The Impact of U.S. national and state level policy on the nature and scope of K-12 virtual schooling

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The Impact of U.S. National and State Level Policy on the Nature and Scope of K-12 Virtual Schooling

Abstract: During the past five years, virtual schools in the United States have gained popularity and acceptance as viable alternatives to the traditional school system through provisions for charter schools under Title V, Part B, Subpart 1 of the Elementary and Secondary Education Act of 1965 (ESEA), as amended by the No Child Left Behind Act of 2001. This paper describes the existing federal policies that are driving the online virtual school movement, and how one state, Nevada, has set forth and interpreted specific policies regarding online distance education. In addition, this paper identifies the beliefs acting as the driving forces behind such policies in the United States and discusses implications for other countries also seeking to set forth guidelines for K-12 online distance education programs.

K-12 Virtual Schooling in the United States

While modes and methods of teaching remained much the same during the 20th century, the development of recent technology has vastly changed the way we communicate, learn, and engage with one another. As a result, the 21st century educational landscape has also been altered. One of these changes has been the addition of distance education, specifically the proliferation of virtual schools in K-12 settings. These programs allow students to complete entire grades via the Web. In the case of virtual high schools, students are able to earn their diplomas via online distance education programs. Clark (2001) defines a virtual school as “an educational organization that offers K-12 courses through Internet or Web-based methods” (p.1). To incorporate this mode of education, various formats have emerged from a variety of sources including state, local, private, and non-profit. The extent to which the content is available online also differs. While certain virtual schools have been created to include curriculum that is entirely online, others have incorporated specific distance education courses that are offered in addition to their traditional classes held in “brick and mortar” buildings (Roblyer & Marshall, 2002-2003).

In all of their various inceptions, virtual schools can be viewed as part of the online distance education movement in which the Internet is used to provide education to students. Many terms have emerged to describe different types of online distance education within virtual schooling, including “e-learning,” “hybrid courses,” “asynchronous learning,” and “web-based learning,” adding to the confusion of researching this particular field. Finally, however, in a recent report regarding online distance education, Allen and Seaman (2006) developed specific definitions, including the following: Online—Course where most or all of the content is delivered online. At least 80% of seat time being replaced by online activity; Blended/Hybrid—Course that blends online and face-to-face delivery in which 30% to 79% of the content is delivered online; and Web-Facilitated—Course that uses web-based technology (1-29% of the content is delivered online) to facilitate a face-to-face course.

In understanding the scope of virtual schools, it is helpful to gain an overall picture of the current status of online K-12 education in the United States. In a national survey of 2,305 public school districts in the 50 states and District of Columbia, Setzer & Lewis (2005) found that during the 2002-2003 school year, approximately one-third of public school districts (36%) had students enrolled in distance education courses. In fact, the most recent national data show that of a survey of 366 school districts, 57.9% had at least one student who took an online course during the 2005-2006 school year, with an additional 24.5% planning to add online courses to their offerings in the next three years (Picciano & Seaman, 2007). Examining existing data (Setzer & Lewis, 2005; Smith, Clark & Blomeyer, 2005) and extrapolating these figures, an estimated 600,000 to 700,000 K-12 public school students were engaged in online learning in 2005-2006, even without counting private school enrollment or the large home-school population. These figures are expected to increase as more school districts explore the potential advantages of offering online classes (Setzer & Lewis, 2005).
United States Federal Policy and Virtual Schooling

Two major policies have encouraged the proliferation of virtual schooling throughout the United States. These include the No Child Left Behind Act (NCLB, 2001) and the National Educational Technology Plan (NETP), a specific plan required to be implemented by NCLB. NCLB sets into place many elements of educational reform, including school accountability measures such as high stakes testing, school choice options for children whose schools are failing, and guidelines for increasing teacher quality. Each of these fundamental elements has the specific goal of improving student achievement.

Virtual schools have gained popularity and acceptance as viable alternatives to the traditional school system through NCLB’s provisions for charter schools and school choice options. Title V, Part B, Subpart 1 of the Elementary and Secondary Education Act of 1965 (ESEA), as amended by NCLB, discusses the purpose of the Charter School Program (CSP). The function of the CSP is to increase the number of high-quality charter schools available to students through federal funding for charter school program design, initial implementation, planning, and evaluation (Charter School Program, 2004).

NCLB amended the CSP in two key ways that have impacted the increased number of virtual schools created since NCLB was adopted. 1) NCLB amended the definition of “eligible applicant” under the CSP to eliminate the requirement that a charter school developer enter into a partnership with an authorized public chartering agency in order to qualify for federal funding. This effectively opened the door for outside organizations to form and apply for charter school status. 2) NCLB also amended the CSP by adding a specific provision prohibiting local educational agencies from deducting funds for administrative fees or expenses from a subgrant awarded to an eligible applicant. Through these changes to the CSP, NCLB was responsible for relaxing the qualifications for charter school funding. This has had a direct impact on the increasing number of organizations receiving charter status, including those who have decided to implement the use of online distance education to provide classroom instruction.

Because one of the goals of NCLB was to encourage school choice and provide alternative options to the failing traditional system, allowing organizations to create schools which are significantly different from existing schools fits well within its overall agenda. As long as these virtual schools are able to demonstrate adequate yearly progress (AYP) as measured by students’ standardized test scores, they will continue to be funded. Because funding follows the student from their zoned school to the virtual charter school, this has also led to the increasing popularity of such charters, due to the fact that parents are provided with an alternative schooling option without having to incur any cost.

Another reason virtual schools have been catapulted to the forefront of the discussion regarding school choice and the charter school movement is the fact that technology has made this option a realistic choice for anyone with a computer and an Internet connection, regardless of physical location. The ability of technology to easily deliver content at multiple levels has provided an additional incentive. A majority of these virtual schools are providing K-12 content in which students can work at their own level, as opposed to being labeled by a particular grade (Clark, 2001).

National Educational Technology Plan (NETP)

In addition to the school choice movement, which has indirectly impacted the proliferation of virtual schools, the formation of a National Educational Technology Plan has also had a direct impact. Under Section 2422, the NCLB Act required that the Secretary of Education submit and publish a national long-range technology plan, no later than 12 months after the adoption of the No Child Left Behind Act of 2001. The purpose in doing so was to examine, “the continuing and future needs of the Nation's schools in effectively using technology to provide all students the opportunity to meet challenging State academic content and student academic achievement standards” (NCLB, 2001). According to NCLB regulation, the plan needed to address specific areas including how the Secretary would promote higher student academic achievement through the integration of advanced technology into curricula and instruction. It also required that the digital divide be addressed, along with ways in which schools with low socioeconomic students would be provided access to technology for teaching and learning. Additionally, NETP needed to address the use of technology to assist in the implementation of state systemic reform strategies and to
discuss strategies for federal agencies, including those of the Department of Education and other federal departments for promoting the use of technology in education.

In January 2005, Education Secretary Rod Paige submitted the latest version of the NTEP, the first plan under NCLB. Published by the United States Department of Education and titled, Toward a New Golden Age in American Education: How the Internet, the Law and Today’s Students are Revolutionizing Expectations, the plan outlines seven major objectives related to integrating technology into the current education system to improve student achievement and help to make America’s students more competitive in the world market. As the report states:

Clearly, we must innovate for our country to succeed in this time of rapidly increasing global competition. This innovation is occurring. We see dramatic changes taking place in the educational landscape – a new excitement in the vast possibilities of the digital age for changing how we learn, how we teach, and how the various segments of our educational system fit together – a ferment for reform that is bringing changes undreamt of even five years ago and unparalleled in our nation’s history (National Educational Technology Plan, 2004, p. 9).

The NETP harkens back to concerns raised by A Nation at Risk in 1983, and specifically discusses how technology is going to be a major part of addressing these concerns. The seven main areas of the report directs educators and administrators to: 1) strengthen leadership, 2) consider innovative budgeting, 3) improve teacher training, 4) support e-learning and virtual schools, 5) encourage broadband access, 6) move toward digital content, and 7) improve achievement through student data management. Specifically relevant to this discussion is the NETP’s focus on supporting e-learning and virtual schooling. The plan recognizes the increase in the number of schools offering both supplemental content via the Internet, such as specific classes, as well as those offering complete programs online in order to provide more choice and educational opportunities to students. It specifically encourages development of e-learning and virtual schooling, making the following recommendations for states, districts, and schools:

- Provide every student access to e-learning.
- Enable every teacher to participate in e-learning training.
- Encourage the use of e-learning options to meet No Child Left Behind requirements for highly qualified teachers, supplemental services, and parental choice.
- Explore creative ways to fund e-learning opportunities.
- Develop quality measures and accreditation standards for e-learning that mirror those required for course credit. (NETP, 2004, p. 42).

To meet the requirements of NCLB, the NETP specifically encourages and calls for the proliferation of e-learning, making it available to all students. This policy has encouraged the emergence of a number of virtual schools at the K-12 level, which together with NCLB, promotes innovative and alternative forms of education through both its changes to the charter school program and its emphasis on school choice. As the plan states, “The technology that has so dramatically changed the world outside our schools is now changing the learning and teaching environment within them. Sometimes this is driven by the students themselves, born and comfortable in the age of the Internet” (p. 6). The NETP recognizes that for the upcoming generation of students, learning is no longer limited to a fixed place, at a fixed time, as with traditional school models. Because the pervasive nature of the Internet makes it possible for students to engage with material anywhere, at any time, modes and models of education are changing to reflect this.

Key educational policies, such as NCLB and the NETP, are beginning to recognize the powerful potential of technology, most specifically the Internet, to transform the traditional notion of teaching and learning in order to meet the their outlined goals of improving student achievement. In addition to these federal policies, states are beginning to follow suit in interpreting educational policy related to virtual schools. However, because states must deal with the difficult issues of implementation, online educational policy at the state level is developing at a slower pace (Watson, 2005).

**State Policies Impacting K-12 Virtual Schooling**

In 2005, the National Central Regional Education Laboratory (NCREL) published a ground-breaking report on the status of state-level policy and practice with regard to K-12 online learning. At that time, the report found
there was a lack of research and information concerning online distance education programs, specifically when it came to quality, cost, and funding methods. These issues are key areas of educational policy and, as the report documents, “…the concern raised four years ago by the National Association of State Boards of Education—that online learning developments would outpace the capacity of policymakers to shape these developments in constructive ways—has turned into an increasingly accurate prediction” (Watson, 2005, p. 11). This report was updated in 2006, and researchers found that 26 states now have significant state policies that govern district-level online programs or virtual schools. According to Watson & Ryan (2006), “State-level policies include legislation, education code, and formal rules promulgated by the state education agency” (p. 19).

Virtual schools are growing in number and popularity, in part as a result of the support of NCLB policy and NETP recommendations. In 2005, 16 states had significant policy guidelines regarding virtual schools and online distance education at the K-12 level: Alabama, Arizona, Arkansas, California, Colorado, Florida, Kansas, Louisiana, Minnesota, Montana, Nevada, Ohio, Oklahoma, Pennsylvania, Texas, and Washington. Ten more have added policy in the past year: Georgia, Indiana, Mississippi, Michigan, Nebraska, North Carolina, Oregon, South Carolina, South Dakota, Tennessee (Watson, 2005; Watson & Ryan, 2006). These policies center around various aspects of education, including funding, accountability, curriculum, teacher qualifications, teacher evaluation, and access. The following section provides a summary of Nevada state policies regarding these issues.

Summary of Nevada Policies Related to Online Learning

In the state of Nevada, the primary K-12 online distance education provider is the Clark County Virtual High School (CCSD VHS). CCSD VHS began in 1998 and until the 2004-2005 school year, it was supplemental in nature. During the 2004-2005 school year, CCSD HS enrolled 240 full-time, diploma-seeking students, in addition to over 5,000 who are taking courses on a supplemental basis. The range of students taking advantage of attending CCSD’s virtual school is vast. Some students are seeking to take Advanced Placement courses, while others are homebound and need the opportunity for them to complete their high school education. CCSD students also seek the virtual school environment to make up the credits they are lacking for graduation, while others come from outlying areas, where access to different types of elective courses is limited ("Transforming old notions of ‘schooling’", 2005). Below is a summary of Nevada’s policies related to online distance education.

Funding

Perhaps one of the most critical issues for the success and continuation of virtual schools is funding. According to Watson & Ryan (2006), “How much online education should cost, and how to fund it, remains one of the top issues facing policymakers” (p. 8). Just as states differ in their funding mechanisms and formulas for traditional education, this is also the case with virtual schooling. State-run programs, with specific policy in place regarding online schooling, commonly receive their funding from legislative appropriations. Another method of funding is to have monies tied to the state full time equivalent (FTE) formula, which does not differ significantly from the funding formulas for traditional schools. Using the FTE model, states fund districts at the per-pupil level, with various adjustments for grade level enrollment and district size.

The funding for CCSD VHS comes from regular FTE funding, and it is treated similarly to how the state oversees charter schools. For students wanting to take online courses from outside Clark County, they must obtain permission from their own school district to do so. If students are taking supplemental online courses from CCSD VHS, along with traditional classes from their home districts, the two districts must agree to the apportionment of funds. In order for CCSD VHS to obtain appropriate funding from students from outside districts, a written agreement must be filed with the state. In addition to per pupil allotments, CCSD receives approximately $200,000 per year in Title V federal funding, and charges a $100 student fee per course per semester. However, this fee is waived if the student is taking the class online due to a scheduling conflict or if their home school does not offer the course. Currently, the virtual high school through CCSD offers 121 different courses, in a combination of online, video, and hybrid formats (Watson & Ryan, 2006).

Typically, in states with online educational policy, funding is the key mechanism by which virtual schools are held accountable under NCLB guidelines. States with specific online education funding, either through legislative appropriation or through FTE formulas, tie this rate to student achievement as a way to keep virtual
Virtual schools in all states are required to administer standardized tests to their students, in accordance with NCLB requirements. However, no states have adopted policy to place additional testing requirements on online schools. The logistics of such testing, such as providing a physical place to take the assessment, are typically left to each of the local schools and/or districts (Watson, Winograd, & Kalmon, 2004). In addition to testing requirements, many states have placed reporting, accreditation, and time requirements on virtual schools. However, some states treat their online programs in the same fashion as their traditional schools, simply requiring state achievement testing data and verification of meeting accreditation standards. Most states with policy regarding online education programs require that either outside evaluations and/or accreditation reports be filed on a yearly basis. For example, Nevada has one of the most extensive reporting mandates, requiring a program description from each of its online schools, including how much was spent per student, the number of students, reasons for student enrollment, and an analysis of student achievement before and after involvement of the online program. This report must be submitted annually to the Nevada State Department of Education by November 1st (Nevada Revised Statue 388.870, 2001). Along with its reporting requirements, Nevada state law also requires, at a minimum, the same number hours or minutes of instruction are online as would be provided during a traditional school year of 180 days.

In addition to virtual schools being required to meet the same accountability standards set forth by NCLB, states require that online students meet state curriculum standards, just as students at traditional schools are required to do. None of the states has created a separate set of curriculum standards specific for online distance education. In addition, several states have passed measures to require that virtual schools provide similar “rigor” as traditional schools.

**Teacher Qualification and Evaluation**

Professional development to teach online is an important issue, as the number of online courses continues to grow throughout the nation. More and more teachers are facing the challenge of creating online versions of their traditional, face-to-face courses while still preserving the quality of their instruction. The preparation of these teachers, as well as their level of technological expertise, is likely to affect the quality of courses offered. This is an important area for future research in terms of teacher education programs.

The majority of states with virtual schools simply require that teachers in these environments be certified at the same level and by the same requirements as teachers in traditional schools. Nevada is no exception. CCSD VHS goes a step beyond the legislated mandate, and also requires that teachers take a minimum of 36 hours of training for those who are teaching an existing course, and up to 155 hours of training for those who are teaching and developing a course, following the requirements of the Virtual High School organization. In addition to certification requirements, some states also place contact requirements on teachers and specify the amount teachers must communicate with their students, as well as the number of students teachers are allowed to have if they are teaching online. Nevada requires that teachers have contact with students at least weekly (Nevada Revised Statute 388.866, 2001).

**Access**

The access to technology and the Internet has also become a major issue among states with virtual school programs. As far as state policy goes, online programs must conform to the same nondiscrimination laws, such as the Americans with Disabilities Act, that are applicable to traditional schools. However, no state statutes have addressed this issue specific to virtual schools. CCSD VHS does allow for loaner computers for students who cannot afford them.
Driving Forces Behind K-12 Online Education

Several beliefs regarding the nature of distance education are driving the current online movement, causing a rapid increase in the number of virtual schools throughout the nation. First, policymakers and education professionals believe that distance education can be implemented in such a way that it is equivalent or even superior to traditional, face-to-face instruction. This has proven to be the case in major meta-analyses concluding that online education outcomes show no significant difference from those of traditional environments (Cavanaugh et al., 2004; Smith et al., 2005).

Based on their beliefs regarding how online education occurs, some states have enacted policy that reflects their views. Although they are relatively few in number, states with primarily synchronous programs use text-based chat, one or two way video/audio, whiteboard space, and application sharing. These programs have been created under the assumption that in order for learning to occur, teachers and students must directly interact with one another, with students spending a specified amount of “seat-time” to receive credit for the course. This belief results in mandated time requirements that students and teachers must meet. For example, students in Clark County’s Virtual High School are require by Nevada state law, to “attend” the same number hours or minutes of instruction online as they would attend during a traditional school year of 180 days. Alabama also specifies seat time, requiring that for each course credit, students spend a minimum of 140 clock hours online. Recently, Indiana set forth policy creating online charter schools, but does not allow these schools to be “solely home-based.” In Ohio, each virtual school must provide a minimum of 920 hours of “learning opportunities” to students per school year, and only 10 hours in any 24-hour period can count toward this total.

Mandating time and space constraints in an online environment defeats the purpose of having distance education courses in the first place, but it reflects the efforts of legislators and educational professionals who believe that teaching and learning happen as a result of direct, in person contact with the teacher. As Watson and Ryan (2006) note, “Similarly, seat time requirements make little sense in an environment where seat time is hard to measure, and more importantly where true educational outcomes can be easily tracked and substituted instead” (p. 43). In addition to policies regarding seat time, other states have also enacted guidelines to prevent online distance education programs from infringing on the enrollment of traditional schools. In 2005, Ohio legislators passed a moratorium on the creation of any additional “eCommunity” (virtual) schools for a variety of reasons, most of which stemmed from the popularity of these schools. An increase in eCommunity school enrollment was linked to a decrease in traditional school students, which then resulted in funding problems for the traditional schools due to the fact that school funding in Ohio follows the student. As a result, despite their widespread involvement, currently, no new online schools can be created in Ohio (Ohio House Bill 66, 2005).

Another underlying belief that is fueling the virtual school movement is that online schools have the ability to supply a highly qualified teacher to a wider online audience. This belief is reflected in the NETP (2004) goal to “encourage the use of e-learning options to meet No Child Left Behind requirements for highly qualified teachers, supplemental services, and parental choice” (p. 42). For example, Louisiana’s Algebra I Online Project was created to address a shortage of qualified math teachers, especially in low-income areas of the state where algebra was being taught by uncertified math teachers. The online project, now in its fifth year, uses two teachers: an online teacher who is secondary mathematics certified and highly qualified under NCLB requirements and a face-to-face classroom teacher who is working toward certification. This is an innovative model that combines the expertise of an online instructor with that of a face-to-face facilitator, and creates a unique mentoring relationship between the two (O'Dwyer, Carey, & Kleiman, 2007).

Finally, the belief that participating in online education prepares students for the 21st century skills they will need in order to be successful, productive citizens in the current work force has also driven the virtual school movement. Because taking an online courses requires that the student know how to get online, access information and media from the Internet, and use email and discussion boards in order to communicate with one another, it can be an important activity that is preparing students for their future work environments. This is what prompted Michigan to pass the first legislation of its kind requiring that high school students have an “online learning experience” prior to their graduation ("Michigan first state to require online learning", 2006). Such a requirement is fueling the demand for online education, and other states are likely to enact similar policies in order to keep up with
providing a current, relevant education for 21st century students.

Conclusion

Through the examination of national and state level policy regarding online distance education, important implications for the future of this field can be gleaned. First, because the No Child Left Behind Act and the National Educational Technology Plan favor alternative methods of educating students, especially those that will prepare future generations for the global economy, the proliferation of online programs is likely to continue. In light of this fact, educational professionals, including stakeholders and policy makers, need to carefully analyze highly successful state-level policy and programs in order to inform future recommendations. Additionally, countries outside of the United States may also benefit from examining the policy issues affecting K-12 online distance education to inform their own legislative and decision making process regarding these programs. Further research is needed to determine best practices among virtual schools from all areas, especially concerning requirements for teacher preparation for online environments. While much work remains to be done in this area, several benefits stand to be gained from the successful implementation of online distance education programs, including the expansion of an effective mode of alternative education, as well as the development of future global citizens for the challenges of the 21st century.

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