

## CHAPTER IV: RESULTS

Reported in this chapter are findings from semi-structured interviews conducted with secondary teachers who participated in a suburban school district's program to start an online learning component to its traditional classroom offerings. All of the district's secondary teaching staff were offered the opportunity to learn how to develop an online course. Thirty-six instructors participated in the program. Twenty-one participated in this study. Of these 21, nine completed the online course development and delivery; 12 participated but did not complete course development and did not deliver an online course.

Data are reported as they relate to each of the study's research questions.

1. What influences a teacher's initial decision to learn more about developing online courses?
2. What factors influence participants' perceptions of receiving an effective training experience in online course development and delivery?
3. What factors influence the course development experience?
4. What factors influence online course implementation?
5. Are there other factors that, if present, would have enabled persons who did not complete the program to achieve successful completion of the program?
6. What are the perceived effects of online course instruction for students?
7. What are the effects of online course instruction for the participating teachers?

### Participant Description

Multiple attempts were made to provide all program participants with the opportunity to participate. After three individual contacts--a written invitation to participate, a voice-mail follow-up invitation, and a final email follow-up invitation--all available participants communicated their desire to participate or not participate in the study. Four of the program participants are no longer with the school district and could not be reached through any forwarding address. Two participants were on a long-term extended absence from the district and declined to participate. One participant assisted

with the pilot of the interview questions. The remaining eight participants declined to participate in the study. Four of the persons who declined identified lack of time to participate as their main reasons for not wanting to participate. The remaining four persons who declined did not feel comfortable providing a specific reason.

Within the 21 interviewees, there were two distinct groups: full participants and partial participants. A full participant refers to the nine teachers who completed the training and taught an online course. A partial participant refers to the 12 participants who did not teach a course after they started working on developing a course. It can be noted that 2 of the 12 partial participants would consider teaching a course if the conditions surrounding their instruction were different, but have not taught the course as of yet.

The 21 people who volunteered for the study responded to a series of demographic questions during the first part of the interview. The demographic information included gender, academic degree earned, experience in or multiple districts, prior work in an area other than education, area of teaching license, number of years of teaching experience, and any prior experience in delivering online instruction. Table 4 summarizes this information, distinguishing between the full participant and partial participant groups. As is evident in the table, demographic data are similar for full and partial participants. Notable demographic differences between the groups include: the absence of any full participant from the bachelor degree only category, the higher percentage of males who taught online courses representative to the total male population of the study, and a small number of participants who had prior experience with online teaching.

### Research Questions

In the next chapter, a summary of key findings is presented. In this chapter, research question data were gathered for each group and compared/contrasted as applicable for each individual research question. The presentation of the data follows the order of the research questions. Subheadings identify the interview question and the data reported for each group.

Demographic area	All Participants N=21	Full participants N=9	Partial Participants N=12
Gender	M=4 F=17	M=3 F=6	M=1 F=11
Highest Academic Degree Earned	Bachelor=3 Master=15 Doctoral=3	Bachelor=0 Master=7 Doctoral=2	Bachelor=3 Master=8 Doctoral=1
Experience in One Or Multiple Districts	One=6 Multiple=15	One=4 Multiple=5	One=2 Multiple=10
Prior Professional Work Before Teaching	Yes=5 No=16	Yes=2 No=7	Yes=3 No=9
Years of teaching Experience	00-09=6 10-19=7 20-29=4 30-39=4	00-09=3 10-19=5 20-29=0 30-39=1	00-09=3 10-19=2 20-29=4 30-39=3
Area of Teaching Licensure	English=8 Guidance=1 Health=2 Math=1 Reading=2 Science=5 Social Studies=2 Special Ed.=5	English=2 Guidance=0 Health=1 Math=0 Reading=0 Science=4 Social Studies=2 Special Ed.=1	English=6 Guidance=1 Health=1 Math=1 Reading=2 Science=1 Social Studies=0 Special Ed.=4
Prior Experience In Online Teaching	Yes=2 No=19	Yes=2 No=7	Yes=0 No=12

*Research Question #1: What considerations influenced teachers' initial decision to learn more about developing online courses?*

Four interview questions were asked to discern from participants what factors influenced their decisions. The first question asked participants to reflect on when they were initially introduced to the online teaching program and provide information as to what they recall as reasons considered for non-participation.

*Interview Question: As you think back on when you were initially introduced to the online program, what did you see as reasons to participate?*

*Full Participants*

In the responses from nine full participants, six were attracted to the program because of its innovative approach to instruction. Exemplary quotes from the interviews include,

*Interviewee #1(I 1): I was looking for something to renew my interest in my profession, and it kind of was one of those light bulbs, and I said I was going to do it.*

*Interviewee #3 (I 3): Curiosity on my part. It was exciting to be on the ground floor of something new and different.*

*Interviewee #5 (I 5): Another reason for me would be to have a variety of work experiences to keep education and my job fresh as opposed to doing the same thing every year. That's probably the biggest reason for me. And, I just thought it would be fun to be at the forefront of a new educational trend.*

*Interviewee #6 (I 6): The school district is committed to pushing the envelope--trying something new, trying to expand boundaries. Reaching out to the community through educational programs--I want to be a part of that.*

*Interviewee #7 (I 7): A fresh approach to teaching chemistry. I wanted to be on the ground level. Those are my two main reasons. Something different, something new, and I also wanted to be a part of the innovation.*

*Interviewee #9 (I 9): Another reason was because our class is a nine-week class and we teach it four times a year. It can be challenging to repeat over and over. So, I was looking for an alternative way to be able to teach the information in a different way to keep the interest up for me. That was appealing.*

The next most prevalent response, a personal interest in technology, was mentioned by three persons. The following are two illustrative quotes,

*I 2: There were a couple reasons. One is that I felt that I really wanted to push myself to participate and learn the technology as a leader for my department and to also personally grow and take on the challenge of really knowing that technology is where things are going.*

*I 4: Well, I had been doing web page design, and I loved it. It was a great method to use for communicating, and I am fascinated by it. I liked the organization if it, and someone approached me and said, 'I noticed your web page--would you be interested in online learning?'*

Two participants expressed a desire to reach more students through a new method of instruction. One explained,

*I 8: I have always been a believer in computer-aided instruction. I have seen students make huge changes when they are working with electronics and the digital world. It fits the kids that are living on the planet today. They truly are--I've always called them the light learners--as far as the TV and the electronic media, video, and computers. This will be a way to reach them.*

In addition to the previous responses, two individuals added that the program would provide an instructor with greater flexibility in delivering instruction, and one full participant felt that the program would provide a competitive edge over neighboring districts.

#### *Partial Participants*

A majority of partial participants, seven of the twelve, indicated that the potential to reach students was a primary reason to participate. Portions of their responses are listed here,

*I 10: In working with special education students that are not your typical classroom learners --it would just be another way. I looked more at knowing my students that I have worked with that really want to do*

*computers. Get me on a computer, and I can do it. They would not do it by hand. I saw it as another way for students to learn.*

*I 11: I thought it would be another way to access learning style. I thought that there would be another way to help kids earn credits.*

*I 12: With me, I am always looking for choices for kids. It's clearly an opportunity for kids who are not successful in the traditional format--even as we differentiate as much as possible. Four walls does not always provide the best environment for learners.*

*I 13: I thought that with the increased number of credits I could see kids falling behind. I was looking for ways for kids to earn credits to graduate. I thought this was one place for online. We also have more kids who have more and more issues that were more non-traditional. So, we need more options to look at.*

*I 15: I thought it might help...who knows how my afternoon alternative program might expand, so another teacher and I looked at this and thought it would be a good addition to help kids complete credits.*

*I 19: I saw it as an alternative for more students to participate...to teach a course that students may have failed.*

*I 21: I was so excited about this opportunity for the students I represent who are often looking to do things in a non-traditional way. They have so many things crammed into their schedule, and there is simply not time to do that in a traditional school day. In terms of my own involvement, I was hoping to offer an extension of an autonomous learner model for my gifted and talented students.*

Similar to the full participants, the second highest number of referents centered on an interest in technology, mentioned by three of the twelve partial participants. For example,

*I 17: I thought it was a great idea of how to integrate technology. I was interested in technology and how to integrate it into my classes. I was already in pursuit of looking for ways to do that. I was looking into different multimedia options...so when the chance came along, it intrigued me.*

In contrast to the full participants, none of the partial participants mentioned either the innovative nature or the potential to achieve a competitive edge as reasons to

participate. Also of notable interest was a comment offered by a partial participant who mentioned that the program would be a method of instruction that would be more suitable for deaf or hard-of-hearing instructors.

*Interview Question: Do you remember considering reasons to not participate? If so, what do you recall?*

#### *Full Participants*

Three of the nine full participants could not recall any reasons they considered for not participating. Five identified the time it would take them to learn, develop, and instruct an online course as a potential deterrent. For example,

*I 4: The amount of time it was going to take to actually design a curriculum that worked. I knew that I was going to have to learn a whole lot. It was a huge learning curve. Did I really want to get into that?*

*I 7: The biggest thing was time. It is outside of the standard contract and outside of the school day. When I started it, I did not have any children, and I knew that we were starting to consider having a family--it certainly would be a time commitment.*

The only other reason offered by a full participant was concern that the relationship between teacher and student might be lost. She explained,

*I 9: I think one of the things with online learning in general is the concern that relationship building and being in a classroom and the interactions are important. All of a sudden, you will not be able to do that.*

#### *Partial Participants*

Partial participants offered a much greater number of reasons they considered for not participating. Only 3 of the 12 could not recall any such reasons. Five people mentioned time as a significant concern. Three people were concerned about their abilities (e.g., knowledge and skills) to participate. Two exemplary quotes are,

*I 14: I had concerns about going into a class and having people who are much more advanced than I am and feeling that I am trying to play catch-up or are there people who don't know how to click a mouse?*

*I 21: Well, I wasn't sure if I was technically competent enough, but I was willing to muddle along thinking I wanted to stretch my learning.*

Two people expressed reservations about who would ultimately maintain the rights to the materials that the teachers would be creating, as reflected in the following comment.

*I 20: I was concerned about copyright. I was working on materials that were unique to me over many years, and so I was concerned about the district taking the copyright to those materials.*

Another concern or question was raised about where the instructor would be physically located to deliver instruction. That comment is presented below,

*I 19: The first thought was having the technical capacity at home. Would the district give me the technical hardware and software or would I have to come to school and use school equipment to deliver the course.*

Only one participant expressed concern about compensation. One person who did not complete the program expressed an initial reservation about the compensation offered for the course development and instruction. More specifically, a question about the nature of the contract and compensation emerged, as evident in the following response.

*I 19: The first reason was money. I knew it was going to be a lot of extra hours. Would that change my position in the district as far as my contract was concerned?*

One partial participant also expressed concern about the loss of interpersonal relationships with students. He said,

*I 12: I was also concerned about some of the things I think other teachers are. What if I am not seeing the kids? I think I am going to miss*

*that link. That's part of what I enjoy most about teaching is the links with kids because I learn from them as they learn from me.*

*Interview Question: Describe how much training you would typically need to be familiar with a new technology or software program?*

The third question was designed to elicit program participants' perceptions of themselves as persons who easily adapt to new technologies or if they have a great fear or strong reservation about their ability to learn new technologies. Once all responses were analyzed, they were categorized into four groups according to the amount of time participants identified they would need: little if any outside training, some training or assistance if they ran into difficulties, strong need for a formal course or formal training with an instructor, and a large amount of instruction and personal consultation with experts on a regular basis.

#### *Full Participants*

Out of the nine full participants, five identified themselves as persons who would need little if any outside training to learn new technology programs. One response reflective of this view was,

*I 4: Well, see this may differ for me than others because I learned a lot of web design on my own. I came into it knowing that...it wasn't completely new to me. I came into it with something. I learned it on my own because I wanted to...I kind of do the...I am not a manual reader unless I run into problems. I love to play with new software programs. It doesn't take me long.*

The other full participants indicated that, at most, they might need some formal training. None of the full participants indicated needing extensive training and access to technology experts. An illustrative quote is,

*I 9: Well, most of the time when I have learned it, I have taken a class, and that has shown me what to do with it, and that has given me what I needed to get out of it. It was harder learning the web page programming.*

### *Partial Participants*

Of the 12 partial participants, 5 indicated they would need little, if any, training to become familiar with new technologies. Four indicated needing little if any help or formal training. Three of the 12 described themselves as having high concerns about new technologies and indicated needing intense training. An example of this type of response follows,

*I 21: Um...I think in areas that are technical, I have a very long learning curve. Those are things that take me longer than something else. So, what helped me in particular was to have things in writing. A lot of this was not in writing. I need something more extensive.*

*Interview Question: Prior to starting your participation in the online program, what types of educational technology did you use in your work?*

Participant responses about the amount and type of educational technologies previously used in their classrooms were categorized by the researcher as:

Basic:	people who identified word-processing as the only technology used in the classroom
Advanced basic:	people who identified using some software programs in addition to typical word-processing programs
Advanced:	people who use Internet as an instructional tool and/or incorporate multiple technologies such as assistive learning devices, interactive laser disks, and computer simulations as part of their lessons or units
Experts:	people who train other instructors in the use of technologies listed in the advanced category

### *Full Participants*

In the group completing the program, three people were given the "expert" designation. A sample response from a full participant that the researcher identified as a response that would be used as an "expert" response follows,

*I4: Mostly I used things that I found on the web (California has some great sites). I was using 'owl online' for years as a tool for kids to find writing support and workshop ideas. Um...I was familiar with "Go Live"-- I had actually taught some courses on page development.*

The remainder of the full participant included two people designated as "advanced", two people designated as "advanced basic", and two people identified as "basic."

#### *Partial Participants*

In the group not completing the program, only one was designated as an "expert." Of the remaining partial participants one was designated as "advanced", six as "advanced basic", and 4 as "basic".

*Research Question #2: What factors influence the training intended to assist teachers with online course development?*

Interview questions specifically sought the primary type of training experience participants received (e.g., small group instruction, individual training, college courses, and individual exploration of software). Also sought were participant perceptions about effective and ineffective dimensions of training and about recommendations for improving training. Some participants received multiple types of training. Their responses are reported for each training category they identified.

*Interview Question: Describe the training you received for developing online courses.*

#### *Full Participants*

Of the nine full participants, six received small group instruction as their primary method of training. Three received individual training as their primary method. In addition, two people mentioned college coursework that supplemented their training, and two mentioned that in addition to their primary training they also spent training time exploring software.

### *Partial Participants*

Of the 12 partial participants, eight people received small group instruction as their primary training. Four received individual instruction as their primary method. One mentioned taking a college course in distance learning techniques but had no formal instruction in designing or developing online courses. No partial participant mentioned exploring software as a training method.

*Interview Question: What were the more effective dimensions of the training?*

### *Full Participants*

"Hands-on" learning experiences with the computer software and instructional delivery practice were also identified by six of the nine participants. Reference were made to the benefit of actually teaching an online lesson to peers, as well as directly working with the computer and software during the training sessions. Three examples follow,

*I 1: My training experience was having a very scheduled training with six classes that gave an overview of items such as transferring things to PDF. Some classes were on HTML. You walked out of there with your head swimming, wondering what you got yourself into...I think the best part of all of the trainings is again for me doing the teaching-meeting each other in the chat room and trying the software.*

*I 7: The hands on the computer...we each got our own computer, so we didn't have to watch. That helped me participate and get my hands on the stuff right away and work with the applications. The training was structured pretty well for me. We went through basic stuff, and then we were on our own to work on creative stuff. We followed a couple created pages and then we were also free to make it more for our course. We did some work together first, but then were able to do it on our own and make the pages for our class. That helped make it personal rather than all the training being the same for everybody.*

*I 9: What worked for me was if I had something I had actually done and was prepared to put it into the system. That was most effective for me. That might be a learning style preference-hands-on. I learn better by doing, not just watching.*

Four of the nine full participants identified quality instruction/instructors as one of the most effective elements of the training. Illustrative responses include,

*I 4: I think the directors do an awesome job. A lot of people need the one on one-that helps because we all are at different places. They had a web page where you could go and find things-It was almost an online manual for page design-the material is wonderful.*

*I 6: The contact with the directors. Any technical problem, and they were easy to access.*

*I 8: I think also last year the directors spent a lot of time working with me. I can remember going to the office, and I could ask questions as I was going along. This is not something they could do with a lot of people. I was scheduled full-time to do this, so I had the time to do this. They really were an incredible source of information and assistance.*

Four full participants identified having course lessons and outcomes in mind before starting the training. Interestingly, some full participants also identified this factor as a key factor for their successful completion of developing an online course in later interview questions. One response is included,

*I 5: What worked for me was before I started the training I would have the end in mind. So, that when learning something, I am also making a product. Because then I'm-- you know its like --the "if you don't use it you will loose it" theory. If you are using it with something you are planning on using, then you remember the stuff. What worked for me was that through the training, whether it was web page design or receiving online training, I had an end-product in mind. To me that is an important component of any training.*

Four full participants indicated that there was a strong need during their training to use the software on a continual basis. A response that demonstrates this is,

*I 4: I honestly believe that this technology is use it or loose it knowledge. Either you use it or you will not remember it. If you are going to be*

*involved in online learning, you have to keep up with it or you will lose it. I think you have to really want...to passionately want to do it!*

One full participant identified training others as a helpful component to her own training,

*I 4: What really worked for me was getting in there and actually doing things...in fact I took a tech camp, and that camp was helpful because I would help other people with their projects, and helping them helped me. If I didn't know it, I would have to go back and find out the answers so I could teach them.*

#### *Partial Participants*

Partial participants most frequently indicated the quality of the instruction/instructors as an effective element of their training. Eight out of the 12 partial participants indicated this, and three sample responses are,

*I 10: Um...the one-on-one instruction through the director. She showed me an example of a program, and that is what I based my work on. It's hard to pin-point exactly. I would put stuff together and send it to her. She would put it onto a web page, so I didn't do any of the technology piece as much as I found internet sites and created worksheets-I did what I could on the instructional piece and then I would send them to her. It was mainly the instructional pieces more than the technology.*

*I 14: I think the instructors were flexible and so knowledgeable. I was given enough information, and then it was that you are going to lead this discussion and sink or swim in a very safe place. I thought that was really, really helpful versus me thinking I knew how to do it and then having real students and completely you know...losing it.*

*I 20: It was a good introduction to online learning. They did model, which was helpful. They had a clear syllabus and set-up materials. The instructor was terrific. She was clear; she adapted to the level of the participants. Those were the pluses.*

The second most frequent response referenced satisfaction with the amount of hands-on training. Four individuals mentioned hands-on as an effective component. Three of those responses are included,

*I 11: What worked for me was actually using it live during a course. We--the participants in the training--were the students in the class, so we*

*could see exactly how the teacher could respond to it. You could send notes to each other--that really helped a lot. Especially getting the concept of what the kids would see when they were learning--also, getting a sense of what would transfer into the online environment. Also, the lag time--um, not that's it is great, but it was interesting to see how that would affect the communication. Probably the fact also that every person in the class was also trying this for the first time. We didn't know what we were doing, so we plodded along together. The second time it was really helpful to see what people had out there and knowing where people went with it. The only drawback was I remember thinking--I could never do anything that good. It did help me realize the potential of what could be done.*

*I 14: Then one of the Saturdays, we did it at home, and we had to do a presentation through the chat room which I thought was great. I mean it was extremely nerve-wracking. I couldn't imagine that after so many years of teaching I would be sweating bullets at home at my computer.*

*I 16: I thought the actual teaching of the lesson--that was actually really helpful because you saw how all of the online components came together and how they would work. That was what I found to be most helpful.*

The third most frequent response partial participants offered was a safe environment. Three participants referenced a safe or comfortable environment as an effective element of their training; two responses follow,

*I 14: It was a good environment, safe...I was surprised that when we were in the chat room, I thought it would be cold, but we were laughing and everyone was doing the "lol"-laugh out loud.*

*I 21: Well, it was a comfortable environment...that helped. I was working from a course that had not yet been written. That complicated things. But, I would say that the pieces they laid out for me were sequential and, um..., helpful in that regard. Their willingness to assist was wonderful.*

Two partial participants offered comments that identified the collegial nature of the small groups as being an important element in their training experience. They liked having a person to turn to with questions even after the courses were not in session. The following comment presents this,

*I 12: Surprisingly enough, being an educator, my need for verbalization is great. I respond to the written word more effectively. The opportunity to talk with classmates and problem-solve with them is a high need I have. The instructor was great at showing us to do it fast, but it was another teacher who helped me work through issues I was having with a particular issue with the development.*

*Interview question: What were the more ineffective elements of the training you received?*

### *Full Participants*

Full participants, as a whole, did not identify many ineffective training elements. The most frequent responses identified too much of a focus on instructor presentation rather than hands-on experience. Three full participants made comments about instructor presentation. Two examples follow,

*I 1: Where they put a screen up and talked about it, but we were not doing it. For example, when they talked about transferring files and folders, it would have been better to be actually doing it for your own course.*

*I 5: The only thing that doesn't work well for me in technology training is when there is a lot of talking. The more hands-on the training where the instructor is looking for a product, the better it works for me. And, the more that they are long, drawn-out talking I get less engaged.*

Lack of instructor experience was another ineffective element a full participant identified. The participant noted that,

*I 7: It was a little more frustrating the first time through because I would ask what do I need and they could only answer, "I don't know". It was frustrating because no one had done it. It got a lot better as people gained experience as to what the pluses and minuses were on each page. A checklist-do this, do this, do this, make sure your page contains all of these things and how your page was structured and what it looked like was up to us.*

The other ineffective element that full participants identified was a switch in software. An example of this is,

*I 8: I think the most frustrating piece was switching programs. I just got the first one down, and then we were told we were switching. Not only web pages, but we moved out of Blackboard™, so there was a constant...I mean I just got how to create a chat session in Blackboard™, and we switched to the system we are using now. It's wonderful-I love doing the live audio-this last term was where I became most proficient in doing chat, but that was the fourth time. If you teach a traditional class every day, you teach the class three times, and you have streamlined the process. When you are waiting over a period of months to do a redo, it is a bit longer in the modification and polishing process too creating a real streamlined course, and by that time there is not time to go back and recreate and make changes in web design, especially if software has changed when you go to teach the course again.*

Other than this area, full participants who received individual training identified no additional ineffective elements.

#### *Partial Participants*

Partial participants provided more information about ineffective aspects of training. Lack of time to incorporate the training was mentioned most frequently. Responses from three of the four participants who identified a lack of time offer some insight,

*I 11: What frustrated me is that I didn't go right back to the computer and have what was there. There was lag time between. If I didn't have it, I had to go get it-I think if it was something we had as standard, it would be helpful. If it would have been right here, I would have been more likely to use it right away. If it were on the computer I used daily and I didn't have to go elsewhere, it might have worked better.*

*I 12: The speed at which we were cut loose. For me, and I think it was because I didn't have the chance to do a course immediately afterward. I needed follow-up. I need individual attention to get me back up to speed. I did it somewhat for a while online, but it was way too much to keep up. It was always an add-on.*

*I 17: Um...I guess if someone were setting up training it would be helpful to be concrete about what to expect. Inform their staff that it takes a considerable amount of time to do this.*

In addition to lack of time, four partial participants indicated that not working with an existing course or curriculum was problematic. Two of their responses follow,

*I 13: It's a little bit different for me because I was developing a course at the same time. If you had a course that you taught, it would be taking that course and...I think what they might have done that would have made it easier would be to say meet with the participants prior to the course starting-look at their course, what they were trying to put on line and say ok, here's...you might need to rewrite and here are the places you need to look at.*

*I 20: I just didn't have the time to do what I would need to do to feel comfortable teaching that class. The other was it wasn't one that I taught for a number of years. It was a class that I taught a few times, and the materials were handed to me. I thought they were dated, so the course itself needed work. I was doing two things simultaneously.*

The other reasons partial participants mentioned were a difficulty in understanding the vocabulary associated with the training, need for more written materials, need for a slower pace than what was offered, need for a partner to assist with course development, and concern about switching software programs. The comment regarding the shift in software is included as it also had a suggestion for a different method of delivering content in the form of principles rather than software programs,

*I 20: Let's see...I think one thing is, of course, the fact that is challenging is that the technology kept changing. I got that kind of understood, but by the time I was ready to work with the course, the technology shifted to another program. So, it seems that if it were taught according to principals rather than a specific program, that would be helpful--understanding things conceptually with principles, rather than being locked into a specific program.*

*Interview Question: What recommendation would you have to improve the training?*

#### *Full Participants*

Full participants did not offer many suggestions for improvement. One participant offered a suggestion to keep the small group training. That response is below.

*I 6: My recommendations would be to keep what they are doing with the small group cadres. Large groups would never succeed because you wouldn't be able to access the instructors enough.*

Another small group participant offered the suggestion of making the course development portion of the training relevant to an instructor's academic discipline. That response is included for review,

*I 1: I would say the more you can bring it to what the instructor has done-for example, if I have made a web page, then it s helpful to me to sit with the page and troubleshoot it. If you are talking to me about an English page-that doesn't help. It has to be relevant to myself to be significant for me to pick up. That's not to say this is the way for every person, but it works or me to keep it relevant. It helps sort so much of what has to be done.*

Finally, two individuals mentioned having a course ready to be placed on the web when an individual enters the training experience. One of those responses is presented here,

*I 9: I talked with director about this and people should be coming in having your information and knowing what you want to do in the class. Having a good idea of how you want to lay the class out. Having it prepared, so you could be doing it as you were receiving the training.*

#### *Partial Participants*

Partial participants offered a distinctively different set of suggestions. Partial participants most frequently indicated a suggestion for more mentorship and accountability. Four people responded with comments about a need for more mentoring opportunities in the training. Two examples of the responses received from this group are listed below,

*I 11: It would have been nice to see people's steps they took toward the creation of the course. I am not certain of how to do that, but it would have been nice to see a beginning to end process as a demo. Because, then I could say, that's where I am in the process. Otherwise, the process looks so huge. Part of it now that is a benefit is that there are more people to help you who have been through it. When you have to take an extra step it is helpful to have someone with you who has already been there.*

*I 14: I think it really would be nice, and I think it would be possible now that it is more experienced. There are more classes available. Now, it would be good if we were able to view a real savvy teacher, so we sit in the lab and we put our blinders on and pretend we are in the chat and that teacher can walk us through all the things that we do to make this possible. I think that would have been helpful to see what good teachers do to make this fly for their students better than just making it through our five-minute presentation.*

Four people also mentioned including some accountability for progress during the training. Two illustrative quotes are,

*I 16: Well, I think I would make it a requirement for whoever went to the training would be required to teach a course. I think that is the only way people internalize the process.*

*I 10: I would need more training than I got. I really learned by the seat of my pants and had to figure things out by myself. The director was a help-she met with me one-on-one, and that was a help. I think a more formal program would have helped hold me accountable.*

*Research Question #3: What factors influence the course development experience?*

All participants answered five interview questions that addressed course development. The first question directed participants to describe their course development experience. The next two questions inquired about parts of the course development process participants found enjoyable and part that were frustrating or difficult. The fourth question elicited responses that described the workload of developing a traditional versus an online course. Finally, responses were sought about the advice participants would offer to individuals just beginning to develop an online course.

*Interview Question: How would you describe your online course development process?*

*Full Participants*

Full participants identified a range of factors. Mentioned most frequently was to work from an existing course and convert those curriculum materials to online

documents. Four responses from the seven individuals who identified this factor are included here,

*I 1: Well, what we did is I sat down with what I already do in a regular classroom, and I pulled together stuff that the online program director and thought could be converted to online instruction. The stuff that didn't work, we tried to use the same idea, but different technology to work in an online setting. Then the director would develop the pages and then go through them with me. We started very simple with no forms. From there we next level, to the next, and we moved forward each time. It really is an amazing process. I have grown to needing the director by me to now just picking up the phone, and we can solve a problem in 30 seconds without looking at the computer.*

*I 4: Well that was one of the more fun and challenging aspect of it. For me...luckily I had a familiar curriculum to work from. The first thing I did was take the curriculum and transfer these elements online. The other thing was asking what literature was online. I had to find literature online that was comparable to what we were teaching. Shakespeare is online...Aynne Rand is online...Hound is online. I think those are all old enough so copyright is not an issue, but a lot of them...it is almost like an online library. Then I needed to figure out what the objectives were and how I could do that differently since I wasn't going to have face-to-face. The instructions had to be really clear because the students do a lot of self-directed learning. That's where it got tricky. That was the fun part of figuring out how I was going to do this. That's where I went to other web pages to see how they had done it. That was a great learning experience.*

*I 7: Um...I found out that without knowing it I used a lot of graphs and stuff on my worksheets and labs and things like that that were not easy to recreate HTMLwise. I found I really had to tone-down my expectations. Especially my first time through-- It became much too time consuming of a process to make it perfect the first time through. I couldn't, you know, make perfect chemical equations and graphs the first time through on the web page. It had to be much more tone-downed. I had to be more conservative rather than creating all of these web pages. I had to be more simple with the pages and include attachments with Adobe™ files that could be opened rather than spectacular pages. That was a bit of an adjustment.*

*I 8: I pulled together everything I had done in teaching writing. This was a course designed to help kids pass the basic writing test and complete their profile of learning in academic writing. So, that is what I did first. Then I did a search to find out what was already available online. I spent significant amounts of time doing that. I found incredible*

*web sites that are still being kept-up. The University of Connecticut--I linked my course to this information. I still get emails if there is a section down or they are re-writing things. That was the second big piece. Then I did an outline, and I tried to blend those two. So, my course has more links than most courses. I did not want to have the kids to have a text book-particularly with a writing course. It seemed like the more the kids could work with what was already available, that would be a good way to go. I then did a flow-chart. That was really important. Then I created a template for how the pages would look.*

Five of the nine full participants described their course development process as requiring an extensive amount of planning. These individuals used the web to locate existing electronic materials and documents to be linked with the course content they were developing. Two comments from the five individuals follow,

*I 6: I would find pictures and develop text. I would search web sites and societies online that I belong to. And I would see things a Chinese scientist had placed on the web, and I was looking to add them to my class. So now, I have a course I could probably teach for a semester.*

*I 9: I was fortunate because there is so much material online in my content area. What I first did was spend a lot of time looking at web pages and resources for my units. There was also that web quest and resources that people have already developed. Once I created kind of a booklet where I had units, web pages, and information from the web pages divided into sections. I then went back and tried to create the instructions. This is what you do first...this is what you need to do with this assignment...it was very, very concrete. This seemed to be more effective. Part of the issue too is that I wanted this to be rigorous. I really wanted to be aware of that and I wanted the experience to be similar. It was very content driven for this reason.*

When describing their course development experiences, most full participants used positive adjectives. Only one person who completed the online program described the process as a negative, painful process. That one negative response is included here,

*I 5: I have to say that for me personally, it is a painful process. Because I don't have a mentor because I am the mentor. I am on my own. I don't have anyone to be accountable to. So, when I first developed my first online class, my plan was to do it in the summer. Um...anyway...so it was painful because I wanted to get it done in the summer, and you think*

*you have oodles of time in the summer, and it absorbed my entire life with it in the summer because I would wake up and sit in front of the computer, and I wanted to do work, but I wanted to be outside and do lunch and be golfing, so I was really bad at structuring the time. I probably did 1-2 hours a day, but I was sitting at my computer for 8 to 10 hours a day. I was playing online hearts. I was at online shopping sites, and I was--I had a computer game at the time that I really liked, so I would do that for five hours at a time. Everything that you can get wrapped into in the Internet.*

### *Partial Participants*

Most of the partial participants indicated they had not used an existing "traditional" class as the focus of developing an online course. Instead, these seven individuals indicated that they used the web to locate materials that would be used in course development. Three responses follow,

*I 11: Um...incomplete...um...I had more fun going out finding stuff that I could use than actually...I got hooked on the computer piece of it and the Internet finding the materials rather than putting them back into a curriculum that was useful.*

*I 17: I wanted to develop web pages to provide content information for my students for 9th grade physical science. A lot of that information was disseminated from Internet resources or resources we had here. Those documents were essentially converted to PDF documents so they could be read by Adobe Acrobat Reader™. I created links to those documents so kids could access those online as well as being able to access web resources. That spiraled into this online course development because I wanted to somewhat eliminate some of the PDF documents and deal with more research materials-go out and find information about measurement. Therefore, this new course I switched programs when I was developing-Claris Homepage™ to Dreamweaver™. Again, I looked at online resources that were out there and different topics that we dealt with and came up with some information., animation, so on and so forth...by trial and error it's kind of pieced itself together as pages and what looks good and what doesn't.*

*I 20: Well, what I found is that it is very different depending on the discipline. When I went in and looked at the science and health classes and also looked at the Latin classes, it tends to be concrete sequential or going out to a website. I was doing a writing class where it was integrated and interactive. It was just a ton of work on the front-end, at least for me as a perfectionist, to conceptualize what that course is going*

*to look like. The other piece I thought was just numerous challenges. One of the things I learned from it was that I needed to do the course differently than I would do in the classroom. It had to become much more sequential-just a ton of time on the organization, knowing exactly how long things would take. I would say that was...thinking, rethinking the course in a different way. Almost like taking an English course and teaching it like a science teacher would teach it, and then, thinking with that structure, thinking how you would bring into the course the higher order thinking skills. That's what made it hard to get off of the ground. I got caught up in the construction of the course itself.*

Only three of the partial participants indicated used existing courses as part of their course development process. Two illustrative quotes are listed below,

*I 15: The packet...We thought a short story course would work well, and so we looked back on the things we used in the classroom, and we...um...tried to imagine what a unit would consist of, how much time and all of that would we need to get it together, so that is in my head. I think it is just time that gets in the way of getting this done.*

*I 21: Well, I tired to play-off of the junior high course...actually, the training in the course. The course I was interested in offering is sort of unique in a regular class meeting setting. Um, and the attempt is to develop autonomy in the learner, but also to use that through a group process. So, trying to figure out what elements they had in the previous class and building on those at the senior high to work within the setting that the technology offered, um...just became somewhat overwhelming. It would have been nice if I could have developed this and tinkered with it on site, and then figured out how it would fit with the chat groups. I think that we would have had to give up something in terms of group process in that forum, and I didn't know enough about it yet to know what was being given up.*

One of the individuals who used existing course materials experienced frustration with adapting them to the online environment. Her comment follows,

*I 19: Time consuming. I kept changing assignments. The director would say this isn't specific enough, and I would go back and rewrite it. I think it was the initial preparation of putting the data onto the site-not unlike preparing for any new course. I already taught the course, but I was tweaking it.*

Two of the partial participants made specific reference to the extensive amount of planning that went into their development process. One response example is presented here,

*I 13: First, let me say that It takes a lot of work to do develop this stuff. Um...I used a variety of textbooks that I knew were comparable to the course I was adapting. I was looking at the text and the curriculum, and I had my adapted modifications in my head. I worked from that format into creating the actual web pages, and then I expanded beyond. I went from the hardcover format and then supporting them directly with online resources to use. I then developed kits that students would come in and pick-up for some hands-on experience. The kids I was working with were EBD kids, and I knew they would need those kits. So...hitting modalities and meeting the needs of kids in a different manner is very cool and very fun.*

*Interview Question: What parts of the course development process did you find enjoyable?*

*Full Participants*

Full Participants enjoyed learning new instructional delivery techniques, learning more about their course content, gaining an appreciation for the traditional classes they taught, working with colleagues, and pushing the boundaries of their proficiency. Three of the six responses indicating enjoyment of learning more about content are listed here,

*I 3: Going through 150 environmental science books-I found all of it enjoyable. It was really cool. I think I learned a tremendous amount about my subject matter. I had to read everything up front. That's different an any other course you teach. The first time I taught Astronomy here, I knew that at the least I had to be a week ahead of the kids. With the online it has to be up, or you at least have to know how it is going to be put up because it is more rigid. I am an abstract random guy. It forced me to put things into a grid and this needs to be here and this goes here, and um...just what page you have to be on. You have to be on schedule. It forced me into a new style. It was also fun to make the web pages too.*

*I 6: It helped me learn it better. It sounds funny-here's a guy who is not licensed, but here he is in a high profile astrophysics symposium. I have learned so much about gamma bursts and white dwarf star that I am now adding them to the class. The more I wrote in; the more I was learning. My wife thought I was weird, but I couldn't sleep when it was done.*

*I7: I think that to be able to really critically think about what I was teaching and what qualities are really truly important...But, at the same time it really helped me organize my thoughts in my traditional course. Um...it really made me put down on paper a plan of what my course looks like-both on line and regular.*

Three of the full participants commented they enjoyed the chance to learn new instructional delivery techniques. One of those responses follows,

*I 2: I used the guiding standards for the US history class for what was to be taught. I looked at the special questions I wanted kids to be able to answer when they took the class. So I considered assignments, readings, and activities I wanted to include so kids could show their understanding of the class. I really looked at it, and I am still in the process of looking at ways I can use the software so I can have kids participate in their learning, so it is not just me to them, it would be them to each other. I am wondering about small group assignments and posting their thoughts to a message board and then students have to respond to their classmate's opinion. So, those things I don't know yet about all of the options that I could do. I think that is something that will come with experience and time. That has been the fun part-when I look at what's enjoyable. It is seeing what are the different options. That has made it fun.*

Two full participants indicated they also appreciated this online experience because they gained new awareness about the greater flexibility over teaching in a traditional, live classroom. One explained,

*I7: I think it helped also to appreciate what I did in the classroom. Some of the stuff I don't have written down that I just do. I found that that really makes me appreciate what happens in a regular classroom-an onsite classroom. Online its really hard to create that on the web. I think that was enjoyable-frustrating and enjoyable at the same time to realize all the cool things that happen.*

Two additional comments were offered by participants. One individual stated that she enjoyed the human relationships she was able to create online and she enjoyed as pushing herself to develop skills she did not previously believe she would achieve. Her response follows.

*I 1: Well...building human relationships is very enjoyable. Getting to know the director and instructor was rewarding to me. Also, pushing myself to a place I did not know I could go has been rewarding. I credit the director for helping me believe I could do it when I had given up.*

Another individual commented that she enjoyed the technical aspects of the instructional delivery,

*I 4: I loved the designing of it. I loved getting into the code and learning how to do forms. I love to learn new ways-locked pages. I love all of that stuff.*

#### *Partial Participants*

Five of the 12 partial participants indicated that they enjoyed learning new instructional delivery techniques. Three sample responses are included here.

*I 17: Well, what I liked about doing it was initially hearing information from my students letting me know they went to the site and just the fact that someone was looking at it, and finding it useful. Parents also initially commented on it and being able to access it. I liked the technology piece just because I think it is part of what our future is going to be about. Accessing information is vital for students, and if I can find new and better ways to do this it helps the program-I thought that would be critical. Whether it's my students or other students, it forced me to look at it and analyze what I was doing.*

*I 20: I found a lot of benefit to that (course development). I don't tend to be concrete sequential, and so to have to shift and flex to that style was good because that would be a benefit to those students who don't think as I do. So, I enjoyed just looking at instruction and what is sound instruction from different perspectives.*

*I 21: I liked the opportunity to create it-to see what was possible. I think my process was to believe that there was more possibility than existed at the time. We were limited to certain things at the time. I think appearing on site for specific sessions for example-having all of the students in a chat group at the same time would be interesting.*

Four of the partial participants identified working with one's colleagues as an enjoyable part of the development experience. All of their responses follow,

*I 10: Um...working with the director was fun. She was knowledgeable...I liked that kind of creation on my part with something new-a new way with something I have never done before, so it was a challenge. It was fun! It was fun learning more about myself and thinking wow I can do this--this is cool.*

*I 14: I loved working with my colleague. She was also great to have in the class because she had...I mean her website was way more than anyone else had, and she was quick. It got to the point where she was so quick. I ended up saying this would take me forever to get through, and I'm not sure how interested I am, so I can give you whatever I have and you take it. It seemed like at that time I was not as interested as she was, and I couldn't see it as my forte as a teacher-that style. She had it all going on, so I thought go for it!*

*I 18: I really liked the relationships I established. I found myself questioning what I was putting together, so it was helpful to have a colleague collaborating with me as I was working on putting it all together.*

*I 19: Working with the director; working with a group; as far as that process...I liked the input of the group and learning what other teachers had done...accessing the internet-I mean I was able to contact a professor who taught a similar course, and we exchanged e-mails, and he was interested in what I was doing. That was a lot of fun-the research.*

In addition to being mentioned in the preceding quote, online research was mentioned by one individual,

*I 11: Well, I don't know about...I thought it was exciting to find new resources. That is true no matter what-much better than sitting at the stacks at the U of M. with the internet, you would go on these birdwalks and your interests would take you on paths. That is the fun part of getting hooked into that. Graphics-making it look presentable and how other people have made it look. I would go and see what others have done, and I would come back and ask if we could make ours look like that. It was steps ahead of my technology expertise, and it was the visual stuff and the connecting stuff-that was exciting.*

In contrast to the full participant group, none of the partial participants indicated developing a greater appreciation for the traditional classroom.

*Interview Question: What elements of the course development process caused you frustration and difficulty?*

#### *Full Participants*

Seven of the nine full participants identified working with the technology as their greatest frustration. Specific comments were made about the technology software and hardware. Also mentioned was a frustration with revising materials when web pages expired. Three illustrative responses follow,

*I 2: Technology-having a computer crash. I have worked from three different computers, and that's just a fluke. I don't think anyone else has had this problem.*

*I 4: Like I said, when you don't have audio capabilities it is very hard to type dialogue, and the chat piece was really important. The other part I found frustrating was students who used the technology-I know I e-mailed this to you, but you didn't get it. I had no way to prove they didn't. That sort of got in the way. When the technology doesn't work it is frustrating.*

*I 8: Well...outside of changing software--that was the biggest frustration was just getting it set up and then switching to another-I understand why, but I still don't feel like I have expertise with Dreamweaver™, but that has to be something you want to master being a web designer. Another thing--as a special educator and thinking in terms of differentiated instruction-I think there are a lot of challenges to having software and ...we are going to grow in this arena with turning on your screen and seeing choices that are available-having some of the information read aloud to you-those are things we need to get better at, and we need to do it quickly. There is better software all the time, and in fact, our tech persons told me that the new version of Dreamweaver™ has some of that built in. That is just becoming part of how we deliver learning, and understanding that is critical. I think the digital world is going to hugely change the way special needs kids learn, and I am not so sure we are going to have as many special needs kids as we offer these differentiated possibilities.*

Four individuals who made comments about technology also made specific references to time as a challenging factor. All of their responses are included,

*I 1: Time...I remember early on spending literally an hour to develop a title. I remember being very frustrated with the intricate nature of the work. If you have one comma out there that is not in the right place, it is not going to work. You want to figure it out on your own, but you end up calling someone to help you. Yeah, time and details.*

*I 3: I think that the traditional course I would not necessarily have to develop the presentations in the format that I am right now. Using the PowerPoint and the whiteboard-it takes more time. It is the presentation of the instruction that is in a different format.*

*I 9: The technology is the most frustrating. Finding a great web page and by the next time you use it, it is dead. Having to constantly change that and monitor that. But, the technology always seems to have some challenge in there.*

*I 6: Having my wife telling me you have got to spend time with your children.*

The final challenge that was identified by just one of the full participants was the solitary nature of the course development process. He shared,

*I 5: What was most frustrating was my lack of connectedness to someone I was accountable to. That whole creative talent...I am really a left brained person who likes to jam out things, but I don't always feel creative. I was insecure about the quality of the course and so I think I still wrestle with that and did throughout the entire process.*

#### *Partial Participants*

As with the full participants, time and technology were most frequently identified by the partial participants. Three partial participants described their experiences as cumbersome, highly involved, and complex as evidenced in the following quotes,

*I 13: Um...not necessarily...I think sometimes my-I wouldn't say ignorance-but I am not as computer savvy as some people are. I am better than others, but I am not as savvy as some people, so obviously the more that you knew made it easier. And, you know some of the terms...I learned*

*a lot, but if you came in with that knowledge already, I would have been able to go to the next step that much quicker. You are trying to teach an old dog here new technology. I have not been trained like today's students.*

*I 14: I think that the technology was cumbersome. You needed to go and do so many steps to get to the e-mail, http, so many things that.....kind of minutia I didn't have to know to be a good teacher that you had to do with online learning...it's like PASCAL learning coding...I remember thinking that there had to be an easier way.*

*I 17: The process of creating web pages is frustrating because I don't know everything about creating them. Learning it myself was a difficult piece. What is frustrating now, is that I now know some of those pieces are wrong and not working...so I have to start revising their function, and that's a frustrating piece. I guess another would be the production of web forms, which is trying to increase the interactivity of some of the information on the web. I would spend hours and hours and hours, lots of time dealing with that. Time aspects also as I think about the entire course as a whole, and how to budget creating it all.*

Regarding time as a frustration, , time to learn the technology and the time it takes to consider the actual design of the course were both articulated. Three sample responses are listed below,

*I 15: Time...um...I think I am not clear on what is the best way if I want to teach a short story like the "Lottery". Should I be looking for online sources, or should I be making a packet with the story? Is there an expectation that we don't want to have paper? Do we want everything online? Is there a right way or wrong way to do it? So, I think I spend way too much time at the beginning trying to find sites with the stories on them. It amazes me that they are out there, and you can just direct someone to the site to read it. But, a lot of kids don't like to read on the screen. I don't. So, do you find a book? We do have one in mind, but...it's those kinds of things. I don't think they are necessarily frustrating, I am just wrestling with them.*

*I 20: I just didn't have the time to do what I would need to do to feel comfortable teaching that class. The other was it wasn't a course I taught for a number of years. I felt that...and the materials were handed to me, and I thought they were dated, so the course itself needed work. I was doing two things simultaneously. I know you will address this one, but the workload...they are very different that teaching a traditional English class. I just...to me there was quite a bit more work. The organization has to be*

*really on top of it, and there is no verbal interaction like you can clarify in a classroom. There is the chat room, but when I began, the chat room was very minimally developed. Even at this time, I think it is pretty limited in its function, as opposed to what I would think in comparison to sitting in a circle and discussing.*

*I 21: Time-Well, I think the frustration was more also with myself. It wasn't so much that I couldn't get the technology to do what I wanted. I didn't know what it would be able to do.*

Beyond these two areas, one partial participant expressed concern for the long-term funding of the online program,

*I 17: Right now another frustrating piece is not knowing what the status of the program will be. Funding... it needs to be funded to continue.*

Another concern came from a partial participant who anticipated developing an online course for special education students. She articulated the following comment,

*I 12: Resources were challenging. The whole concept that they were not aware...I think the people who planned the course were very surprised that special ed people would be interested and not be give the value at the same level. It was clear at the high school level that our course was not valued as much as a traditional class. The system was simply not ready. Eventually, I think they won't be in this place, but that was a major frustration.*

In addition to the concern about the system being able to handle a special education course offering to high school students, this individual also expressed concern for the digital divide. Her additional response is included below,

*I12: I think that maybe the other frustration was that I was aware of the digital divide. I had written a grant to supply for special needs kids, and I was looking at...so now we have the class, and we know who needs to take it, but guess what...no computer at home! Looking at computer resources; looking at community supports; looking at those who are using every support they already have; looking at how do we train families to be comfortable--these are frustrations that need to be addressed.*

Finally, one partial participant expressed concern for the lack of mentoring available at the start of the program, and expressed frustration about the difference between the online classroom environment and the traditional classroom environment. She stated,

*I 14: I think the thing that makes it hard is that there is no pool of teachers to go to say hey how would you run this or do that. I viewed it as being heavy up-front with all of the things you needed to do, and I think maybe it would be different the second time through. I also felt you couldn't do that "tap-dance" in front of the class, and I remember not feeling I could do that in an online class if I needed to. I didn't have the freedom to develop what I needed to right on the spot. I would need to buy stock in deodorant to teach in this type of class.*

*Interview Question: How would you compare the workload between developing a new course that would be taught in a traditional manner and developing an online course?*

Participants offered their perceptions about the workload of developing a traditional class compared to an online class. The researcher categorized their responses as falling into three categories: equal, greater, and far greater. No one felt the online course development process involved less work.

#### *Full Participants*

Four full participants responded that the work was, for them, equal. The other five individuals responded that the workload was greater in an online course. Individuals who responded that the work was equal qualified their responses with the following explanations,

*I 3: Um...I think it is balanced. I think it evens out. It is more work up front. You can't just wing it. It has to be online and complete and spellchecked and worded correctly and checked multiple times to make sure the material is there. Like here in the classroom, I have everything I need. I am one of those teachers who never uses the same worksheet twice. A lot of my prep is mental prep. I walk into a room, and I can have everything in my head. I have to get it on paper for the web page. There is a lot of up front stuff, especially when you start deciding what you need. The first time I taught it, it was a lot more work. The second time it was here for me to edit-that was not a big deal to do. I did that pretty rapidly. It was no nearly as much as e first time. The first time it was double the*

*work of a traditional course-for me. If you are trying to make fancy webpages it might be triple the work.*

*I 5: More-but probably more rigorous with the online course. Assuming someone needs to learn the technical skills as well. For me it was more equivalent because I had the technical skills. I do remember developing my first course, and it was very challenging. I couldn't do exactly what I did in my traditionally course. So, I would say more and greater.*

*I 6: Equal-developing A.P. biology-that was horrible. That was 1:00 every night. When I taught A.P. biology, I knew I was facing the best students we had, so I was trying to anticipate what students would ask that I would not be ready for. With online, I had more time to figure answers.*

*I 9: I think the workload is similar only because I did not do the technology piece. The director did the technology, and I provided the curriculum and content pieces. Um...If I had to do all of it, it would be three times as much. I think the content part is equal, but the technology would be twice as much. She is just so fast...maybe once I did it, it would get better, but that initial time would have been unbelievable.*

The five full participants who identified the workload as "far greater" clearly articulated that learning the technology and designing effective instructional delivery techniques were major contributing factors in the amount of work that was necessary to teach the course online. Two sample responses follow,

*I 4: Way more work for an online! Way more work! Because, almost everything you do has to be developed visually through technology. So, it is a lot more in terms of hours. You have to think...all of your concepts have to be able to be represented visually. You have to help them get it by showing something visually. During the chat you can go over some, but your writing has to be really clear. You want to use images over words if possible, so that was huge.*

*I 8: I'm thinking could you do it as a multiple of...five times the work. I don't know if that would be a good way to say it-it has plusses and minuses. I am having new thinking about it with the new work I am doing with creating modular units for short-term students. The time commitment was huge, and the first year I was working sixty hours a week doing this piece. I was working full-time and doing this development. The time you put in did not get covered by the stipend you were getting. The payback was the experience. The second year I had five different courses we were*

*going to develop, and it took me more than half a year to get back up to speed and redesign the course that I had been working in. I taught that course twice during the school day. That was another experiment. So, you know the time factor was huge.*

### *Partial Participants*

Of the 12 partial participants, only one felt the workload was equal. One other person described the workload equal. All others described the workload as far greater than a traditionally taught course. Two examples of those who described the workload as far greater follow,

*I 12: Much greater. It was much greater! It was much greater for me because I knew my curriculum so well, and some of it did not translate well into an online class. It was sucky! S.U.C.K.Y. It was awful. I had my own kids take the class and after 30 minutes my youngest daughter said, 'You have got to be kidding!' I started, then, with working with kids to help me get a feel for what kids would need in the development of the course. Maybe if it were not so heavily technology based, that would not be an issue.*

*I 21: Exponentially larger.*

*Interview Question: What suggestions/advice would you offer to someone who is just about to start developing an online course?*

The last question in this section was presented only to partial participants. Full participants were asked to share their advice later in the interview after describing their online course implementation experience. Partial participants were asked to reflect first on what advice they would offer to someone who was considering developing online course materials. Two suggestions were mentioned by multiple partial participants: (1) get prior experience in online instruction and technologies before undertaking the course development and (2) work collaboratively with others to help ease the workload burden.

Presenting the view that prospective online course developers should gain some outside experience are the following two sample responses,

*I 12: Take one yourself. See if there are a lot of schools out there that have been offering online classes, see if they would let you do*

*something without a grade...see if they would let you audit the class as a colleague favor. Why not look at that as an option for an online site visit. I was also thinking recently that I don't have the opportunity to visit other schools. What I really would love to do is to visit other schools and see what they are doing.*

*I 17: Get some training first in particular programs you will be dealing with. Be aware of how much time you have to offer the process. Make sure or ask someone if they are really into the technology for the long run which is dealing with the changes that will take place as you work through the process-continually updating.*

Three of the 12 partial participants advised that the opportunity collaborate with another teacher would support online course development. Two participants shared,

*I 10: Have a good plan-and I would suggest it to be collaborative. Find a partner. I would also say talk to the students-like a target group of students you could trust to give advice and input on what types of things they are looking for when they learn with a computer. I'd put some of the students to work in seeking curriculum materials.*

*I 11: Have a partner! Have someone to work with. There are times when you get frustrated, and to have someone to dialogue with when you are frustrated and holding you responsible for some progress. I am an independent worker, and I probably could do this by myself, but I haven't yet.*

Other suggestions included plan ahead to know what materials you will need to develop, have an already existing curriculum to draw upon, find a way to get more time to spend on course development, and be comfortable with technology. Sample responses follow,

*I 14: Be very comfortable with technology. Have it so it is just your nature and you love it. You want to keep on digging and finding new things. Second thing, be comfortable with the course content. To have to struggle with not only...I mean to have to struggle with content and delivery...WOW...I mean that would make it very difficult.*

*Research Question #4: What factors influence online course implementation?*

*Interview Question: Tell me about the first time you conducted your online course.*

Only the nine full participants were presented the two interview questions related to this research question. The first question sought participant descriptions about the first time they conducted an online course. The second question sought advice participants would offer to individuals who were about to conduct an online class for the first time.

In responding to the first question, full participants included descriptions of the students they were teaching as well as the difficulties and success they experienced. Clearly evident in the responses was a different means of discovering student personalities that was more devoid of judgments that are quickly made in face-to-face interactions. Specific references were made about a population of adjudicated youth who took online courses. Seven out of the total responses follow,

*I 1: I had kids who were adjudicated youth as students. They had a support teacher. I was just amazed that it worked. It was really an amazing thing for me. I sweat a few times, but remember we did not have the best of programs to begin with. The voice software is incredible-stressful, but incredible.*

*I 2: It was interesting because I wasn't sure about the tools they would have access to as far as they could type and use the microphone to chat. They could also write on the whiteboard. I wondered if they had that capability, what might appear on the whiteboard. It was fun to get to know them as far as who they were personally too--their personalities come to life more than I expected.*

*I 4: Um...well it was during the summer. It was students who had failed English 9, and here's what I learned. If you didn't pass a class with a teacher standing over you, then a self-directed online class it is probably not going to happen. You don't have to face anyone. So my first experience was challenging. You get to know kids in a different way. A lot of kids who are shy suddenly would talk your ear off when they were online typing. It was a different way to have a rapport with kids.*

*I 5: The first time I had only four of five kids in the class which helped a lot. It would have been hard to manage a large group at that time. It was a really positive experience. I did actually engage with my students face-to-face because they showed up once a week for a lab, but otherwise it was online. If I think back ... I think everybody passed the course. I had a wide variety of grades. Someone aced the course, there was a 'C' and there was a 'B' too. It felt to me that there was the same range of ability as there was in the traditional class, and I found that to be interesting. I found it far more stressful to teach online because at the time we did not*

*have audio. I was trying to type really fast, so I was trying to present content and answer questions. Our chat software is far better now with the audio component. I remember finding myself multi-tasking. I would be going back and forth when I was teaching. When I was done, I would just fall asleep because I was so stressed out. It was hard to manage.*

*I 6: It was on Blackboard™--low tech. I sent them to web sites I didn't develop. We were so concerned about getting through the first experience, we weren't as focused on the quality. We were learning from students what would be effective for them. I didn't have many kids in the class, and they could easily provide me feedback.*

*I 7: In retrospect, it was pretty bad...the kids were aware of it...you know it wasn't like...they were aware that it was the first time through. Like I said, I tried to run it as much like the regular class as I could. That perspective was not the right approach to take.*

*I 8: That was in the summer, and it was at the County Home School. We have a unique environment there where the kids are incarcerated. They didn't have time to work in their cottages, so we set up time to work in the labs. We set up three periods, but we cut it down to two. There were twelve kids to start with. Two of them were working in biology and two were working with online history. Eight of them were working with me in online writing. I saw the struggles they were having, and I saw them outside of the class in e-mail and feedback. I began to catch how what you thought was going to be the piece and how that plays out with the changes you want to make in timing and what curriculum the students need to work on.*

Two full participants instructed online courses more than once and shared information about each of their online instructional experiences. Both participants provided information about each time they conducted their online courses. Their responses are included,

*I 3: It went very well-I think. There wasn't a ton of kids. I was told I needed nine; I found 15. I really liked being able to read something kids did at midnight. I responded to them at 6:00, and they would respond during the day. Everyone did it on their own time. The chat was not as good at that point. We had different chat software. The chats were very unproductive. We were also using Blackboard™--that was often down. The machines were not compatible--that was difficult. I was bothered by the fact that a lot of the kids just couldn't do it. They were not self-motivated enough to do it. Program directors targeted kids who needed*

*some way to get a credit. Those weren't the kids who survived the course. They were thinking it would be easier, but they didn't realize that I was very serious about what a credit means, and it would be an hour of reading plus an hour of homework a day. I was also very pleased--four of the kids were at the County Home School. They ended up with 'A's'. It was a really good thing for them. It was good for me to see that those kids could do it.*

*The second time I taught it, there were 12 kids, and 6 kids were at the chats and sending e-mails about how much they liked the subject matter, but they did not turn in a single thing. I lost six kids who couldn't or didn't want to do the work. I am not sure they got the message that it is a hard course with advanced reading skills. The other half all got 'A's'--they did all of the work and wrote good papers. Two of them were ninth graders. It was the kids who went home and read the pages and did the online assignments, did the book assignments, and then they e-mailed it right away every day who were successful with the class. There was one kid who was really into it but just was not organized--I am going to need a couple weeks extra. I said fine, and he did it.*

*I 9: I did it last year--second term, and we were using the old format. It was kind of an interesting experience. I think the kids didn't necessarily anticipate how much work it would be. I did a better job preparing them this year. It was a situation where they got behind, and I had to modify my chats because they had not done the assignments ahead of time. The chat sessions...the more I worked on them, the better they got. I started realizing that kids could be online and reading the paper or watching TV, so I developed more strategies to make sure they were engaged. That's continuing to develop. I am one who likes to keep modifying it and see how it gets better.*

*Interview Question: If I were a teacher who just completed developing an online course and I was just about to instruct the course for the first time, what advice would you offer?*

The most frequent suggestion that full participants offered was the essential need to stay in frequent contact with students throughout course implementation. Eight of the nine participants mentioned this critical communication link with their students. Three responses illustrate this point,

*I 4: I would tell them to keep e-mail contact with kids consistently. I would tell them to make sure to tell kids when you receive work from them you will send them a confirmation. If they did not get a confirmation, do not assume I got it. It is hard to keep track of everything that is coming in.*

*Design your e-mail so you have folders for each assignment and one that has work to do. You always need to know where your work is.*

*I 8: E-mail the kids every week at least. They need lots of contact. I found myself phoning them if I didn't hear from them. I think that contact with students is essential. I probably would say when you send a directive like you want everybody to do this assignment-send it a couple of different ways to make sure they have the message. If you are not getting work in, get in touch with kids right away. Don't wait because they may not be doing it. I had one student who finished the whole course in the last month-I mean he did finish, but that must have been all he was doing.*

*I 9: I would guess...well, to figure out a way to keep kids involved in the chat sessions. They would need a lot of feedback. Students had daily assignments. Especially difficult in the beginning to give and get feedback. I think that in terms of my experiences that was the best part of it because it keeps them engaged and you have relations with kids, but in a different way with e-mail assignments and getting back to them.*

Another suggestion that clearly emerged was the need be intentional about the nature of online assignments, including providing clear directions and collecting work in an organized manner. In addition to the previous responses identifying the need to stay on top of student work, participants also commented on the need to organize, collect, and provide clear assignment directions. Two examples are below,

*I 5: I would also say maintaining high expectations and being very clear about expectations and highly interactive. That means when the student turns something in you need to respond in a timely manner or the kids will disengage. It is all the more important that as the students do things, the work is assess quickly so you don't loose the student along the way because they don't have daily contact with you-that is my biggest recommendation-the essential need for e-mail contact and also the synchronous chat contact.*

*I 7: So the first time I was like here's the assignment, if you have questions, let me know. No one would let me know because I couldn't see them and ask, 'are you sure you got that?'...you sometimes see with kids on their faces that they are not getting it, and online you don't see that. You ask if they do, and then test time roles around and you see they don't understand. So, that was the biggest frustration with teaching it. You know, I tried to run it exactly as a regular class to give an equivalent experience, and it didn't work that way. My personality had to change.*

Two of the full participants also advised that a new instructor be prepared for the difficulty and potential "failures" that will result from the new experience. They shared,

*I 1: Be patient. You are going to make mistakes. It is really hard.*

*I 6: You are going to fail-don't worry about it. Kids are resilient. Admit to them that you may not have the answer now, but you will have it next time. Or, sorry about that the web page is down, let's see what else we can do.*

*Research Question #5: Are there factors that, if present, would have enabled persons who did not complete the program to achieve successful completion of the program?*

Only the 12 partial participants were questioned about reasons they had for not completing the entire program and whether there were factors that, if present, would have assisted them with going further in the online program.

*Interview Question: What reasons do you have for not fully developing and instructing a course?*

The reasons partial participants identified for not completing the program included personal circumstance; inadequate time to complete preparation for the delivery of an online course; incompatibility between one's preferred teaching style and the requirements of an teaching in an online environment; and a concern about the status of the program's future.

The most frequent reason identified by eight of the 12 partial participants, was insufficient time. Three representative responses follow,

*I 11: Well...I got the partner, but we both got busy. Maybe a deadline...we did set one, but it is not set in stone-life intruded. It is as simple as that. I think you really have to have passion and time to get the job done. It takes time to get it up and running.*

*I 13: I would say dedicating time to do it. It was on my work machine, so that would mean coming back and doing it on my time. And, it is ...I don't have a prep so the last thing sometimes the last thing I would want to*

*do is go to the computer because I have been at it all day. So those are the pieces. I have not given up on it because we are close to getting a page up, and then once that is there, it would be easier to say go to the next level or length of development.*

*I 21: It all comes down to time. I am not at all lacking in the enthusiasm. I think that the course work that has been developed has been a really exciting options for the students. I still see the potential there. I would like to develop a course, but I think in retirement. I would perhaps delay this until retirement.*

Three of the partial participants expressed uncertainty about the longevity of the program as a reason for not completing it. Two of their responses are,

*I 12: ...I was thinking that if I was North Central, I might say that the quality of my course was doubtful. It also needed to have more support from the department the class was coming from also. I didn't see that coming.*

*I 17: Uh...right now the big piece is the status of the course-whether funding will be there. I feel satisfied that the information, the content, is there. It's just the structure of the worksheets, the syllabus, or the assignments and the creation of web forms. I am happy with the content. As of right now the only reason I am not pursuing it further is that it might not be held. As of now, my work serves my traditional students.*

Two partial participants indicated an incompatibility between one's preferred teaching style and the requirements of an teaching in an online environment. They shared,

*I 14: I would say that...it made me appreciate different people and how there are other people who that is their forte...I mean that they are so savvy, and they aren't part of the 'work the room teacher' as I am. That also means there are kids out there who for them my style is what they need. That's just my style, and I realized it wasn't a good fit for me. I realized it wasn't what I needed.*

*I 20: Just one other on the last one...I'm not sure it's a style fit for me. I think it is a better style fit for people who are concrete sequential. I think there are some teachers who are teaching these courses who have a random style, but not as many, so...what are the supports...I think that the support was here.*

*Interview Question: Were there any supports that, if present, would have helped you complete the program?*

Not surprisingly, in response to this question, 6 of the 12 partial participants indicated that additional time would have supported program completion. Three samples of the responses are provided here,

*I 14: Time, and that would have been it. Give me 27 hours a day. It's the type of time that is not available to teachers period. It's one of those things where we can dangle money like say summer writing time and you would not find teachers even if you offered \$27 an hour...it's not a matter of just money...it's a matter of time...you feel like your life is turning one dimensional with just the educational piece.*

*I 20: I just would have...If I had a nine weeks and that was my focus, I would have done it. I think there were too many other things during that time to be responsible for.*

*I 21: I think what is needed is there, but it is terribly time consuming.*

The next most frequent response came from four individuals who suggested that additional support from colleagues would have kept them in the program. Three of the four responses are listed below,

*I 11: No...I think the support is there in terms of technology assistance. They are there once you get to a place you need them. So, I think that's good. Just the instantaneous stuff on the computer would have helped me. If I didn't have to go and get material. Just deliver it to me. Maybe they do this, but I am not in it enough--support groups, like cohorts. If we were told we had to get together once a month and show what we had done, I think there would be more accountability. No one is holding me accountable. This interview is the most accountability that came down the pike.*

*I 10: Again, I need the collaboration. I think there is an interested teacher, but whether there is something with the other teacher and she is not interested, and they can't find someone-I really need the communication piece to happen.*

*I 16: I think that if I would have taken the bull by the horns and talked to people in special services to try to find a class to develop, I could have done it. Maybe if I would have taken my English license and approached the English department about developing an English course online...it just became an extra thing for me, so I never put anything into it. Maybe having help in fine-tuning what my role would have been. That would have helped.*

Compensation was the next most frequently mentioned response, indicated by three individuals. All of their responses follow,

*I 12: All of the things I mentioned, and frankly money. It was damaging to find out that as special educators we would develop this, and we would not get paid. That was a biggie! They didn't think about us. It did not occur to them that we would be interested. I was so angry, I am afraid I did not further the cause. I hardly get to that stage any more, but that ticked me off so badly, I was completely inarticulate.*

*I 17: I think time would be a big piece. Of course money along with that. The status and making sure your work would still be there. Naturally, I would pursue development of what I have further anyhow, regardless of pay that was available, not per say the online course, but for the quality of my classes and using technology integration.*

*I 19: I hate to say this but time is money, so that's a factor too. It's time consuming and you want to use your time, and it takes a lot of time to do this application.*

Finally, two individuals mentioned that updated equipment at their home would have supported program completion. They did not have home equipment with minimum technology requirements to run the online software. A sample response is,

*I 16: My personal equipment--at the time I took the class, my personal equipment was outdated. It would have been easier for me to have equipment. Even when we did the training-if we did anything from a remote site, I would have to ask them to help me find a place to use the equipment.*

*Research Question #6: What are the perceived effects of online course instruction for students?*

*Interview Question: Tell me how the students responded to online instruction?*

Only the full participants responded to the interview question that sought information about the instructors' perceptions of how students responded to online instruction. Responses addressed a wide variety of topics, including attendance, qualities of student engagement in online chats, differences between home-school populations and public school populations, successes and difficulties with credit make-up students, challenges to online curriculum, and the amount of information students are willing to share with the class were all mentioned in participant responses. Many respondents also shared that some students responded differently in online environments than they did in traditional classroom formats. The seven transcript excerpts below illustrate the range of responses participants provided,

*I 1: It is very interesting. I read a statistic somewhere about how many students will be successful. They will either love it or hate it--there is no middle ground. The ones who respond well respond in amazing ways. Well there are many experiences of success, but one of the recent ones is a kid who asked me if I would stay after everyone left. I said I would. I used the microphone, and he didn't respond. I asked him what was going on, and he let me know that he takes the class because he can't talk in front of people. He had been kicked out of schools for behavior problems and he was taking this class because it was a way of hope for him to catch up. I eventually told him that the reason I am teaching the class is for students like you. There is no way I am not going to let you be successful if you want to be. Even if this program only helps him, it is worth it. This is his last option. He doesn't survive in public schools. This is huge for him!*

*I 2: I think that the students they tend to like this class because they can go at their own pace, and they can work on it at 1:00 in the morning. I get e-mails from the weirdest time of day. They have that flexibility in their lives, so it is not as structured. So having assignments posted and a calendar they can follow helps to monitor and adjust as you go.*

*I 3: A lot of kids right away--with the home-schooled kids especially--way too much structure. Would say 45 minute chat, and after 45 minutes they would sign-off even if we weren't finished. I have had the most difficulty with home-schooled kids. They do not like being told when and where. They did not handle it well. I find the kids who do the best--I suppose you could predict this--the best kids are those who are interested*

*in the subject matter. They stuck with it, and they did it well. One approach I took this time that I did not take the first time was taking the first 10 minutes of the chat talking about nothing but the kids and what they are interested in. It really made a difference. The kids responded more and along with their assignments they would send personal messages and carry on an engaging conversation. I was surprised at the benefit because some of the kids taking the online class were also students I had here-they were shy here and never, ever talked. You can't shut them up online. It was really cool to see the difference. It is the medium that works for them-the keyboard, not their voice.*

*I 4: If they make a mistake they are not standing up in front with everyone staring at them. It takes the humiliation out of errors. When you make an error, it feels different. The kids seem to feel more open in an online environment. I don't know if they elaborate as much online because they can't type as fast as they can talk. You do get a much more clear idea of what they understand because of the way that they need to respond.*

*I 6: Well, you have a different kind of response. The kids online are more comfortable in telling you what they think. They are not a face, they are typing on the screen, so some of them are more open with sharing. I never had a disrespect issue. The kids were highly respectful. That was fun.*

*I 8: The students at the County Home School loved it. There were some incredible things that happened. One of the things the paraprofessional said to me when I asked her what she saw kids getting out of it was that they were autonomous learners--they really got a lot out of it. They took ownership for their work. They were self-directed. They supported each other. There was some really incredible things happening as far as kids taking ownership for learning and self-sufficient learners. That was huge. It was unexpected. Over 70% of the kids that took the course passed the basic standards test.*

*I 9: I have learned that you can have a pretty engaging class online. I was a little skeptical that you could establish relationships and have a good experience online. For some kids, I believe that this is now a better experience for them. Online they feel safe and it is unbelievable what they are willing to say. Last term we were doing a physical intimacy discussion, and in class, kids don't participate as much. Online I had them free-writing responses on the whiteboard, and it was an unbelievable response. A much freer response from kids who would not have traditionally responded in class. It really is a safe place for some kids. With this you could give them immediate feedback too. There was good interaction happening in the class.*

Numerous instructors also remarked about the differences between teaching students who had high achievement patterns in traditionally taught courses and those who were looking for credit make-up. Instructors' comments indicated that students who had high achievement in traditional courses also had high achievement in online courses. Likewise, those students who enrolled in an online course for credit make-up had difficulty completing the online course. Four responses that speak to these differences are listed below,

*I 3: They targeted kids who needed some way to get a credit. Those weren't the kids who survived the course. They were thinking it would be easier, but they didn't realize that I was very serious about what a credit means, and it would be an hour of reading plus an hour of homework a day. I was also very pleased-four of the kids were at the County Home School. They ended up with 'A's'. It was a really good thing for them. It was good for me to see that those kids could do it.*

*I 4: I think the students that are motivated and get bored easily in classes tend to really like online learning. You can go at a quicker pace. I can still get at-I can push them more.*

*I 4: ...well it was during the summer. It was students who had failed English 9, and here's what I learned. If you didn't pass a class with a teacher standing over you, then a self-directed online class it is probably not going to happen. You don't have to face anyone. So my first experience was challenging.*

*I 9: Suitable for some students but not all. Students need to be motivated. My last session was with kids who tend to be overachievers in school, and this format works well for them...they do the work...they keep up. I just see it as a benefit for some students.*

Two full participants commented about student behavior. One shared that attendance improved. Another offered that students were highly respectful online. Illustrative quotes include,

*I 9: The other thing I was surprised with was attendance. My attendance was fabulous. If they didn't attend a session, the new format allows them to make it up by listening to the recorded sessions.*

*I 6: I never had a disrespect issue. The kids were highly respectful. That was fun.*

*Research Question #7: What are the effects of online course instruction for the participating teachers?*

All full and partial participants responded to the interview questions aligned with this research question. Even if participants did not instruct an online course, the researcher wanted to know the effects of their participation in the online course development and delivery program. Two questions were asked: (1) What have you personally learned from this experience? and (2) Has your experience with online instruction influenced how you teach and think about instruction in your traditionally taught courses?

*Interview Question: What have you personally learned from this experience?*

*Full Participants*

Responses from the full participants clustered into five areas: learning about technology, learning about online instructional delivery, personal growth in terms of instructional abilities, a better understanding about the types of students who could be reached through online learning, and a greater appreciation for the traditional classroom.

Seven of the nine full participants indicated learning about instructional design techniques. Three exemplary responses are provided below,

*I 3: I have learned a lot about technology-doing a PowerPoint in a lot less time than I would have experienced. I learned that it is important to engage kids no matter what the format is. As I think about what I do it also taught me to be patient.*

*I 5: I personally learned more about the importance of instructional design...I also learned about information with teacher-student contact. It has become more apparent to me that more people who are self-motivated...self-motivation is rare. It is not something very many people have a lot of. I think that we need to rely on other people to help motivate us and be accountable.*

*I 8: I also used the course with my class that I was teaching in the classroom. I hooked up the panel and projector and showed parts we could review as a class. There are multiple usages there. That work can be used by teachers in their classes. Teachers need to use more media in their classes.*

Five of the nine full participants shared information about how their technology learning increased. Three of their responses follow,

*I 1: It has encouraged me to bring more technology because as I develop more classes, one thing I have noticed when you take a traditional lesson plan and convert it, there are so many things you can do, but there are limitations as well. It reminds me of what I am asking students to do. I am not intimidated by technology anymore; I am encouraged by it.*

*I 4: Well, I have learned that technology is an awesomely powerful tool. I have learned that I could not do it full-time. I need a rapport with kids that is also face-to-face. I have learned that kids who are motivated to do well really do read directions-they do! They get it, and they like that. I have also learned that technology does not have to be scary.*

*I 8: I'm even more committed to finding ways to incorporate digital learning into everything that is done in the classroom...Education will look different as we go forward. As educators we have to be willing to change what we are doing to meet kids where they are at. I think that it is bigger than just the computer or the internet. When you pull digital and multi-media together you can motivate, encourage and capture interest of children.*

Five of the nine described a personal growth or change that they experienced as a result of going through the online program. Specifically, their responses mentioned changes in instructional style and interpersonal characteristics. Three responses in this category follow,

*I 1: I have learned that teaching without eyes is very powerful because you don't know where kids live, the color of their skin, their personal characteristics, their family-you can't make assumptions. All you know is that they are there ready to learn because they have logged in for the night. They are there because they want to be there. They participate-they have fun. It is so rewarding. It is the most rewarding thing I have done as an educator.*

*I 3: I guess I would say fun...rewarding...and um...it taught me patience.*

*I 7: It takes a disciplined teacher. It takes a person who is ok setting deadlines. That was a bit of a conflict for me because I am flexible in the classroom, and that was a real shift for me; a hard one to make, and then so a teacher has to be willing to say, 'this is when this is due.'*

Two full participants felt they gained a better understanding about the kinds of students who are likely to be successful in online programs. Both of their responses are posted here,

*I 6: I remember that the original intent as to reach kids with alternative learning styles-forget it. If you do not have self-discipline, online learning is not for you. In online if you go days without contact, it is easy to get behind.*

*I 7: I think it's going to shift toward...I think its shifting away from the goal which I think was kids making up credits. Because the kids who needed to make up credits, in general, have some problems meeting deadlines and being motivated. I think that those are the two things you need have to be successful in online courses. You need to be motivated to be successful. Those types of kids in my course who aren't motivated struggle. They are the kids who have the most problems. The kids who were most successful were the honors kids who were trying to get ahead and take five classes. I see that as being the avenue more in the future. It's really true. I think those character traits of self-discipline and motivation...to really work...if they don't have those they fall behind. There are exceptions to that...I had a student who had medical problems and he did just fine in the class, but it was because he was a motivated kid in the first place. I think it's switching toward that type of honors class. Kids getting ahead because they want to graduate early. That type of student. I also see the home school kid. I have had a couple be fairly successful. I see it being a service to them because something like chemistry is not something one can do at home very easily. I think those kids will have a niche.*

One participant described a greater appreciation for elements in the traditional classroom, such as the importance of nonverbal communication. He said,

*I 7: I have learned to appreciate the basic interactions with the kids and how important nonverbal communication is because you don't have that in an online course.*

#### *Partial Participants*

Responses from the partial participants showed a similar pattern as those of full participants. Five of the 12 partial participants identified technology learning as an outcome of their work with the program. Three of their responses follow.

*I 10: Personally, I am much more creative and smarter-for lack of a better word-on the computer than I thought I was. I learned a lot about myself and my technology skills. I forced myself to go beyond.*

*I 11: Obviously I am more adept at technology. I also know more resources that are available on the web. I still think you can teach on the beach.*

*I 16: Personally, I was intrigued with the online technology. There's a whole perspective of it I don't even begin to understand. I think I do a lot of inclusion work at the high school, and we do worksheets for teachers, and there is the whole ability to make worksheets that are on the computer and you can e-mail them to the teacher. I think that I don't use that. I could be using that with my students and getting them to use the computer in a whole way that bring them more success through technology.*

Two participants referred to learning new instructional techniques, such as greater analysis of the curriculum. Here is an excerpt of a response,

*I 20: Well, the best thing I learned was that you do have to be in one respect very linear and highly organized and you have to be acting to be crystal clear on objectives. I like that it clarified for me a lot of what I felt were essential...I had to clarify what I thought were essential learning in the class. That was very useful to me as a teacher.*

Five people referred to some type of instructional or interpersonal growth. Multiple factors of growth were identified that did not fit into previous categories. Those that did not have clear ties to any earlier categories were placed in this category. Two of those types of responses are included below,

*I 13: I think I have learned some of the frustration kids encounter.*

*I 14: I would say that there have been three times in my life I haven't followed through something. One of them was 8th grade basketball-I got fouled out, and I said, "Mom can I quit?", and she said, "Yeah." Another time was 8th grade diving, the coach said do a reverse dive and I said no. So this time it was a pseudo commitment that I would take this training...it was kind of an expectation that I would teach this class, but I felt like I have taken some things that I can apply to my class-right now. My website has all of my worksheets in print to PDF and links and to whatever...I felt I was miles ahead of other teachers when it came to website.*

Like the full participants, numerous partial participants indicated having a better idea of the students for whom online learning would reach. Two exemplary responses follow,

*I 12: That it is a valid alternative for many students for just a variety of reasons. I think it is something that is going to be.*

*I 13: It has been real helpful and we have changed our "tune" mentally to what our initial focus might have been-remediation. Now it is something different from that which is ok. I don't think that the average student who isn't successful in the traditional classroom is not going to be motivated in online course either unless there were somebody with them saying "Here you are you are going to do this" and then, coming up with other students due to illness or other issues who have benefited from having online course available. I think it does meet the needs of some of our students. I think we have looked at a broader range of student. We have also talked a lot through how we are going to record these-what will they look like on record keeping. That has been helpful as well to have at least some knowledge of how it works to be able to work with students that way.*

*Interview Question: Has your experience with online instruction influenced how you teach and think about instruction in your traditionally taught courses?*

#### *Full Participants*

All full participants identified some type of influence that the online course development and delivery program had on instruction in their traditional classrooms.

Examples included: using more technology in the classroom, having more resources available to students as a result of their online course development, using more of online materials to help students make-up work when they had missed a class; and changing instructional design. Two of the four full participants who identified greater use of technology shared,

*I 4: ...I started doing that via the web page. I don't understand why every teacher would not want to learn how to do this-it is such a powerful communication tool. In that sense, it changed the way I communicate with students and parents.*

*I 6: I take the online class into my room, and we use the material to teach kids. We no longer use the slides, I can show them pictures from the course.*

Four people also indicated a greater use of new instructional resources in their classroom. Three of those responses are included here,

*I 5: The other thing as far as it has impacted my traditional instruction is the plethora of electronic resources that are out there. Some of them are free and can supplement the traditional class.*

*I 7: I have learned to use the Web as much more of a resource. I have developed stuff that my regular onsite kids can use from home. Things that would be handy for them to have access to at midnight before a test. Here are some things they can get at without having to ask Mr. Is not here what do I do. I found that to be a valuable resource.*

*I 9: It has been great...I think anytime you have to sit down and look at what you want to accomplish in an area has been really good. Also, being able to do a lot of research on the web and bring new resources to my class was really beneficial.*

Illustrative quotes from two of the four participants who saw online instruction as a means of helping students complete work when they missed classroom lessons follow,

*I 4: You know what else I have done-when a student is absent for a long period of time, I will ask them to do the online version rather than making up the work they did in class. That works really well.*

*I 9: I have some kids who are leaving for some reasons or have been out. I can now say that they can do the unit online. They can do it and get credit for it. It is a nice way to facilitate that. In the old days you could not make the work up. That is an awesome resource.*

Three participants identified changes instructional design. Two of their responses are presented below,

*I 5: I think it has affected my desire to be organized in the class. An online class has to be incredibly organized for students to get through it. It has enhanced my desire for organization in my traditional classes. I also think I think more about instructional design. I think more about objectives and what we are doing to meet the instructional objectives of the course. I tie objective and tasks and assignments together better than I did before.*

*I 8: Absolutely. I do not teach the way I used to. Having taken a course and broken it down into all of its components gives you a much bigger scope of what to do with every student. That is not something we do normally when we create curriculum. It makes you get real precise about what you are teaching and who you are teaching.*

#### *Partial Participants*

Participants who did not complete the program also shared about the online program effects on their traditional classroom instruction. Of the ten people who identified changes, the following types of changes emerged: more use of technology in the classroom, more instructional materials available to students, and more awareness of options and experiences that would be available to their present students. Responses from three of the five partial participants who make greater use of instructional technology in the classroom are offered here,

*I 10: I yeah...I use technology a lot more. The sites I found over the summer are great resources.*

*I 14: I have integrated a couple web pages into my current course. I would like to develop more pages in time. I think it offers students more of an opportunity to learn.*

*I 16: I think now about how can I use technology to do this. Could technology be used to do this easier? I am more apt to just have students do something with technology. Also, to think about when I work with teacher to try and get them to fit technology into their work.*

Five partial participants also commented that they now have more curriculum available to their students. Two of their comments are,

*I 11: I bet it has influenced in terms of thinking about individual responses with students, and about looking for different resources. In a reading class you are tied to books. But once I saw what was out there-it reminded me of critical reading skills when you are looking at a resource. I think it has affected my teaching.*

*I 17: It has. I think that I was asking how I could get more access for more information to my students. I wanted them to get more materials.*

Similarly, three participants identified greater knowledge of learning options available to their students. Three partial participants mentioned having knowledge of a new program that might benefit some of their students. Two of the three responses are included below,

*I 13: It kind of expands your mind as far as you think of education was like when I went to school and how that has changed now in what you see in the classroom and what other opportunities there are out there. And I do think it is still a support for some students. I don't think it is perfect for all students. You continue to figure out what will be an option that will open up...maybe we could put it in foreign languages and use computers to translate on the computer so they could learn in their own language.*

*I 20: Yes-because my role in the District is more involved in counseling students. That is an option that we look at. We consider the online academy. If there is something you want to do, I see my role as trying to facilitate what they want to do. Sometimes it means getting out of their way. Sometimes it means telling them what hoops they have to jump through, and helping them to figure out how to do that.*

### Participant Reflections

To close the interview, the researcher invited participants to share reflections on how they view the future of online programs in the school district as well as programs

that might be run on a state or national level. They were also invited to share any additional views about their participation and were specifically asked to share words that captured their online course development and delivery experiences.

*Interview Question: What do you envision the future of online instruction to be in the school district?*

As far as the future of the online program 15 of the 21 study participants indicated that they saw the program continuing as long as there was funding available. Six exemplary responses follow,

*I 3: I don't know enough about how education finance works in Minnesota-but I hope it continues to grow. Just so it gets more credibility. It would be nice to have the best program out here, so you can grow and attract students. Sometimes it is best to be first out of the shoot.*

*I 6: If we don't get funding, it will fall on its face. Funding for it means that we have to find a way from the state to let people in home schools direct money to the district.*

*I 9: The challenge I think is this idea of additional funding. I had a lot of kids taking it because of their schedules. They want flexibility in their schedules.*

*I 11: Pretty similar. Um...especially in out-state areas where they might not have financial resources or teachers with licensure. It opens it up I think. Universities are moving online, and even the stuff we do to learn technology is an online tutorial. I see it growing.*

*I 13: You know...my guess is that we will probably continue to grow. I don't know. I think it will become more competitive, especially for students and resources. I don't know if everyone will be able to survive in it. It will sort of be like the airlines-big conglomerations. You would combine with someone who could provide something you don't offer. I mean...it's just interesting. I can see it growing. I know some schools are looking at Post Secondary Options online as well. I don't know of a student who has done that, but maybe we need to offer college credit online for our students as well.*

*I 20: Well, I think it has a very high overhead for the numbers of students. Particularly in a time when we are facing declining resources.*

*It doesn't appear to me that it is going to be a great number of students who are involved in online learning or it is going to be a revenue stream. It doesn't look like that to me. We need more infrastructure to support it. I think that any innovation you take away learnings that are a chance to apply to other situations. That would be the benefit of having that innovation for at least a while--some new learning will get transferred to other situations.*

The quotes above also suggest that beyond maintenance participants envision the program expanding. In all, sixteen participants referred to the program expanding. Four samples of those responses are included here,

*I 5: I don't see it going away. I think at the collegiate level we have seen a massive growth of online opportunities for adults to receive education. I think that that will affect k-12, not to the same degree. K-12 individuals are not necessarily challenged with jobs and school, but I am pretty confident that to some degree, online education is going to be a component of what we know as k-12 education, and it will be changing all the time because the tools will become more sophisticated. It will become closer to the traditional experience students will have without the walls.*

*I 9: I think all you have to do is look at the colleges, particularly the community colleges. In the last few years they have increased over 25% in online courses. They are placing a huge emphasis on this. I think the online environments are going to be huge. We need to be training kids how to access this new environment.*

*I 17: I see it continuing to grow. I think e-learning and distance learning opportunities are increasing at the high school level. We are seeing more online programs and virtual high schools. I guess the question will be about accreditation of these programs and will they gain status.*

*I 20: I think it is going to be a big avenue for learning. And, I don't see it so much as the state and nation as I see it in terms of for-profit corporations setting it up, and maybe probably in universities and colleges. It will be a segment of the learning market--maybe a quarter--maybe it will grow.*

Three of the individuals who saw the program continuing clarified that they did not see unlimited growth. Two examples of these types of responses are listed below,

*I 6: It will not replace the classroom. It is not the same. It is a little less personal than the traditional classroom experience. There is something to seeing a look from a student and being able to do something about it.*

*I 7: I don't see it becoming the rage. Just because the clientele is specialized, does not mean that it's something that will appeal to everybody. Part of the joy of high school is the socializing. It is the contact, dating, prom--you know that's part of it. I don't see us turning into an all-online school because the population won't support it. Again, specializing for some kids. I see it as an additional option. I think the clientele will be small.*

*Interview Question: What word or words would you choose to capture your overall reflections on your online course experience?*

#### *Full Participants*

Full participants used seven words that the researcher categorized having positive connotations. Seven specific words were as follows: addictive, rewarding, exciting, enlightening, evolutionary, successful and fun. Fun, enlightening, and rewarding were each mentioned by two participants. Only two words that had negative connotations were provided. These were: exhausting and frustrating. Each of these words was mentioned one time by separate participants.

#### *Partial Participants*

The partial participants collectively offered six words with positive connotations and 10 words with negative connotations. Words with positive connotations included: fascinating, experiential, success, enlightening, rewarding, and enriching. Exciting was mentioned by four participants. Fascinating, experiential, and enriching were each mentioned by two participants. Words with negative connotations included exhausting, frustrating, puzzling, confusing, disjointed, disappointed, truncated, difficult, time-consuming, and shame. Frustrating was the only word that was mentioned by multiple participants, with four of the 12 participants choosing it as capturing the experience.