

## **A Dental Hygiene Online Degree Completion Program through the Eyes of its Graduates**

### **Abstract**

**Purpose:** This evaluation study was done to illicit feedback from program graduates that could in turn be used for quality improvement for the program.

The nearly 10-year old program had never been evaluated by its graduates.

Graduates were chosen in order to gain a perspective not readily available.

**Methods:** A web-based survey was conducted with graduates of an online degree completion program. Seventy-five percent of the program's graduates at that time (N=46) participated in the survey. Graduates were asked about their satisfaction with the program with regard to it meeting their expectations, benefits of the program, and to give advice to the program with regard to curriculum, recruitment, and online educational techniques.

**Results:** The graduates overwhelmingly expressed positive feedback for the program and its benefits and offered numerous suggestions with regard to program maintenance and improvement.

**Conclusions:** The insight of these graduates provides valuable quality improvement feedback for this and other online degree completion programs.

## **Introduction**

East Tennessee State University accepted its first class for the BSDH online degree completion program in the fall of 2001 graduating its first class of 13 in May of 2003. This innovative online completion degree was one of the first two programs of its kind in the US allowing licensed dental hygienists who hold an associate degree to complete a BS degree online while balancing work and family commitments from where ever they are. An internet based survey was conducted with graduates of the BS online degree completion program during May, 2008. The survey was developed with input from the university's director of e-learning and was field tested and revised. As proposed by Mungania and Hatcher (2004) the survey contained questions regarding the participant's satisfaction with the online program of study, institutional support, how obtaining their degree online has impacted the graduates, and their suggestions or concerns regarding teaching tools and technology used in the program. Similar studies have been done by Moore (2007) and Tsokris (2010). Moore (2007) surveyed 13 hygienists enrolled in a BS completion degree program and found high regard for the program particularly in the areas of convenience, peer interaction, and development of critical thinking. Tsorkris (2010) also found that convenience and flexibility were major factors in students' satisfaction. Gadbury-Amyot, Fried, and Syme (2007) concluded that faculty and student feedback is critical for ongoing course refinement in online learning. This study was designed to add one more perspective – that of the program's graduates.

## **Methods and Materials**

A web based survey was designed and launched utilizing ETSU's College of Medicine survey tool and attending database. The survey was intentionally designed to capture qualitative data via unlimited text boxes for several open ended questions and also included quantifiable forced choice and multiple choice questions. The survey link was sent via email to 61 dental hygienists who graduated from ETSU's online program between 2003 and spring of 2008. Forty-six of the graduates were reached successfully representing 75% of the graduates at that time. An additional email reminder was sent encouraging participation. The response rate was 83%.

## **Results**

All participants said they would recommend the BS online completion program. And 97% said the program completely met their expectations. While there were many positive comments from the students, the following are good representations of what most students had to say:

“It allowed me to work, raise a family, and go back to school after being out for over 10 years. It has also allowed me to pursue another career path in dental hygiene.”

“Actually, the program provided information and experience in areas I did not anticipate. I routinely share information I gathered in several classes with clients.”

“One expectation I had of the BSDH program was to be able to continue to work and go to school. I was able to accomplish that with very little disruption in my work. I also expected the curriculum to augment the knowledge that I already possessed within my field through research, writing and work in community service. This also happened for me.”

“I needed a BS degree to attend graduate school. Not only did the program meet my expectations, it far surpassed anything I could have imagined occurring after being out of school for 25 years..... .”

“I was an adjunct faculty member at the time and the BSDH degree has given me the opportunity to apply for a full-time position which I have now held for 3 years. I am currently enrolled in a Master’s program.”

“I felt like I got more up to speed on my profession and re-learned how to appropriately sift through research.”

“Far exceeded my expectations. I was able to complete my degree and learn a great deal more than I thought.”

On the question of what benefits the graduates have gotten from the program, all respondents marked multiple benefits. Sixty percent marked new career opportunities within dental hygiene as one of benefits and 53% reported that the program was a stepping stone to a different career path. Eighty-two percent have used this program as a stepping stone to further education and as for improved research and writing skills 84% said this was a benefit and 89% report improved computer skills as a result of the program. Seventy-four percent reported a renewed interest or enthusiasm for dental hygiene and 68% chose collaboration with professional contacts or friends from other parts of the country as one of the program’s benefits. Other benefits included: the accomplishment of a personal goal, getting into the community and getting involved, a pay raise, increased respect from patients and co-workers, and in the words of one participant “the renewed enthusiasm of course spilled over into my office as well in addition to family members and friends, this was a wonderful experience for me!”.

The participants were asked what advice they would give to the program regarding recruitment, student advisement, and curriculum. On the issue of

recruitment respondents suggested direct contact with associate degree programs, either by contacting faculty or students or both. Other suggestions included: flyers to dental offices, advertising in print media such as dental hygiene journals, sending flyers with state license renewals, and more exposure at state and national meetings. It was further suggested that responding to questions quickly was a good way to encourage potential students to commit to the program and that information online was the best recruitment tool. Specific suggested messages for students included: stressing the need for students to be self-starters and that students should be told to plan to devote at least one full day per week to their studies and additional time daily. It was also suggested to stress the message of the program's potential to further one's education and career and two respondents suggested putting graduates in touch with potential students.

On the subject of student advisement the respondents were mostly complimentary. However, seven voiced concerns about having needed more one-on-one advisement particularly in regard to general education core requirements. This concern has since been addressed now that every student receives individual advisement either via email or at the now mandatory orientation or both. This change in the advisement approach came in the fall of 2005.

Twenty students made comments regarding curriculum and ten of those were complimentary using words such as orderly, timely, pertinent, and enjoyable. Suggestions for curriculum modification included: more educational methodologies for better educator preparation (mentioned by three graduates), longer orientation or an introductory computer class, more interaction with more

opportunity to work collaboratively, fewer collaborative projects, offer all classes each semester, more recommended and required textbooks, add class concerning implant therapy and other new treatments, more practice / practical application in the education classes, and include current clinical practice issues faced in our profession and practice management. While some of these reflect personal preferences for particular graduates, overall they reflect the very real differences between our online degree completion students and our on-campus students who will also graduate with a BS. When the program was implemented it was determined that online courses must have the same course numbers and catalog descriptions as those for the on-campus students because they receive the same degree. Over time we have learned that while the content may be the same, we need to approach the online classes differently, since their interests and needs are not the same as someone just beginning in the field. So while the basic course structure for online students and on-campus students may be very similar, actual course activities and objectives may vary. It is obvious from these comments that we should do a better job of clarifying to potential students that while this program will likely open doors for them to teach in an associate degree program it is not a teacher preparation degree. In the dental hygiene profession, educators now have the option of being formally trained at the Masters level. Our program is designed to give licensed associate degree hygienists the same or equivalent educational experiences as BS trained hygienists receive. Since ETSU strives to do what one student described, we are very appreciative of her comment as follows. "It fulfilled all of my needs. Even after 25 years out of college, I felt what I learned successfully bridged the gap!"

When asked for other suggestions for the program the graduates were enthusiastic in expressing their approval and satisfaction with the program using words like great, excellent, perfect, set up well, and grateful for the program. One graduate said she especially enjoyed the interactive classrooms which made online learning more personal. Another mentioned that even though she was in Kentucky she felt as though she was in a campus classroom. A suggestion was made that a list of technology needed for the program provided at the beginning would be helpful, rather than finding out what is needed at the beginning of each course. While this is a good suggestion it could create some problems for students when individual instructors make changes in their courses.

When asked to rate their experience with online education through East Tennessee State University with five being best 76% of the respondents gave us a five. The remaining 24% rated their experience at a four. Suggestions for online education at ETSU included better tech support, offering more programs online, and offering more general education core classes online every semester. Four graduates voiced frustration in that their experiences with general education core classes could have been better, suggesting mandatory teacher training for online instructors and better communication from professors. Two more also suggested that the university staff needs a better understanding of how the BSDH online program works and that they need to communicate better with students. One said the admissions process is cumbersome and another asked that the university stop changing course platforms. Another suggested that more familiarity with how an online course works is needed prior to taking online courses. Five graduates were

very complimentary regarding online education at ETSU and expressed gratitude and satisfaction.

Graduates were asked to rate the extent to which the BS online degree completion program has had an impact on their ability and confidence as a patient educator / health promotion professional. On a scale of one to five with five being significantly and one being very little 79% marked five, 18% chose four, and one graduate selected two which is in between very little and somewhat. Her follow-up comment was that she did not believe the program changed the way she practiced in regard to patient education. However, the program has apparently had a positive impact for the others in regard to their ability and confidence as educators. Six graduates commented that they were better patient educators as a result of the program; four others said they were more confident in all areas of patient care, and six others related evidence-based information as an important benefit of the program. Four mentioned that they felt more up-to-date especially on periodontal disease and elderly patient care and one said she felt more qualified overall to teach others and another said she felt more confident and capable presenting programs to different groups. At least two mentioned that the program gave them more excitement and got them out of “the office rut” and interested in new things. Two graduates commented that they were more confident dealing with their dentists and their peers while two others mentioned the program has given them the knowledge and confidence to become clinical instructors and/or become part of a sales team. Five who were obviously instructors mentioned they were better with their students and one of those mentioned becoming a more qualified lecturer as a result of the program. Two

graduates reported that the program had given them the confidence and skill to conduct continuing education programs and to write articles and another is attending graduate school to major in health promotion.

When asked what they liked best about online learning convenience (34%), flexibility (15%), and the ability to not have their working lives disrupted (21%) were the most popular answers. Convenience, flexibility, ability to keep work schedules and family disruptions to a minimum, asynchronous learning format, working at one's own pace, scheduling of classes, and not having to drive to a campus all combined for 80% of the answers provided to this question. Other answers given included research, experience of refining writing skills, learning about computers, the efficiency of the instructors, being in class with so many different people from across the country, the ease of learning, and that online courses are more enjoyable than traditional ones. Additional comments as to what they liked best about online learning included: that this particular program built on an associate degree while others required starting over, that the program even exists, and being able to finish a BS degree after a 20-year delay.

As to what they liked least about online learning eight (21%) of these graduates indicated there wasn't anything they did not like. For others feelings of isolation (21%) and group projects (11%) were the most popular answers as to what they liked least about online learning. Three students mentioned that the work was hard or the work load was demanding and one said it was difficult to stay committed. Other dislikes included technical or computer glitches, unclear due dates and expectations in course content, the amount of time spent at the

computer, difficulty coordinating with other students, timed tests and deadlines, and mandatory chat attendance.

Graduates were asked to give feedback on various educational techniques commonly used in online learning including discussion forums, instructor feedback on papers and assignments, interaction with instructors, interaction with fellow students, course documents posted within the course site, group work, chat, email, online exams, community outreach projects, writing assignments, and research. When asked to rate discussion forums as to its value in online learning with one being poor and five being effective 50% rated them at a five, 29% gave discussion forums a four, and 18% gave them a rating of fair.

As to the value of instructor feedback on papers and assignments 74% of the graduates rated it at five. Twenty-four percent of the graduates gave instructor feedback a four and 2% gave it a three which is a rating of fair. Interaction with instructors was given a five by 71% of the graduates and a four by another 26%. Only one of the respondents gave interaction with instructors a rating of fair. On the other hand, interaction with fellow students did not rate as highly as an effective educational tool. Thirty-nine percent of the graduates gave interaction with fellow students a rating of five and 45% rated it at four. While 16% only gave it a fair rating of three.

Course documents is a section of the online course platform where instructors place the bulk of printed material related to the course. Items found there may include notes, reference material, articles, PowerPoint slides, assignment examples, and diagrams or other materials the instructor finds relevant. As to the effectiveness of course documents as a teaching tool the results were identical to

that of instructor feedback: 74% rated it at five; 24% gave it a four and 2% rated it at a three or fair.

As to the effectiveness of group work as a student learning tool, graduates were given a scale of zero to five with zero for did not use and five being effective. The answers to this question were more spread out over the scale than any so far, most likely reflecting students' generally strong like or dislike for group projects. Only 29% rated group work at the top of the scale and another 21% gave it a four. Another 29% rated it fair at a three with 11% giving it only a two and 8% rating it as poor.

Chat or synchronous online discussions was rated just slightly better than group work. In the case of chat 13% of the graduates reported never having used it; 21% of the graduates gave it a five and 32% rated it at four. Twenty-six percent rated it at fair and 8% only gave it a two.

Email is one of the most frequently used communication tools in the BSDH online program. As to the question of its value in student learning 47% of the graduates rated it at the top of the effectiveness scale with a five and 29% gave it a four. Twenty-four percent rated it as fair.

Online exams are rarely used in the BSDH program, however, many of the general education core classes rely on exams to measure student learning. As to effectiveness of online exams as a tool for student learning most graduates thought they were effective with ratings of four (26%) and five (39%) combining for 65%. Eleven percent only rated them as fair and 3% gave them a two. Eighteen percent reported not having used online exams and one did not answer the question.

Graduates overwhelmingly gave community outreach projects high marks on its effectiveness as a tool for student learning. Seventy-six percent rated community outreach projects as a five and 16% gave it a four for a combined total of 92% of the respondents. Five percent rated it as fair at three and 3% rated it as poor. Writing assignments were also rated very high with 100% of the respondents giving them either a five (82%) or a four (18%). And finally research was also rated very high by the graduates with 92% of them marking it as a five and the 8% giving it a four.

When asked the open-ended question of what advice these graduates would offer to new students in online education the most common themes were the importance of computer skills, having an appreciation for the difficulty of online coursework, self-discipline, and understanding that online education is different than the traditional classroom. The graduates would encourage new students to take the computer class first, not last, and to not come into the program thinking it was going to be easy. Keeping up with coursework was another common thread with graduates suggesting calendars or schedulers for posting due dates, checking into the course site often, keeping up with assignments and not getting behind, being prepared, establishing a time to work on assignments, and taking one task at a time so as not to become overwhelmed by the assignments. Graduates mentioned the importance of reviewing APA writing guidelines and being prepared to do a lot of writing. Taking it seriously and being prepared to receive back proportionately to the time you put in it were other student comments. Three students mentioned the importance of being patient and several of the comments stressed helping new students understand that they are going to be

responsible for much of their own learning and therefore must be disciplined and willing to commit the time necessary. Another theme was the importance of new students understanding that online education is not like traditional classroom work. One graduate commented that the instructors will provide guidance but students MUST read everything. Another pointed out that without the face to face words in writing do not always translate as what you mean, so students should choose their words carefully. And others cautioned that online classes are much more time consuming than campus classes. However, graduates also commented that new students should not feel intimidated. In the words of one graduate: “Don't feel intimidated by "online" if you have been out of college for a long time. The instructors walk you through it and prepare you very well. You can do it!” Many of the graduates offered encouraging insight with comments like “once the basics are learned you can do so much” and “you will be amazed at how much you learn” and that “it will be worthwhile, especially for those willing to put forth the time and effort”. One graduate put it this way – “....Trust me, if I can do it (and all I could do was cut and paste on the computer), then I KNOW YOU CAN DO IT, TOO! My BS degree from 2005 is proof! Currently, I am halfway through a graduate degree that requires 90 semester hours and what I learned through the online completion program at ETSU is what prepared me for my success in my current grad program. Let me say it again, YOU CAN DO IT :)”.

On the issue of technical problems and computer glitches, 58% of the responding graduates reported that yes, technical problems had been a barrier for them at some point during the program. The remaining 42% said no. As to the nature of the technical issues, several (9 responses) were related to the student's

ability to use the computer; one graduate described herself as being “technically impaired” and no doubt she speaks for several of her classmates. Others reported computer function issues such as crashes, servers being down, and internet connections being disrupted. Two mentioned originally having dial-up internet connections and problems associated with that. One mentioned video camera problems and another had trouble putting voice narration and sound on a PowerPoint presentation. At one time our course platform would not accept large files and two students mentioned this as a problem. Another mentioned not being able to get into her online classroom at three different times. Another got caught buying a new computer in the midst of a software rights dispute regarding a program she needed to access chat sessions and so she missed several of the sessions.

The graduates were asked to rate the educational value of the experience brought to the program by their classmates on a scale of one to five with one being not helpful, three corresponding to somewhat helpful, and five being very helpful. Forty-two percent rated the educational value of their classmates’ experience as very helpful and 40% rated it at a four, just slightly below very helpful. The remaining 18% said the educational value of the experience brought to the program by their classmates was somewhat helpful. When asked for comments related to their answers many (16) gave positive responses and concluded that their classmates added to the educational experience. Six others mentioned the value of diverse points of view and experiences and three mentioned the encouraging nature of their classmates. Another common theme was the issue of shared interests and that it was helpful to hear from others in the

field. One student said it made her feel less isolated to know others shared her same concerns and interests. Others said it was helpful to share information and others' viewpoints and interesting to learn about different practice laws. Five students pointed out that some students contributed more than others, as one graduate stated "some were prepared better than others to make contributions". But those who were prepared and made significant contributions to the class discussions were appreciated by their fellow classmates – "Talking and interacting with other hygienists is a great learning experience. I learned so much from their experiences and knowledge." "Dental hygienists from across the country are able to give insight on specific instrumentation techniques and offer ethical advice to each other." "Interacting through e-mails and on class discussion boards opened up my horizons professionally. Once out of college and comfortable in a position you tend to see just what is in front of you. These classmates gave me new ideas and perspectives to my daily routine."

The graduates were asked to give their opinion as to whether or not online education offers a forum for building long-term relationships. Seventy-one percent said yes. Sixteen percent said no and 13% said they didn't know. When asked to comment on their answers those who had said no mentioned being too busy with work and family to build relationships with classmates. However, the most common theme (5 comments) was related to the nature of moving on after graduation. And two mentioned they did not think online education built relationships in the same way as traditional classes do. However, among the yes respondents eight graduates commented that they felt online education did encourage long lasting relationships and one said it was the same as traditional

programs. Twelve graduates reported having kept in touch with classmates, mostly through emails and professional meetings and some report friendships that have now lasted for years. At least two of them have helped each other on professional issues. Another said she and her classmate's friendship had now carried over to graduate school. So even though graduates may often be too busy to keep in touch, online education does appear to be a basis for long-lasting relationships. The geographic separation does not have to be a barrier, as one student puts it "Even though we were separated by space, we were able to work with one another drawn together by our common goal of educational success (and graduation!)".

## **Discussion**

Although these graduates gave our program relatively high marks there are few things one can glean from these survey results that can be used to improve our students' online experience. First of all there have been some changes in the program since its inception which have addressed some of the earlier graduates' concerns. Individual advisement particularly in regard to what the student needs in the general education core curriculum is given much more attention than it was in the program's early days. Hopefully, this will alleviate some of the students' anxiety about what they need to graduate. The online local anesthesia class has also been modified into a general pain management class not intended to certify online students in the administration of local anesthesia. It was decided in 2005 that it was unfair to ask online students to travel to campus a second time to become familiar with a skill they may or may not be able to use in their

states. When the state of Tennessee recently joined some others in allowing dental hygienists to administer local anesthesia it was determined that our online students will still not be required to come to campus for a weekend lab because again they were incurring a significant expense for something their states might not allow them to do and it is not feasible to teach the giving of injections to clinical competency as defined by the state of Tennessee in one weekend. In order to get fully certified they would need to go back to their employer dentists and give 45 more injections under their direction. So we felt it best to leave getting this certification up to individual online students and not include it as part of the online program which in this case serves students with very different needs. Another issue that has since been addressed is mandatory chat. Since most students like the asynchronous nature of online education, we no longer require all the students to be online at a given time. However, some of the general education core classes do.

Some of the information from the graduates that we need to feed back into program planning includes their ideas on recruitment, particularly making associate degree programs familiar with our program. We no longer require a particular amount of job experience for admission to the program and therefore it is feasible for associate degree students to begin the program the next fall after graduating in the spring. It would be helpful for associate degree instructors to know about our program and provide that information to their students. As to the graduates' ideas about advisement we now require students to purchase the APA writing manual and we include a session on APA at the mandatory orientation. We should and will integrate their suggestions about the importance of taking the

required computer class early on, and emphasize keeping up with coursework sharing with new students their ideas about using a calendar and carving out time to do school work.

One of the main points we can take from this survey is the importance of making sure new students understand that this program is not intended as a dental hygiene teacher training. Although, some it is applicable to giving effective presentations and building communication skills, dental hygiene educators are formally trained in masters programs.

Although the coordination between our program and other offices on campus has improved over the years, ETSU continues to be a traditional leaning university. Based on the graduates' comments more effort needs to be directed at coordination with the offices of admissions, graduation, and bursar. Additionally, our incoming students are now told to always identify themselves as online students. So hopefully being told to come by and pick up a form will eventually stop happening.

As to our educational tools used in the program, it would appear the graduates are relatively pleased as they gave most everything high marks on the effectiveness scale. They voiced more disapproval for group work than anything else. It is important to note that group work is limited to one class in our program; however, we cannot speak for the students' experiences in general education core classes. Further, learning to collaborate as professionals is an important aspect of that course.

Students and graduates are some of the best people to give the learning organization feedback, both positive and negative. After all universities should be

the ultimate learning organization, both from within and in terms of the product they produce. The feedback loop of putting evaluation findings back into the planning and implementation within a system was the basis for this study.

According to Kim (1999) it is important to work on (as opposed to in) the system if one wants to impact how well the system works. By surveying graduates of our BS online degree completion program valuable input was gained that can be fed back into the system for needed improvements. According to Bierema (2003) it is important to design organizations and systems that can support learning. It is hoped that feedback from this survey can be used to further assist our online students toward a meaningful and worthwhile learning experience as well as help us toward our own goal of being an organization that continues to learn.

## **Conclusions**

- Graduates are a rich source of feedback for degree completion programs thus maintaining a contact list of graduates is a worthwhile endeavor for such programs.
- Graduate satisfaction is important to the sustainability of any program.
- Major issues important to graduate satisfaction include: instructor attentiveness, challenging and interactive online environments, building communities of online learners, consistent advisement, being able to rely on the program coordinator as a source of information and guidance, and organization, structure, and clarity within course design.

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