

GRADUATES OF THE NEW LEARNING ENVIRONMENT A Follow-Up Study of High School Distance e-Learners

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While web-based courses have had a growing presence in Canadian secondary schools since the mid-1990s, there has been very little study of the transition of high school distance e-learners to further study at the postsecondary level. To address this area of deficit in distance education research this article reports on a study designed to examine high school distance e-learners' participation in postsecondary education as well as their perceptions of online learning following high school graduation. A short follow-up survey as well as in-depth interviews of students from the class of 2008, which included students who participated in distance e-learning courses in high school and others who did not, suggested that high school distance e-learners had a preference for university studies. While high school distance e-learners did not appear to be more likely to participate in online learning at the postsecondary level, they described a number of ways in which their distance e-learning experiences in high school had helped them to prepare for postsecondary studies. Some of the implications for online learning at the secondary school level are discussed.

INTRODUCTION

Because of the relative ubiquity of computer and Internet access and the rapid development of online technologies, teaching and learning at a distance through online means continues to grow at an accelerating pace (Canadian Council on Learning, 2009). Over a relatively short period of time, online technologies have

become an important means of enhancing access to education. This is an especially important development for rural and remote communities where schools are often challenged to offer a full range of course options because of difficulty recruiting teachers with sufficient expertise or because of low student enrolment in certain course areas (e.g., advanced and specialized courses) (Barbour,

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2007; Provasnik et al., 2007). Until recently, rural and remote schools were faced with two alternatives: (a) have teachers teach in fields where they had no training or (b) not offer courses in some subject areas. In many Canadian jurisdictions, the affordability and accessibility of computer and Internet technology and the emergence of online distance education have helped schools to avoid this problem.

Web-based courses have maintained a growing presence in Canada's high schools since the mid-1990s (Barbour & Stewart, 2008). Eight of Canada's 10 provinces have some form of province-wide online distance education program for students enrolled in the grade school system (i.e., kindergarten to Grade 12). Students at over one third of the secondary schools across Canada participated in online courses during the 2003-04 school year (Canadian Council on Learning, 2009). In the province of Newfoundland and Labrador, the numbers of students taking online distance education courses in (mainly rural) senior high schools rose from 200 in the 2001-02 school year to approximately 900 students in 2007-08 (Barbour & Stewart, 2008).

CHARACTERISTICS OF HIGH SCHOOL DISTANCE E-LEARNERS

Until recently, the vast majority of research studies in the area of online learning have focused on the experiences of distance e-learners in postsecondary education. Compared to secondary school students, students in college and university programs tend to be older, more self-directed, and more autonomous learners (Barbour & Reeves, 2009; Kennedy, 2000). Studies of distance e-learning have also tended to focus more on student learning outcomes, retention, and attitudes as well as the technical problems they encounter. With some variation, these studies have found that online learners often attain results that are comparable to those enrolled in traditional courses (Hannum, Irvin, Banks, & Farmer, 2009; Kanuka, 2006). They often withdraw from online courses before

completing them and report varied levels of satisfaction (Bernard et al., 2004; Nora & Snyder, 2008).

A number of studies have questioned why it appears that students enrolled in distance education courses in high schools are not broadly representative of the overall student population. Following his extensive review of distance e-learning in Newfoundland and Labrador, Crocker (2007) suggested that secondary school students' choices to participate in distance courses could be influenced by a "selection factor, in which higher ability students self-select or are selected by the school as the best candidates to take distance courses" (p. 73). Likewise, in a report on a recent study of distance education in rural high schools in the United States, Hannum, Irvin, Banks, and Farmer (2009) questioned whether a "selection bias ... may be operating in distance education in rural high schools" and if "students selected to participate in distance education courses are the better students" (p. 12). The available research on the characteristics of high school distance e-learners would appear to confirm the latter assertion. This body of research suggests that high school students who participate in online courses are often very academically capable, highly motivated, self-disciplined and independent (Barbour & Reeves, 2009). Researchers have also found high school distance e-learners to be both highly literate and technologically adept.

High School Distance e-Learners and Postsecondary Education

A number of U.S.-based researchers have found that high school students who complete all or some of their schooling in virtual environments are more likely to be planning to attend university following graduation (Barbour & Reeves, 2009). As has been noted, very few studies have followed up with students after they leave secondary school and transition to postsecondary studies. One recent study by Dodd, Kirby, Seifert, and Sharpe (2009) found that university students who had com-

pleted online courses in high school performed better academically and were more likely to persist in university after the first year. Based on the limited research available, it would seem reasonable to hypothesize that students who complete online courses in high school attend postsecondary education, especially university-level education, in greater numbers as compared to those students who do not engage in virtual schooling.

STUDENT PERCEPTIONS OF DISTANCE E-LEARNING

A limited number of studies have investigated student perception of online courses. And, as with the broader e-learning research literature, very few of these studies have been conducted with high school distance e-learners (Barbour, McLaren, & Zhang, 2008). In addition, as Barbour and Reeves (2009) have aptly noted, researchers have most often reported on the advantages of online learning from the perspective of those involved in its development and delivery. Studies of student perceptions of online learning have revealed a number of perceived advantages and disadvantages. The advantages include access to better learning resources, saving time, more convenient scheduling, greater choice of courses, more flexible pace of learning, increased self-reliance, and improved computer literacy (O'Malley & McCraw, 1999; Ward & Newlands, 1998). The perceived disadvantages of online courses that have been identified by research include feelings of isolation, technical problems, less contact with fellow students and institutional staff, low motivation, and problems in communicating and being able to contribute to class discussions (Grimes, 2002; Lofstrom & Nevgi, 2007; Ward & Newlands, 1998; Wilkes, Simon, & Brooks, 2006). Students have indicated in a number of studies that they spent significantly more time working on online course work compared to traditional face-to-face courses (Dobbs, Waid, & del Carmen, 2009; Ewing-Taylor, 1999).

Past examinations of postsecondary student satisfaction with online learning have yielded mixed results. A number of analyses have found few differences in student feedback on online versus traditional learning experiences (Maki, Maki, Patterson, & Whittaker, 2000; Tolmie & Boyle, 2000). In other studies, students have reported high levels of satisfaction with online courses (Leonard & Guha, 2001; Wyatt, 2005). Students in Singh's (2006) study of the effectiveness of online learning rated the quality of their online learning as comparable to their experiences in face-to-face classes. In other instances, students have given significantly higher ratings to face-to-face course offerings in comparison to online courses (Navarro & Shoemaker, 2000; Mentzer, Cryan, & Teclehaimanot, 2007). In his survey of high school distance e-learners in eastern Canada, Barbour (2006) found that most students were more satisfied with their online classes than they were with their classroom-based courses.

Willingness to repeat the online learning experience is perhaps one of the best ways to ascertain one's perceptions of this form of learning. A number of analyses have found that students who had a positive view of their online experience would also be willing to enrol in additional online courses in the future (Dobbs et al., 2009; Grimes, 2002; Lesh, Guffey, & Rampp, 2000; Stewart, Waight, Norwood, & Ezell, 2004).

PURPOSE OF THE STUDY

While many research studies have investigated distance e-learning, with a growing number reporting on investigations of the delivery of distance e-learning courses in secondary schools, very little research has sought to examine the transitions of high school distance e-learners to postsecondary education. To address this gap in distance education research, this exploratory qualitative study was carried out to follow-up with high school distance e-learners about one year after their

graduation. The objectives of the study were threefold. First, we were interested in examining how high school distance e-learners compared to other students with regard to their participation in postsecondary education in the year following graduation from high school. Second, we reviewed student participation in and experience with online courses at the postsecondary level. Third, we sought to investigate high school distance e-learners' perceptions of on-line learning following graduation and to compare these perceptions to those of their cohorts who did not participate in high school distance e-learning courses.

METHODOLOGY

This study was conducted in two phases between April and May of 2009. For the initial phase, the researchers carried out a short telephone survey of graduates who had taken online courses in high school as well as graduates who had not taken these courses. During the second phase of the study, in-depth interviews were conducted with a smaller sample of the students who responded to the initial telephone survey. Using the combined survey and interview data, we compared those who completed high school entirely in a face-to-face setting with those who completed online courses in terms of their participation in postsecondary education following graduation and their perceptions of online learning.

Phase One: Short Survey

Study Participants

A total of 225 students comprised the sample for the purposes of the initial follow-up survey. These students were high school graduates of the class of 2008 who had attended one of 35 rural schools in the eastern Canadian province of Newfoundland and Labrador. Each of these students had participated in an online survey conducted by the researchers one year earlier (i.e., during the spring of

2008). Of the 225 students in the sample, 142 individuals were successfully contacted and surveyed for a response rate of about 63% (note: 41 declined to participate and 42 could not be contacted). Among these individuals, 87 had completed one or more distance e-learning courses in high school and 55 had completed their high school program entirely in a traditional, face-to-face instructional setting.

Data Collection

The survey respondents were contacted by telephone and asked to respond to a number of questions regarding their activities since completing high school the previous year. The total contact time for these interviews was generally less than 10 minutes. Participants were asked if they had enrolled in a program at the postsecondary level since completing high school the previous year. If they indicated that they had undertaken a postsecondary program, the interviewees were asked to provide details about the type of program that they had registered for (i.e., apprenticeship, community college, or university). At the end of this survey, respondents were asked to indicate whether they would be willing to participate in a more in-depth interview.

Data Analysis

The rudimentary descriptive statistics produced from the survey data were generated using the Statistical Package for the Social Sciences (SPSS) version 15.0 for Windows XP.

Phase Two: In-Depth Interviews

Study participants

A total of 43 interview participants were randomly selected from the larger sample of 142 graduates of the class of 2008 who participated in the short survey described above. Twenty-three of these interviewees had participated in one or more distance e-learning courses while in high school while the remain-

ing 20 had not. While the sample was randomly selected, the intention of the interview portion of this study was not to produce results that would be statistically generalizable to the overall population. Rather, the sample of individuals interviewed was purposefully selected in an effort to produce a rich and detailed account of their insights and perspectives regarding the transition from high school distance e-learning a year after leaving high school and also to differentiate between these perspectives with respect to their earlier participation (or nonparticipation) in high school distance e-learning courses.

Data Collection

The data collection method used in this phase of the study consisted of semistructured interviews of 25 to 30 minutes in length. The interviews were conducted over the telephone, audio recorded using a digital recorder, and subsequently transcribed. Two telephone interviewers, who were graduate students, initially pilot-tested the interview script and questions with a small number of participants. This helped to address issues of clarity and process early on in the interviewing phase. The interviewers were supervised by a research coordinator who was available to troubleshoot any problems that arose in the conducting of the interviews. These measures helped to ensure consistency among the data collected.

The interview booklet designed to guide the interview questioning contained a combination of closed-ended and open-ended questions. There were two different versions of the interview booklet—one for participants who had completed high school distance e-learning courses (20 items) and one for those who did not (15 items). The interview questions were organized under two broad categories. The first category of questioning involved participants' educational experiences since leaving high school. This included questions about whether they had attended any college or university courses or programs and, if so, whether they participated in any online courses at the

postsecondary level. All of the interviewees were also asked about their preferences for courses delivered in online or face-to-face formats. A second category of interview questions were posed only to those students who completed high school distance e-learning courses and also participated in postsecondary education since leaving high school. These individuals were asked if they felt that their experience completing distance e-learning courses in high school had prepared them for postsecondary education in any ways. They were also asked to explain if there were particular skills that they felt they had developed as a result of taking online courses in high school which had in turn helped them with their college or university studies.

Data Analysis

The recordings of the interviews were professionally transcribed by an individual with extensive experience in the area of educational research. A sample of the transcriptions was subsequently inspected for accuracy by the research coordinator. Next, the transcriptions were analysed and coded by the interviewers and the research coordinator. These coded data were used to identify the salient themes of participants' interview responses. Overarching themes were initially identified by the two interviewers and the research coordinator after independent analysis of the transcribed data. The final collection of themes identified in the interview data were subsequently jointly agreed upon by all three coders.

RESULTS

While the survey employed for this study was short and required participants to provide only a few details about their participation or nonparticipation in postsecondary education in the year since completing high school, the data collection process for the interview phase was far more comprehensive. In fact, the 43 individual interviews yielded over 250 pages of

detailed transcripts. The scope of this article does not allow for a discussion of all of the findings of the data analyses. Instead, this article focuses on aspects of students' transition to postsecondary education, participation in online courses at the postsecondary level, and their perceptions of online learning and their experiences with the online learning environment. This includes summaries of student responses to interview questions as well as selected excerpts from individual interviews.

Postsecondary Transition Patterns

Table 1 provides a breakdown of the postsecondary participation of the initial survey respondents. The postsecondary participation levels were similar (i.e., above 70%) for those who completed distance e-learning courses in high school and those who did not. However, the high school distance e-learners were more likely to pursue university-level studies while their counterparts who did not complete distance e-learning course in high school enrolled in greater numbers in nonuniversity postsecondary institutions (i.e., community colleges, private proprietary institutions, etc.).

Most of the students who were interviewed (36) had enrolled in some form of postsecondary education since graduating from high school the previous year. These enrollments were divided almost evenly between university (19) and nonuniversity (17) enrolments. (In this article the term nonuniversity refers to enrollments in postsecondary programs at Newfoundland and Labrador's public college,

College of the North Atlantic, the Fisheries and Marine Institute of Memorial University of Newfoundland, and private training institutions.) A slightly larger proportion of the interview participants who did not take distance e-learning courses in high school (18 of 20) had participated in a college or university program compared to those in the high school distance e-learner group (18 of 23). Most of those who did not complete high school distance e-learning courses chose to enrol in nonuniversity programs (11 of 18). This was reversed for students who had high school distance e-learning experience. These individuals went on to participate in university-level studies in greater numbers (12 of 18).

The reasons students gave for choosing a particular college or university program were comparable across both groups. Most of the students stated that personal interest was their main reason for choosing a specific postsecondary program. Very often, students indicated that a program was of interest to them because they "always had" an interest in the subject matter and engaging in further study in their chosen area was something they "always wanted to do." Some of the students indicated that their choice of program was closely related to the institution they had chosen to attend. See the quote below for example:

I actually just wanted to go to that school, and I decided I wanted to go into nursing. I wanted to go to that school since I was little.

In other instances, despite probing by the interviewer, some respondents did not or could not

TABLE 1
Postsecondary Participation of Survey Respondents

	<i>No Postsecondary</i>	<i>University</i>	<i>Nonuniversity</i>	<i>Total</i>
Distance e-learning in high school	24 (27.6%)	41 (47.1%)	22 (25.3%)	87
No distance e-learning in high school	16 (29.1%)	15 (27.3%)	24 (43.6%)	55
Total	40 (28.2%)	56 (39.4%)	46 (32.4%)	142

provide any additional clarity for their decision, such as in the case of the student quoted below:

Well, I really didn't know any other options, like any school I would want to go to. Like it's just something that I wanted to do. All my life I wanted to go there.

Most frequently, the responses students provided included multiple and layered rationales for their postsecondary education choices. These included employment considerations, academic considerations (e.g., grades), proximity to or influence of friends and family, program structure (e.g., length, availability of work terms), and financial factors. Two examples of this multilayered response type are provided below. In the first instance, the student indicated that her choice was based on the institution's proximity, cost, and her personal interest:

Okay, basically, I'm about an hour from St. John's, and so it was the closest university. I've always researched [Memorial University of Newfoundland] a lot, and wanted to go there. The tuition rates were great, so I figured I'd give it a try for a year ... try to figure out what I really wanted to do. At the time I was planning to do a degree in psychology, clinical, and go on to do clinical psychology and, yeah, they had a psych program so ... and it was close to home.

In this second example, personal interest and perceived job opportunities formed the basis for the student's decision:

I always liked science and math in high school, and I wanted a job that I knew when I graduated that I'd have a job when I got out because I was thinking about doing a science degree, but I really didn't know what to work in, so I thought engineering was a good combination of math and science.

Perceptions of Online Learning

Only 7 of the 36 students who enrolled in a postsecondary program had participated in online learning at the postsecondary level. Among this group, 4 were university students and 3 were college students. A total of 5 of the 18 students who had completed distance e-learning courses in high school also completed one or more online courses in their postsecondary program. In comparison, 2 of the 18 students from the participant group that did not complete high school distance e-learning courses reported that they completed one or more postsecondary courses online. As is shown in Table 2, half of the college and university students said they had the option of completing online courses in their program. The remaining 18 students indicated that either their program did not include an online course option (12) or that they were unsure if such an option was actually available to them.

Regardless of whether or not they had participated in distance e-learning in high school, students gave similar reasons for taking these online courses at college or university. These reasons were associated with convenience, scheduling, and course availability. Of the

TABLE 2
Online Course Availability

		<i>Online Course Option</i>	<i>No Online Course Option</i>	<i>Unsure</i>
Distance e-learning in high school	University	9	2	1
	College	2	4	—
No distance e-learning in high school	University	3	—	4
	College	4	6	1
Total		18	12	6

seven students, two noted that they did not have the option of completing their online course(s) face-to-face as they were only offered online. For example, one student stated the following: “We didn’t have a choice in that. That’s just the way the teacher taught us.” The other student pointed out that her course “was only online. They didn’t have sociology face-to-face.” The remaining five students indicated that completing their course(s) online was a matter of convenience.

Preferred Learning Environments

The study participants were asked to indicate whether they preferred learning that is provided online or face-to-face. Two students said they preferred learning online and two others said they had no preference. All four of these students had completed online courses in high school. The remaining students, including all of those who did not complete on-line courses in high school, indicated that they preferred learning in a face-to-face environment. Two students, one with high school distance e-learning experience and 1 without, disliked the notion of online learning because of anticipated technical difficulties. Many students, some who had previous online course experience, felt that learning online would be more difficult and hinder their understanding of course material and instruction. In the data analysis process, the main reasons students gave as to why they preferred to learn in face-to-face environments as opposed to online were organized into five broad themes: assistance with learning, communication, ease of learning, personal interaction, and structured learning environment. These themes were frequently interwoven with each other in the observations made by study participants. For example, the two students below, both of whom completed distance e-learning courses in high school, felt that classroom learning was easier to negotiate because of direct face-to-face communication and personal interaction with their teacher.

I found that online courses ... they seem to be a bit easier, but it’s a bit harder to really understand your prof sometimes, and I just found face-to-face you could really understand things a lot better.

I did biology online in my Grade 12 year, and I just didn’t find that it was nearly as helpful as doing it in a classroom, and my average dropped a lot because of that course because it was so difficult for ...I never even met my teacher so I didn’t know exactly what he wanted. It was hard to communicate.

Like a number of the other study participants, the student quoted below, who also completed online courses in high school, felt that online distance learning required too much individual discipline, causing her to be more susceptible to distraction.

Because distance is ... it’s harder to like learn, and I found it’s harder to pay attention and stuff just because there’s not a person there. It’s just like a voice coming through ... well, I don’t know about distance courses through university, so I’m just basing it on like high school. But it was like coming through a computer, so it was a lot harder to pay attention, and you had to learn a lot more like on your own.

The preference for a face-to-face learning environment and concerns about online learning were also expressed by three students who had taken part in online courses at both the high school and postsecondary levels. Two of these students made the following points:

It’s better for like teaching purposes. Like you kind of understand more, and it’s explained ... as opposed to just trying to learn it on your own.

It’s more easy to understand the information when someone is talking to you instead of looking at a computer screen. And I’m more of an audio learner.

Of the 36 students who enrolled in a post-secondary program, only two indicated that

they preferred online learning at the postsecondary level. Both of these students were female university students and both completed online courses in high school. One of the students said that she enrolled in online courses because her commute to university would take her more than 2 hours. The other student, who lived near campus, explained her choice in the following way:

It's really a lot more independent, and there's ... like there are deadlines for when you have your work and stuff done, but it is a little bit more flexible because professors are a little bit more understanding about it because I think they have that mentality that if you're doing some courses online it's probably because you have other things going on too, and you wanted that independence of being able to do your course work whenever you got the time like, whether that was early morning or late at night ... you know, whenever you were home and ready to do it. I was always on campus all the time and I just kind of wanted a break from the whole classroom setting, so it was a little bit more independent, and I have a lot of hobbies I do outside classes so it kind of freed up time. Instead of you having to be in classroom at a certain time, then I could get my work done whenever I wanted.

Reflections on High School Distance e-Learning Experience

Students who completed online courses in high school were asked if their participation in these courses prepared them for postsecondary education in any ways. Twelve of the 18 students indicated that completing high school courses online had helped them to develop skills in a number of important areas. Many of them noted that online courses required them to exercise a greater level of independence, self-discipline, and responsibility—all skills they recognized as being valuable for their ability to learn in the postsecondary setting.

It just makes you a more independent learner like because things are not really at your fin-

gertips and you don't have a teacher that you see every day, it's really up to the individual to go and to work the extra bit of effort so that you can get your notes, and that you can study and you understand the materials because there's not really anyone there to actually help you if you need it. I just have to say like it gave me more initiative to go and do things on my own. Like it makes you more responsible person to go and to have everything done, and just stuff like that. I think it's just like really made me strive harder, and like to know that it's always up me to work my hardest so that I can achieve as much as I can. Like there's no one ever going to do the work for you, or nothing is ever handed to you so you just got to go and get everything on your own and do with what you got.

Like I said before, independence ... you have to have a lot of self-discipline. You have to learn how to be independent with your courses because the professors are not always there. Your teachers are not always reachable, so you have to learn how to read your book, to read between the books, to figure out all the stuff on your own, and to have that self-discipline to do the work. Even if it's not required, you have to do the work.

This group of students generally noted that independence and self-discipline was nurtured during their high school online learning experiences. Some of them believed that they were more prepared for postsecondary level studies because their experiences had also helped them to become more organized and to develop effective time management skills and study habits. Two of the students expressed this sentiment as follows:

It's a little bit more independent than ... well, college, of course, is more independent than high school so those CDLI [Centre for Distance Learning and Innovation, the branch of the Newfoundland and Labrador Department of Education responsible for delivering online secondary school courses] courses kind of trained me. Well, the fact that I became more independent ... better study habits, really, and I done a little bit more ... going home and studying pretty much every

night, and the usual studying right before the test.

Yeah, because it was a lot more independent ... you had to learn a lot more stuff on your own and do a lot more work by yourself, and didn't have a teacher there with you, so it did prepare you better for university. I'm in particular, but just like you had to be more organized, and you had to stay on top of your work more ... you couldn't fall behind or else it would be really hard, so it's a lot like university in that way, that you can't like ... once you get behind, it's really hard to catch up again.

Two students suggested that their high school distance e-learning experiences had helped them by preparing them to become better communicators. While these students had previously felt uncomfortable expressing themselves in front of peers and teachers, their experiences using synchronous voice over the Internet technology tools to communicate with online classmates and teachers enabled them to further develop their communication skills.

Well, it kind of brought out ... I used to be a little shy, but since taking online courses, I learned to not be so shy and to express my opinions, and so that kind of helped me in my program.

I feel that I learned a lot about conversational skills. I'm able to speak out in class more. I was usually a shy person; but taking those courses, I had to talk or I would fail that portion of the course, so I had to develop some form of conversational skills.

DISCUSSION

The rapid growth in online learning has brought with it many questions about the comparability of this learning environment with the traditional face-to-face approach. In public school systems, the expansion of distance e-learning is inevitably accompanied by questions and concerns about equity of outcomes for students who, in some instances such as in

rural or remote schools, have no other option but to complete courses needed for graduation or entry to a postsecondary program online. This is especially true in Newfoundland and Labrador where online learning in high schools has increased almost fivefold over a 6-year period and appears set to expand further. For this study, we followed up with a group of high school students from rural Newfoundland and Labrador communities in the year following graduation to compare the postgraduation outcomes of students who completed distance e-learning courses in high school with the outcomes of students who did not participate in high school distance e-learning courses. Using survey and interview methods, we investigated the participation of these students in postsecondary programs since leaving high school. Through in-depth interviews, we inquired about postsecondary students' participation in and perspectives of online learning and sought to understand how they viewed the strengths and limitations of on-line courses for them as learners.

With regard to participation in postsecondary studies after graduation, the cohort of high school online learners interviewed did not appear to be disadvantaged in comparison to the students who did not participate in online learning in high school. Over 70% of the students in each group had enrolled in some form of postsecondary education since high school graduation. This level of participation is notable since analyses of youth transition in Canada indicate that about 75% of youth take part in some form of postsecondary education within the first 2 to 4 years of completing secondary school (Malatest & Associates, 2007; Shaienks, Eisl-Culkin, & Bussière, 2006). While both groups of students had comparably high levels of postsecondary participation in general, students who completed distance e-learning courses in high school enrolled in university studies in greater numbers than students who did not complete such courses in high school. This would suggest that both groups of high school graduates were on a relatively even footing with regard to postsecond-

ary participation and, as has been observed in other studies (Barbour & Reeves, 2009), the high school distance e-learners who participated in this research showed a preference for university over nonuniversity studies. This result is consistent with the findings of other researchers who concluded that more academically capable students choose, or are chosen for, distance-delivered high school courses (Crocker, 2007; Hannum et al., 2009).

As was noted in the introduction, one way to evaluate how students feel about online learning is to observe whether they continue to participate in it. Positive experiences with this form of learning have been shown to influence students' enrollment in additional online courses afterward (Dobbs et al., 2009; Grimes, 2002; Lesh, Guffey, & Rampp, 2000; Stewart et al., 2004). In this study, only a small number of students, 7 of 38, had participated in online courses in their postsecondary program, with 5 of these students having completed high school online courses. It should be noted that some students did not have the option of completing courses online or were not aware if they did. Of course, a more direct approach to understanding students' preferences is to ask them directly as we did in this research. Only a small number of the students interviewed said they preferred online courses (2) or had no preference for face-to-face or online courses (2). All of these students participated in on-line courses in high school. But, while the findings show that more students with high school online learning experience participated in postsecondary online courses and more of them expressed an affinity for on-line learning, because the number of participants in this study was relatively small, it is not possible to generalize these findings further.

Most of the students in both of the groups interviewed indicated that they preferred instruction that took place in a face-to-face environment. This was due to perceived deficiencies of online learning which were consistent with the findings of earlier examinations in this area (Lofstrom & Nevgi, 2007; Wilkes et al., 2006). This earlier research along with

the findings of the current study confirm that students often feel challenged to exercise the level of self-discipline and independence that is frequently needed to meet with success in a more autonomous online setting. However, it is interesting that most of the students who participated in online learning in high school believed that the necessity to exercise greater self-discipline and independence in these courses helped them to prepare for postsecondary education where their actions are more independently driven. It is also interesting that, while problems with virtual communications were perceived as a limitation of online learning, two of the participants in this study pointed out that their experiences in learning and communicating with others online actually helped them to become more confident as communicators. These findings, along with the students' suggestions that on-line learning in high school helped them to develop effective organizational and study skills, suggests that the advantages of high school online learning extend beyond expanded curriculum choices and the completion of required courses. Despite the majority of the students' stated preferences for face-to-face learning, it is significant that the experience with online learning in and of itself appears to help many of the students who participated in this study develop skills that facilitate their further learning. This suggests that policy makers and educators might need to seriously engage with students' perceptions and hesitations regarding online learning in order to foster a more positive view of this type of learning among secondary students.

Combined, these findings have important implications for the expansion of online learning, particularly at the secondary level. These results enable us to determine the impact and benefits of high school e-learning experiences on subsequent transition and potential for success in postsecondary education. Instead of finding that the transition of high school distance e-learners was more difficult or deficient in some way compared to that of others, we found that these students had comparable

levels of participation in postsecondary education and comparable levels of self-reported achievement. Moreover, in many cases, students felt that they developed important and highly useful skills as a result of their online learning experience. It also provided them with an opportunity to assess a particular mode of learning in terms of their preferred learning style and to explore options for managing their study time and schedules in a postsecondary setting. For parents, students, educators, and administrators who have reservations about the introduction and growth of online learning at the secondary school level, these findings should be both reassuring and encouraging. This type of research, which foregrounds the perceptions of students as opposed to the opinions and perceptions of others, can help us to better support distance e-learners and to identify at-risk learners to increase their chances of success.

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