding 17% Above Average
Stimulation of my thinking	88% Outstanding 12% Above Average	83% Outstanding 17% Above Average
Teaching Method	88% Outstanding 12% Above Average	83% Outstanding 17% Above Average
Instructor's Knowledge	88% Outstanding 12% Above Average	100% Outstanding
Support and Feedback	88% Outstanding 12% Above Average	100% Outstanding
Value of Course	71% Outstanding 29% Above Average	67% Outstanding 33% Above Average
Overall Rating of Course	79% Outstanding 21% Above Average	67% Outstanding 33% Above Average
Overall Rating of Instructor	100% Outstanding	85% Outstanding 15% Above Average

Note: While the samples for the evaluations are small, the MSHE Program typically does not have more than 20-25 students in an online course and less than 20 students in specialization courses in its commitment to support community development. Response rates for EDHE 715 was 64% (7 /11 students) and EDHE 606 was 50% (6/12 students).

It should be noted that MSHE course evaluations were outsourced from fall 2005 to winter 2008. During this time course evaluations were modified several times providing distinct challenges for benchmarking. In 2007/08, three of the four quarters had different course evaluations which provided very limited comparative data. However, course evaluations will be brought *in house* to the School of Education in June 2008. Recognizing the importance of data driven decision-making, the MSHE Program has utilized other types of formative and summative data for data driven decision-making.

Reflective Papers and Journals

Reflective papers and journals provide qualitative feedback on engagement and learning. Sample feedback collected from reflective papers in EDHE 606: Higher Education Career Development and reflective journals in EDHE 715: Higher Education Career Development are provided in Tables 7 and 8. The overwhelming positive comments relating to engagement, self-esteem, and the acquisition of skills highlight the positive impact of OHT instruction and programming.

In EDHE 606, students are required to develop ePortfolios, apply for an *real* position posted in the Chronicle of Higher Education but send the application to Drexel's Steinbright Career Development Center. They then participate in a Live Mock Interview with a search committee as described previously. In EDHE 715-716, students participate in a 20-week Higher Education Graduate Co-op. The Co-op requires students to develop and lead an action research project based on an actual problem within their place of employment. The faculty who teach EDHE 715/716 also serve as mentors for the students on these projects. As part of the course, students are required to submit reflective journals every two weeks during the 20-week period. Furthermore, students are required to submit a full co-op report that includes five chapters similar to a master's thesis or abbreviated doctoral dissertation.

Table 7. Comments Shared in Reflective Papers from EDHE 606 (Winter 2008)

The Live Classroom Mock Interview helped me formulate a plan to present my <i>best self</i> in an interview setting and answer questions thoroughly yet spontaneously. Receiving feedback brought to my attention areas where I can improve my performance in interviews.
The mock interview left me with a greater understanding of what is expected in the professional world. I have been on several interviews in my lifetime and I have to say that the mock interview helped me better prepare for future professional endeavors.
The verbal responses from the faculty were beneficial because they allowed me to receive criticism, positive feedback, and they also allowed me to further understand the point of view of others. In the future, I will be more responsive to others and will use verbal responses as a means to communicate with my professional peers and colleagues. It was also easier to comprehend points made by faculty when hearing their verbal response versus having to try to figure out their point of view through writing.
The higher education career development course was filled with practical information that one could utilize in his or her career. The most valuable experience for me was the e-Portfolio experience because all the documentation was electronic, the required documentation was of practical relevance, and the follow-up mock interview and feedback helped identify strengths and weaknesses in this process.
Due to my experience in this course, I know that I will be a great leader. I believe that leadership is the ability to assist others in reaching their goals and setting an example of how to be a leader simultaneously.

Conclusion

The OHT instruction and programming conceptual framework builds upon five areas of research: student engagement, community development, personalized communication, work-integrated learning, and data driven decision-making. This dynamic and evolving concept provides students with a personalized educational experience that *brings the campus* to the online environment. Data and feedback collected over the past three years in the MSHE Program at Drexel University indicates that OHT instruction and programming positively affects student engagement, connectivity, and retention.

Online students seek strong academic programs that offer opportunities for personal interaction. This is illustrated by MSHE students placing a high level of importance on the quality of instruction and academic rigor of courses while also placing a high level of importance on their personal interaction and engagement with faculty, adjuncts, academic advisors, and students. Additionally, MSHE data reveals that OHT strategies that emphasize frequent and quality personal interaction influence student connectivity to an online program.

Online education offers extensive opportunities for students to acquire new skills and knowledge from courses through work-integrated learning. While most students in online programs do not come to campus, MSHE data indicates that students can greatly augment professional skills through OHT instruction and programming. The integration of practice-based assignments and reflective learning personalize the educational experience for students as well as prepare students for promotion, to serve as speakers, to lead projects, and to serve on committees.

Lastly, community development is important for building and fostering a lifelong connection between the university and online students. The OHT concept emphasizes the importance of student engagement across academic and social communities since this has an affect on the overall student experience. Since many online students will never step foot on campus, interaction may be limited to the online classroom. Therefore, community development must go beyond the online classroom and engage students across all cohorts to extend networking opportunities and support ongoing student-campus connectivity.

Table 8. Comments Shared in Reflective Papers from EDHE 715-716 (Winter & Spring 2008)

<p>As we are approaching the end of this term, I look back at the work done and the accomplishments up to date. This term was very challenging but also very rewarding. I see how the hard work is shaping into a co-op project that will help me grow in my current position, develop my knowledge to help me further in my career, and will add to the literature. The support and help from the professor was extremely helpful in giving me direction. Her feedback and suggestions kept me on track with the project. I understand the importance of having an advisor that provides feedback and direction.</p>
<p>Since my last journal entry, I have received feedback from the professor on my Literature Review. I invested a lot of <i>sweat equity</i> in writing my review, and was not sure I was on the right track, so hearing that it was well done and that I should be so proud of my work, was a HUGE boost to my ego and my confidence. It also provided some incentive to soldier on with this project.</p>
<p>Overall, I feel that the research project helped me to not only learn how to do research but also will help my program in a very positive way. Although I work, on a daily basis, with many of the issues surrounding the functioning of the program, the research project provided me with deeper insight on how to make curriculum development more effective. Examination through SWOT analysis, environmental scan, and gathering student data helped me to gain important information that can help guide our program for success in the future. While my co-op research project will be ending soon, I plan to continue to implement the recommendations that were developed through the data that was gathered through this valuable research.</p>
<p>Since the last journal entry, I've received helpful feedback on my literature review from a classmate and the professor. I need to incorporate suggestions into my final document before this month ends. Finally, I've noticed that my experience in this co-op, and especially in this higher education program generally, has made profound positive contributions to my new job. This happens both in what I know and how I express it.</p>
<p>My professor has looked at numerous drafts of my Capstone project, and always provided me with great feedback. It is actually amusing in one regard because a colleague of mine is in a masters program and she received a paper back from her professor and there were very few comments. I asked her where the comments from the professor were. I am so used to receiving such constructive and rich feedback, that if I do not receive that on a project, they must have not read it. Another thing I have learned is that feedback is good, and to take it and improve upon the project at hand.</p>
<p>It is an extraordinarily valuable experience. It is an exercise in what I've done in the HE program to day. It is training for future work assignments when I may be able to follow a similar project. After this, I'm also interested in finishing my doctorate in the future.</p>
<p>The entire Drexel online experience has been one I would never exchange. I was skeptical, and hesitant, at first about earning this degree completely online. In comparing this program to that of my peers at other institutions, however, I feel as if I went through a higher ed program that was more challenging and more engaging than theirs, despite the distance in proximity.</p>

Recommendations

The OHT concept can be integrated into online and hybrid/blended programs. However, the implementation of the concept must be supported by standards and guidelines for faculty, adjuncts, academic advisors, and staff. Furthermore, data driven decision-making is quintessential for the sustainability of the OHT instruction and programming. Data and feedback on OHT strategies must be

collected as part of an evaluation process to monitor affects on student engagement, connectivity, and retention.

Since the development and implementation of the OHT instruction and programming concept into the MSHE Program in fall 2005, the results include continued student growth, financial sustainability, high student retention rates, active alumni participation, and national recognition. However, continued research is needed as the OHT concept evolves. Furthermore, comparative research with hybrid/blended and on-campus programs is recommended to expand the OHT literature.

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Manuscript received 23 May 2008; revision received 23 Jul 2008.



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