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Assignment 1 - Forms/Models/Types of Virtual Schools
EDTC 650
October 8, 2015

50 Shades of Gray: The Many Faces of Virtual Schooling

Introduction

Virtual schooling is one of the most significant innovations in K-12 education, beginning in the mid-1990's and growing steadily to date. Online education provides benefits that span from meeting special needs for learners, to providing opportunities for advanced training. Given the diversity of learning experiences and methods of delivery encompassed in "virtual schooling" it becomes necessary to consider ways to classify or categorize virtual schooling. The purpose of this paper is to define "virtual schooling," describe the benefits and challenges, to describe the various structures and forms of virtual schooling, and in particular to describe the role and responsibilities of virtual schooling for learners with special needs.

Describing Virtual Schooling

Barbour and Reeves (2009) provide several definitions of virtual schools. One definition of a virtual school provided by Clark (as cited in Barbour and Reeves, 2009, p. 403) is as follows: "a state approved and/or regionally accredited school that offers secondary credit courses through distance learning methods that include Internet-based delivery." Not all definitions of virtual schooling include a component that speaks to accreditation, although Barber and Reeves do prefer to include programs approved or accredited by an official body (p. 403). Virtual schooling (either entirely online or as part of a blended classroom) is not an infrequent occurrence; it is estimated that over 1.5 million students in K-12 participated in the 2009-2010 school year (Wicks, 2010, p. 6).

There are many advantages of virtual schooling for both individual learners and school systems. Berge (as cited in Barbour and Reeves, 2009) categorized the benefits of virtual schooling into four categories: “expanding educational access, providing high-quality learning opportunities, improving student outcomes and skills, and allowing for educational choice” (p. 407). Expanded educational access is one of the most-frequently mentioned advantages to virtual schooling. Students who attend school in rural areas can have access to advanced training opportunities that they would not otherwise have. This may include courses in specialized or advanced areas of study, courses needed for college admission, and courses not otherwise available to ethnically disadvantaged learners.

Watson and Gemin (2008) describe the sobering statistics regarding the drop-out rate of minority students in public school – almost 50% of all African Americans, Hispanics and Native Americans do not graduate with their class (p. 5). Online learning has been shown to be beneficial for students who require credit recovery because it removes the social stigma of poor academic performance, students receive individualized instruction, and diagnostic testing can be incorporated to keep students on track (p. 14).

Virtual schooling can be extremely beneficial for students who cannot feasibly attend a bricks and mortar classroom environment such as those who have physical limitations or special needs, those who are hospitalized or home-bound, those who travel, and those who are suspended from school or are incarcerated.

Challenges to virtual schooling include high start-up costs, internet access issues, and the lack of consistent adherence to or pursuit of program approval or accreditation (Barbour and Reeves, 2009, p. 409). Berge and Clark (as cited in Barbour and Reeves, 2009, p. 409) also mention student readiness issues and retention issues as challenges for virtual schooling.

Models and Types of Virtual Schools

As described earlier, definitions of virtual schooling vary widely. Barbour and Reeves cite several definitions, and globally describe virtual schooling as “an online, Internet-based or web-based distance education program available to K-12 schools and students” (2008, p. 404). Part of the difficulty in establishing a definitive definition of virtual schooling is the multi-faceted nature of virtual schooling, and the numerous potential vantage points capable of describing this method of education. For example, Clark (as cited in Barbour and Reeves, 2008, pp. 404-405) differentiated between virtual schooling models based on the entity responsible for the administration of the program (Table 1). Watson (as cited in Barbour and Reeves, 2008, pp. 404-405) focused more on the geographic scope of the program and level of student enrollment (Table 1).

The complexity in describing virtual schooling is summarized in an excellent primer on K-12 online learning provided by the International Association for K-12 Online Learning (Matthew Wicks & Associates, 2010). This report identifies ten different dimensions of online programs and the possible options within each dimension (Figure 2). For example, online programs have varying degrees of comprehensiveness. Online coursework can be supplemental, or represent a full course load. One example is a student in a rural area who wishes to take AP physics, which may not be available in a face-to-face environment at the local high school. By taking this one course online with an instructor who may be in a different part of the state, or a different state entirely, the student can achieve their goal. Alternately, students may attend a virtual school full time; all their coursework is completed online.

In addition to comprehensiveness, the Wicks report identifies three additional dimensions as highly significant. The second dimension is reach – the catchment area of learners who enroll

in the course. Learners could all be local within one school district, include more than one school district, or extend throughout the state, country, or internationally.

Delivery, either synchronous or asynchronous, is a defining difference between online programs. The majority of online programs in virtual schools are conducted asynchronously, with learners and students working at different times. This is particularly useful for students who have a schedule out of synch with students attending traditional school (e.g., students who are traveling, or disability prevents their participation for 6 or more hours continuously).

The last significant dimension is the type of instruction, ranging from fully online to fully face-to-face. Many virtual school programs are offering a “blended” learning experience that contains elements of both online learning and traditional face-to-face learning.

Given just these four significant dimensions and all their possible permutations, it is clear that virtual schooling could potentially represent a vast array of types of experiences. If all ten dimensions and their possible permutations were considered, there could be thousands of potential configurations for virtual schooling!

Special Needs Students and Virtual Schooling

The “Individuals with Disabilities Education Act” defines special education as “specially designed instruction, at no cost to the parents, to meet the unique needs of a child with a disability” (Center for Parent Information and Resources, 2015). This includes instruction provided in a traditional classroom, student’s home, hospital or institution or other setting, including traveling. The act encompasses instruction in physical education, speech-language pathology, and vocational training. The goal is “to ensure access of the child to the general

curriculum, so that the child can meet the educational standards within the jurisdiction of the public agency that apply to all children” (Center for Parent Information and Resources, 2015).

Given special health or educational needs of selected learners, virtual schooling offers many potential benefits to these learners, particularly the ability to work asynchronously in time and space from the teacher. Technology has also advanced to the point that students with hearing and sight deficits can use alternate strategies to master new content. However, it is critically important that we assure the same quality in online education for special needs learners as we do the general population. Despite the exponential growth in virtual schooling, research has been somewhat lacking in this area of education, particularly as it pertains to special needs learners.

Carnahan and Fulton ask four questions pertaining to special education students in cyber schools (2013). The first question addresses the population size of special education students in cyber school; the answer is that approximately 15.4% of students enrolled in online learning are special education students, which is slightly higher than traditional school (p. 49).

Carnahan and Fulton’s second query was what types of disabilities are found in cyber school students. The cumulative average from 2005 – 2009 is as follows: autism (7.22%), emotional disturbance (13.99%), mental retardation (6.02%), other health impairment (7.08%), specific learning disability (62.73%), and speech or language impairment (12.00%) (pp. 49-50).

A critically important question evaluated by Carnahan and Fulton is what are the learning outcomes of special education students? Do they perform as well academically as students who attend a traditional educational institution? Thompson, Ferdig and Black (2012) compared online learners with traditional learners in K-12. They found that the prevalence of children with special health care needs was higher in the online cohort (24.6%) when compared to state data. Interestingly, special needs students learning online whose parents had a bachelor’s degree or

higher performed better than special needs students attending a traditional school. Conversely, special needs online students whose parents did not have a bachelor's degree or higher performed more poorly than special needs students in a traditional environment. Carnahan and Fulton analyzed what percentage of online special needs learners met achievement goals set by the national government, in the state of Pennsylvania, compared to special needs students in a traditional learning environment. Special needs students in Pennsylvania in all institutions averaged a 39.9% proficiency rate, compared to online special needs students who achieved a 33.9% proficiency rating (2013, pp. 49-50).

The last question addressed by Carnahan and Fulton was whether special needs online learners participate in the same "environment" as other online students. They explain that the same environment refers to special needs students participating in at least 80% of the general education courses. In their survey they found that the majority of cyber schools (94.6%) met this 80% bar, which was in excess of the state average of 55.3% (p. 50).

Teaching online, and teaching special needs students requires a specific set of skills. Teaching special needs learner online raises the bar even higher for educators. In a moving account by Weir (2005), one educator describes how she received extensive training in online teaching, but none of her training included any discussion on developing course materials for special needs students. Where can teachers and administrators find information to help them assure access and equity for online learners with special needs? An excellent review is provided by the International Association for K-12 Online Learning (2015). In this guide they reference legislation that demands equity in education for all, and "provide guidance, direction, and resources to help programs meet their moral, ethical, and legal obligations to best ensure all students have access to the educational opportunities provided for them in online and digital

learning” (p. 4). In addition to reviewing the standards and roles for the course designer, instructor and program administrator/manager, they provide guidance on how to self-monitor a program to assure compliance with regulations. This resource is an excellent guide for those involved in online education for students with special learning needs.

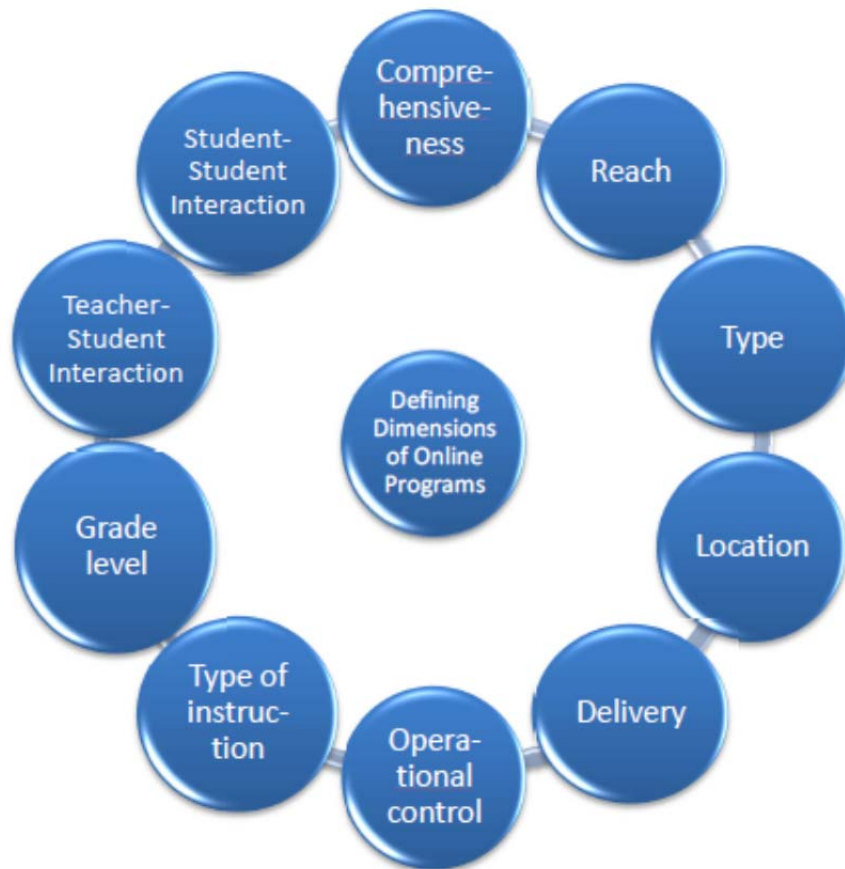
Conclusion

Virtual schooling has been growing at an exponential rate since inception in the mid-1990’s. In the 2009-2010 school year over 1.5 million K-12 students participated in virtual schooling (either fully or in a blended environment) (Wicks, 2010, p. 6). Virtual schooling in the K-12 years offers benefits such as expanded educational access, high-quality learning opportunities, improved student outcomes and skills and enhanced educational choices (Berge, as cited in Barbour and Reeves, 2009, p. 407). Virtual schools can be quite diverse in many aspects including comprehensiveness, geographic reach, delivery and type of instruction (Wicks, 2010). Virtual schooling has become a disproportionately attractive option for special needs learners. To achieve successful outcomes however, virtual schools that include special needs learners must make special efforts to train teachers appropriately, and assure equity and access to this often fragile and disadvantaged learner population.

Table 1 – Clark vs. Watson Categories of Virtual Schools (Clark, 2001; Watson, 2004)

Clark’s Seven Categories of Virtual Schools	Watson’s Five Categories of Virtual Schools
<ul style="list-style-type: none"> • State-sanctioned, state level • College and university-based • Consortium and regionally-based • Local education agency-based • Virtual charter schools • Private virtual schools • For-profit providers of curricula, content, tool and infrastructure 	<ul style="list-style-type: none"> • Statewide supplemental programs • District-level supplemental programs • Single-district cyber schools • Multi-district cyber schools • Cyber charters

Figure 1 – The Defining Dimensions of Online Programs (Matthew Wicks and Associates, 2010, p. 11)



Element	Possibilities
Comprehensiveness	Supplemental program (individual courses), Full-time school (full course load)
Reach	District, Multi-district, State, Multi-state, National, Global
Type	District, Magnet, Contract, Charter, Private, Home
Location	School, Home, Other
Delivery	Asynchronous, Synchronous
Operational Control	Local board, Consortium, Regional authority, University, State, Independent Vendor
Type of Instruction	Fully online, Blending Online and Face-to-Face, Fully Face-to-Face
Grade Level	Elementary, Middle School, High School
Teacher-Student Interaction	High, Moderate, Low
Student-Student Interaction	High, Moderate, Low

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investing in online course materials that enrich the classroom experience for special-needs students. *T.H.E. Journal*, 32(10), 30.

Criteria	100-90	89-80	79-70	<69	Total/100
Effective Introductory Statement	The introduction is focused, well-developed and states the main thesis with precision, and clearly previews the structure of the essay.	The introduction states the main topic and previews the structure of the essay, but the introduction may be a little vague in places or may only partially address the author's thesis or purpose.	The introduction states the main topic, but does not adequately preview the purpose of the essay or its structure. It may be unclear.	There is no clear introduction of the main topic or structure of the paper.	/20
Sources	Student selected article is current and scholarly. All sources used for quotes and facts are credible	Student selected article, but may be older than three years. All sources used for quotes and facts are	Student selected article is not current and are not scholarly. Most sources used for quotes and facts are	Student fails to select an article. Many sources used for quotes and facts are less than credible (suspect)	18/20

	and cited correctly using APA Style in-text citations and references.	credible and most are cited correctly using APA Style in-text citations and references.	credible and cited correctly using APA Style in-text citations and references.	and/or are not cited correctly.	
Focus on Topic	There is one clear, well-focused topic. Main idea stands out, is perceptive, and is supported by clear, convincing and detailed information.	Main idea is clear but the supporting information may be somewhat general or the essay may be more descriptive than analytic in spots.	Main idea is somewhat clear but there is a need for more supporting information.	The main idea is not clear. There is a seemingly random collection of information.	/20
Synthesis of Topic	The writer successfully outlines forms, models/types of virtual schools. Responses include mention of special populations	The writer adequately outlines forms, models/types of virtual schools. However, key items for interpretation may be missing or unclear. There is a nod to	The writer is outlines forms, models/types of virtual schools, but at a very base level. There is no nod, or very little mention of special populations.	The writer fails to successfully outline forms, models/types of virtual schools.	/20

	and are categorized logically.	special populations, but specifics are lacking			
Conclusion	Conclusion successfully packages the essay.	Conclusion packages the essay, but may be missing key details.	Student writes a conclusion that fails to summarize and package the essay.	The writer fails to include a concluding paragraph.	/20
					Total 98