



***Autonomy and Responsibility:
Online Learning as a Solution for At-Risk High School Students***

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Abstract

In this three-year, mixed methods case study, the benefits and challenges of online learning for at-risk high school students were examined. A key finding was that at-risk students identify the benefits and challenges of online learning to be the same. While students appreciate the opportunity to work ahead and study at their own pace, they see it as a challenge to be responsible for their own learning and manage their time. The authors of this paper argue that, with proper support structures in place, students who are at-risk for dropping out can overcome challenges and find success in an online learning environment.

Résumé

Dans cette étude de cas à méthodes mixtes, échelonnée sur une période de trois ans, les avantages et les défis de l'apprentissage en ligne pour des élèves à risque au secondaire ont été examinés. Une des principales conclusions était que les élèves à risque identifient que les avantages et les défis de l'apprentissage en ligne sont les mêmes. Alors que les étudiants apprécient l'opportunité de travailler à l'avance et d'étudier à leur propre rythme, ils le voient comme un défi d'être responsables de leur propre apprentissage et de gérer leur temps. Les auteurs de ce document affirment qu'avec des structures de soutien appropriées en place, les élèves qui sont à risque de décrochage peuvent surmonter les défis et trouver le succès dans un environnement d'apprentissage en ligne.

INTRODUCTION

The findings described in this paper point to the benefits and challenges of online learning for at-risk populations. Whether at-risk students whose personal characteristics and other circumstances may impact their online learning experience (Barbour & Siko, 2012) can be successful in a virtual environment is also explored. According to Hammond, Linton, Smink, and Drew (2007), while there is no single factor that can accurately predict who is at risk for dropping out of school, students who experience low achievement regarding school performance fall into the at-risk population. Furthermore, researchers agree that dropout predictions increase when multiple variables regarding the individual, family, school, and/or the community are combined (Archambault et al., 2010; Hammond, Linton, Smink, & Drew, 2007; Rapp, Eckes, & Plurker, 2006; Tompkins & Deloney, 1994; U.S. Department of Education, 1992; Watson & Gemin, 2008). For example, students who have experienced low achievement and who suffer from an emotional disturbance or learning disability are more likely to discontinue their studies than other students.

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While we know the factors that contribute to being identified as at-risk, more studies are needed to explore the experiences of students in a virtual learning setting, especially those who are classified as at-risk (Barbour, 2009; Cavanaugh, Barbour, & Clark, 2009; Scherer, 2006). In 2009-2010, there were an estimated 1,816,400 enrollments in distance education courses in K-12 schools across the United States; 62% of these enrollments fall into the category of credit recovery (International Association for K-12 Online Learning, 2013). These enrollments include students taking online courses to recover credits due to failing a course(s), most likely in a face-to-face setting.

In an attempt to highlight the potential of online learning for at-risk populations, two educational options for at-risk students in North Carolina are discussed in this paper. Based on surveys with a combined population of over one thousand students, we suggest that implementing scaffolds and structures, such as measures of online readiness, student orientations, technology support, and mentoring, provide the support needed for at-risk students to be successful in online and blended learning environments.

BACKGROUND

In this study, the benefits and challenges of online learning for at-risk students were examined. Two different online and blended learning environments — the North Carolina Virtual Public School (NCVPS) and the North Carolina Performance Learning Centers (PLCs) — were evaluated and are described in the following sections.

North Carolina Public Schools (NCVPS)

Since 2007, the NCVPS has served 175,000 middle and high school students (North Carolina Virtual Public School, 2013a), offering over 150 Advanced Placement, Honors, Traditional, Credit Recovery (CR), and Occupational Course of Study (OCS) course options (North Carolina Virtual Public School, 2013b). In 2012-2013, NCVPS reported the second highest student enrollment in the country at 94,716 (Watson, Murin, Vashaw, Gemin, & Rapp, 2013). NCVPS instructors utilize the Moodle and Blackboard learning management systems to deliver course content. The majority of student-teacher interaction is asynchronous which provides students with flexible, continuous access to their courses and opportunity to work at their own pace. Course structure includes “a variety of learning experiences for students, including online discussions and collaborative projects” (Garrett Dikkers, Whiteside, & Lewis, 2013).

Since 2011, the authors of this paper, using a case study approach, have explored the experiences of North Carolina Virtual Public School (NCVPS) CR and OCS students. Students in NCVPS-CR classes need to “recover” credit previously lost by failing a course. OCS students have identified delays in their learning due to an academic disability or physical impairment. OCS students work with an online NCVPS teacher as well as a face-to-face special education teacher to complete their coursework. Both NCVPS-CR and OCS students can experience low achievement which, when combined with other factors such as a learning disability, leads them to be categorized as at-risk (Archambault et al., 2010; Hammond, Linton, Smink, & Drew, 2007; Rapp, Eckes, & Plurker, 2006; Tompkins & Deloney, 1994; U.S. Department of

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Education, 2009; Watson & Gemin, 2008). For purposes of this paper, the acronym NCVPS will be used to represent the CR and OCS students.

Performance Learning Centers

The five Performance Learning Centers (PLCs) in North Carolina serve students who have not been successful in a traditional high school setting for a variety of reasons, including low achievement, academic disabilities, and family variables. In 2012-2013, PLCs in North Carolina served approximately 700 students. The PLC model was developed by Communities in Schools, an organization whose mission focuses on “surrounding students with a community of support” so that students may experience success in school and in life (Communities in Schools, 2014). Students complete coursework in both face-to-face and online environments “through the use of a self-paced, online curriculum” (Communities in Schools, 2011). In a second case study, the authors evaluated the experiences of students who attended two PLCs and engaged in online and blended learning for course credit.

BRIEF REVIEW OF THE LITERATURE

Both K-12 online learning opportunities and virtual high schools are increasing across the country (Watson, Murin, Vashaw, Gemin, & Rapp, 2011; Picciano & Seaman, 2008). In 2013, an annual review of online learning reported that all 50 states in the United States provide some type of online learning opportunity for K-12 students and that 26 states partially fund state-established virtual schools (Watson, et al., 2013).

More studies are needed to examine the quality of the high school student learning experience in the virtual environment, especially those of lower performing and at-risk students, in order “to design appropriate supports as this particular population of students continues to grow within virtual schools” (Cavanaugh, Barbour, & Clark, 2009, p. 13). The International Association of K-12 Online Learning (iNACOL) Research Committee (Archambault, et al., 2010) reports that 9% or 1.2 million high school students in the United States drop out before graduation each year (p. 2).

As a potential solution to this monumental problem, Rose and Blomeyer suggest that virtual schools “are well positioned to directly address the needs of at-risk learners” (as cited in Archambault et al., 2010, p. 3). Moreover, Hupfield (2010) states that two concepts play a large role in whether students graduate: (a) the level of quality adult-student relationships in their lives, and (b) the extent to which they work on six key resiliency skills: building confidence, making connections, setting goals, managing stress, increasing well-being, and understanding motivation (pp. 2-4).

The theoretical framework for this study is Bandura’s Theory of Self-Efficacy. As Bandura (1982) suggests, “Students’ beliefs in their efficacy to regulate their learning and to master academic activities determine their aspirations, level of motivation, and academic accomplishments” (p. 117). Additionally, Bandura (1997) contends that “unless people believe that they can produce the desired effects by their actions, they have little incentive to act” (p. 28). Recognizing that online learning presents a new

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landscape for students, it is important that students feel in control of this landscape and their learning in it. At the same time, they must also take responsibility, invest in the learning process, and have specific supports in place in order to experience success.

STUDY DESIGN

In the investigation described in this paper, the NCVPS and the PLCs provide a set of case studies. The case study method involves interpretive inquiry focused on observing and researching a particular phenomenon within its context. Yin (2003) defines a case study as “an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (p. 13). Soltis (1990) speaks of the ethical importance of this type of research because it describes cultural and social context, allows for rich assessments, explores the effects on human agency, and provides a critique for gender, race, and other important topics in our culture.

METHODS

In this three-year mixed methods case study, the researchers examined the benefits and challenges of online learning for at-risk students, including whether the online environment helps or hinders their learning experiences as well as supports structures that, when implemented, could lead to increased student self-efficacy. Our research questions included:

1. What are the experiences of at-risk adolescent students in an online learning environment?
2. What support and other systems need to be in place for students to be successful?

Data Collection

Because the literature points to survey methods as the best approach for mid- to large-sized populations (Babbie, 1973), the authors designed a survey for students with a mix of demographic, closed-choice, Likert-scale, and open-ended questions. In 2012, the open-ended survey was administered to NCVPS students (n = 220). The students were asked to identify the benefits and challenges of online learning.

Subsequent student surveys were administered in 2013 (NCVPS district-based summer school: n = 26; PLCs: n = 63) and in 2014 (NCVPS: n = 833). NCVPS posted a link to the survey as part of an institutional announcement in the course management system and an email was sent to teachers to encourage their students to complete it. PLCs distributed the survey to students via email. Institutional ethics approval from NCVPS, the PLCs, students, parents, and the authors' universities was obtained prior to data collection procedures.

FINDINGS

Autonomy and Responsibility

Multiple surveys of K-12 at-risk students at NCVPS and PLC schools who studied in online and blended courses yielded the same results. Table 1 provides information about the students in each at-risk

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population who consistently identified pacing and the ability to work ahead as significant benefits, and responsibility and time management as significant challenges of online learning. As one NCVPS student commented, "I had to change my ways of thinking. In the past I would be motivated [sic] by the teachers in the classroom but with an online learning I had to motivate myself, which was a learning experiment that I will use all though life." While students appreciated the opportunity to work ahead and at their own pace, they saw it as a challenge to be responsible for their own learning and manage their time. One student noted the following, "You always have your work with you, and can do it at any time." Another student pointed out that "staying on task and turning in work on time" was a challenge. These results align with Hurley (2002) who found that students had problems completing assignments in an online environment because of the flexibility they had in their online courses. Similarly, Archambault et al. (2010) identified lack of self-motivation and engagement and the need to develop students' time management skills as major challenges for at-risk populations.

Table 1. The Benefits and Challenges of Online Learning for At-risk Populations of Students

	Benefits of Online Learning		Challenges of Online Learning	
	Pacing	Working Ahead	Responsibility	Time Management
Performance Learning Centers (PLC)	95.16% n = 62	96.77% n = 62	64.52% n = 62	72.58% n = 62
NCVPS District-Based Summer School*	92% n = 23	80% n = 20	68.18% n = 15	59.09% n = 13
NCVPS Occupational Course of Study and Credit Recovery**	61.87% n = 695	47.34% n = 695	59.54% n = 646	39.94% n = 646

Note:

Every participant did not respond to each question; therefore, n equals the number of respondents to each question.

* 80% of students in the NCVPS District-Based Summer School Survey also identified the opportunity to retake a course they previously failed as a significant benefit.

** 55.68% of students in the NCVPS Occupational Course of Study and Credit Recovery Survey also identified the opportunity to graduate as a significant benefit.

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DISCUSSION

Supporting At-Risk Students in Online Environments

Online administrators and educators face a major challenge of designing support structures that ultimately lead to student success and ease their learning challenges. According to the National Dropout Prevention Center/Network (Smink & Schargel, 2004), there are fifteen effective strategies for preventing students from dropping out of school. These strategies are divided into four domains: School and Community Perspective, Early Interventions, Basic Core Strategies, and Making the Most of Instruction. In effective online programs, strategies in each of these domains often exist and, as a result, engage at-risk students by keeping them motivated and enabling success. Hupfield (2010) found that quality adult-student relationships and resiliency skills also play roles in student success. The teacher's role in the online learning process (Garrett Dikkers, Whiteside, & Lewis, 2012, 2013), coupled with student self-efficacy, can greatly influence motivation and learning (Bandura, 1982; Dicintio & Gee, 1999). The findings from this study clearly identify a need to increase supports for at-risk students, particularly when they study in online learning environments. These strategies need to facilitate opportunities for self-pacing and autonomy in the learning experience while ensuring that appropriate guidance and monitoring are in place.

Strategies for Successful Online Learning for At-Risk Students

Some of the benefits of educational technology include flexible access to learning opportunities, improved mastery of content, improved attitudes toward learning, and access to individualized instruction (Smink & Schargel, 2004). For example, NCVPS Credit Recovery students have access to their online courses twenty-four hours a day, seven days a week. Learning is flexible. Students have a pacing guide outlining a structure for success in the course; however, they may move at their own pace, completing learning modules one or two at a time, working ahead or working more slowly than the recommended pace.

The authors also contend that at-risk students need a strong foundation in online learning readiness and a solid orientation to the online learning environment. Findings from several surveys used in the case studies revealed that less than half of the student participants received any sort of support during their first online learning experience. Of those who did receive help, most received it from a parent, relative, or a teacher. In general, students largely took on this heavy burden themselves. Although empowerment through perseverance is certainly important, it is more important to learn course content than it is to troubleshoot technology issues. Moreover, it is important that students feel supported and welcomed in the online learning environment and that technology is not a barrier to successful learning. Adequate orientation to the learning environment and guidance in online learning readiness assists at-risk students in making a smooth transition, and in believing that they can excel in the online learning environment.

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Additionally, the affordances of the online environment and educational technology should match well with the requirements of mastery learning since this approach has proven successful in online schools (Cavanaugh, 2009). NCVPS employs mastery learning to ensure student success. Students' prior knowledge is determined through an online pre-assessment for each module. A student who scores an 80 or above is permitted to bypass a module. A score of 80 or greater is regarded to be a mastery demonstration of the module's content due, perhaps, to instruction in their face-to-face school setting. Educational technology also provides access for students and opportunities for teachers to individualize course content. As evidenced by this study, students excel when instructors work one-to-one with them to confirm their mastery of content, address questions, and motivate them. In general, teachers recognize that every student is unique and learns at his/her own pace and in personally-specific ways. If online teachers are to individualize instruction for their students, they must have an understanding of students' prior knowledge and construct lessons based on this understanding. Furthermore, the authors advocate online course modules with a mix of instructional strategies, such as audio, videos, and discussions.

Consistent with the notion that at-risk students may require greater online support and facilitation of their learning than other students, the authors recommend an individualized, face-to-face support system with a dedicated coordinator who assists the at-risk learner with on-going project management skills and continuously monitors their learning process. Cavanaugh (2009) has noted that on-site facilitation for guided learning is a major factor that determines success for online students. As an example, one district in the NCPVS summer school study created a school-based Virtual Academy Coordinator position. These instructors served as the face-to-face contact for students taking online classes during the summer session. One coordinator described her role as providing support, structure, and motivation for students working in the lab for summer school Credit Recovery. NCVPS created a Virtual Support Center where students or school-based eLearning Advisors (eLAs) can submit tickets for technology help and course issues. This resource reduces student stress and limits the time spent on the technical hassles sometimes encountered when learning online.

Finally, the researchers strongly suggest the development of a careful strategy of intervention for students who are low-performing, under-performing, or at-risk for dropping out of school. NCVPS has created a list of intervention strategies, including access to updated progress reports and report cards every two weeks, mandated office hours for course instructors to offer live help, one-on-one instructor tutoring, and peer tutoring support. Under the umbrella of peer tutoring, NCVPS instructors can recommend that a struggling student receive a virtual buddy or a student volunteer who has committed to work one-to-one with students whose needs reach beyond content support (A. Renfro, personal communication, April 9, 2014). Face-to-face support coupled with the affordances of autonomy and

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personalization in online learning environments may be the formula for success for helping at-risk students succeed.

Final Thoughts

In closing, this study suggests that online coursework may lead to increased self-efficacy in at-risk students if adequate supports are in place to help them to succeed. Students still struggle with the balance between the freedom of autonomy and the time management skills necessary to be successful in an online learning environment. If the benefits of online learning are also the perceived challenges, then at-risk students need more support to continue to transform perceived obstacles into online opportunities. When the proper structures are in place, online and blended learning experiences can serve as powerful solutions for at-risk students and may lead to a sharp decline in the number of future high school dropouts.

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