Virtual High Schools

C. Michael Pedersen

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Farhad Saba, Ph. D., Instructor

Introduction

From the growing number of high school graduation requirements and lack of proper teacher technology training, to the increasing minimum class size requirements and a push from many school districts to implement wider range high school reform, the need for alternative solutions in traditional K-12 education is an immediate one. As the lead teacher for my high school's technology academy, I have run into many logistical issues that threaten the continued existence of this small learning community. The potential benefits of a virtual school (even a blended learning model) could potentially remove many of the barriers our academy faces. By investigating the historical, legislative and financial issues surrounding virtual high schools I hoped to find a viable option for the problems facing my students and fellow colleagues.

How the research study was conducted

The following is a brief overview of the order and rationale behind the sequence in which I conducted my research into this vast topic:

- I reviewed several virtual high school models in various states starting with Florida, Michigan, Kentucky and Illinois and then moving onto the first virtual school consortium, the Concord VHS. I also looked at different course models from full diploma programs, supplementary (AP, college Prep) classes, state sponsored programs, consortium models and commercial vendors options.

- Next, I reviewed what characteristics make virtual high schools attractive, such as the increased access opportunities, potentially higher quality and variety of classes. I also looked at what potential limiting factors existed such as the costs and funding sources, access issues, student readiness, teacher accreditation and training, technical support and stakeholder buy-in.

- Funding issues drove my investigation into the federal requirements for accreditation, funding and legislation. I reviewed the No Child Left Behind legislation and the 2004 National Educational Plan.

- With a solid basis from other states have done in the field of virtual education offerings, I turned my attention to investigating the options within California (UCCP, AP classes, Poway, and High Tech High) and found information on the pilot programs set up by the California Assembly Bill 294. This bill addresses legislation and funding specific to distance education within the state.

- I concluded my research by reading a book on virtual high school planning with a comprehensive series of chapters on the major aspects of implementing a virtual school. I also reviewed a study on California community college and what they have done for distance education planning.

Why Virtual Schools?

The question of why there is considerable local, state and even national interest in the virtual school option can be attributed to the increasingly limited education budgets, the unequal distribution of resources and the decrease in public school attendance (Cavalluzo, 2005). Virtual schools are often viewed as holding a potential solution to the equity of educational access issues (e.g. rural and low income communities) by offering a variety of advanced placement classes from a variety of teachers (Podell, 2005; Scherer 2005). This flexibility in scheduling and access for students and school districts is another attractive option afforded through distance education while also providing students with valuable computer skills in addition to the content of a course (Donlevy, 2003; Podell, 2005; Scherer, 2005).

There are critics who point to the negative aspects of virtual distance education such as the difficulty in aligning state standards (Cavalluzo, 2005), the potential lack of social contact and the lack of planning to address the needs of special education students (Donlevy, 2003). Additional concerns about virtual solutions focus on the increased time and money required to train teachers and the additional resources needed to maintain and troubleshoot technological issues for staff and students (Bender, 2004).

Structures and Examples

The three most common structures of virtual schools are statewide programs, consortium models and supplemental classes. Statewide programs exist in various areas like Illinois, Kentucky, Nevada, Michigan and Florida among others (Scherer, 2005). These statewide programs vary in size and scope but focus primarily within one state offering either full diplomas or supplemental classes. As of the summer of 2005, 21 statewide programs exist however these programs are not all inclusive, and are mostly supplemental; relying on local school districts to provide support to online students (Watson, Winograd & Kalmon, 2005).

The consortium model is a partnership between districts, regions and/or states to pool resources and offer a variety of courses within the individual regions. The supplemental programs are limited to offering tighter selection of classes most commonly Advanced Placement classes (Watson, et. al, 2005).

At the upper enrollment counts, these various programs serve between 33,000-35,000 students (i.e. Florida Virtual High School and Utah Electronic School) however most of these programs only serve between 1000-3000 students. Despite these size differences, most programs require that student register through their local physical schools that pay for the cost of registration and provide local support for online students.

Examined in the next section is an example of a statewide model (FVHS), and a consortium model (Concord VHS). A purely supplemental program in California (UCCP) will be reviewed in more detail in another section.

FVHS

While the structures of these state programs share many similarities with those of the consortium and supplemental programs, the funding model for Florida Virtual High School (FHVS) is rather unique. Both online and traditional institutions can receive funding from the state for one student who attends both programs, essentially double dipping from the same funding source (Watson, et. al, 2005). As the only State Department funded virtual program, FHVS has a full time staff with course offerings ranging from full diploma granting classes to purely AP supplemental programs. With nearly 75 classes available for free to any Florida student (Scherer, 2005), FHVS has begun selling it courses to out of state consortiums earning nearly $500,000 dollars in profit in 2004 (Wood, 2005). According to research done by Clark in 2000, minority participation in this virtual program has increased from 4% to nearly 17% in 2000 (Scherer, 2005).

The Concord VHS

Michael Moore (2003) feels that one of the major advantages of virtual education is the ability for students to pick and choose their classes and teachers from anywhere. The consortium model of the Concord Virtual High School (VHS) has been offering this type of access and variety to its students since 1996 (Scherer, 2005). Initially established using a $7.8-million federal grant, the current primary funding for the consortium is through a membership fee structure where schools pay $6000 for one class plus $4000 more if offering more than one class (Donlevy, 2003). With participating member schools in nearly 30 states each required to provide at least one course to the program, the variety of classes is substantial (Scherer, 2005; Watson, et. al., 2005). “Teachers are required to take a 26-week on line training course before they are considered eligible to teach in a virtual classroom” (Scherer, 2005, 21). With shared services and greater schedule flexibility, VHS is a prime example of a successful and self sustaining virtual schooling model (Donlevy, 2003).

Start Up and Sustainability Funding
Short term federal and state grants are commonly used to establish virtual high school programs yet many of the costs are left to the local school districts (Watson, et. al., 2005). The costs involved in establishing and maintaining a virtual high school can be quite high with single course development costs averaging $4,500 with additional costly training and technology maintenance issues (Cavalluzo, 2005). While some technology costs are funded by these state and federal startup grants based on economic need (Scherer, 2005) most of these costs are paid for by the local districts (Berge & Clark, 2005).

Sustainability after the initial grant funding lapses can be difficult (Wood, 2005). Most federal and state educational funding using the average daily attendance (ADA) calculation (the number of days attended by all students divided by the number of days taught) which is difficult to apply to a virtual high school model (Watson, et. al., 2005). Instituting course fees, consortium membership dues and selling course content are ways to address these economic issues (Cavalluzo, 2005). All but four states (Arkansas, Forida, Louisiana and Utah) charge course fees to their students (Watson, et. al., 2005). The course fee model is not without is problems. While some supplemental advanced placement programs can charge as much as $350 per class without noticeable impact on its enrollment (Freedman, 2005) when the state of Michigan began charging for its classes in 2004 their total enrollment dropped by 47% (Watson, et. al., 2005).

Legislation
The biggest educational legislation at the Federal level is the No Child Left Behind (NCLB) act passed in 2002. In a recent four year anniversary report posted on ed.gov called "*No Child Left Behind* Act Is Working", the following opening bullet point list explains the intended purpose behind this legislation:

> NCLB Benefits Children, Empowers Parents, Supports Teachers and Strengthens Schools.
> - All children are counted under NCLB, and schools are responsible for making sure every child is learning.
> - Parents are given unprecedented information and new options for their children, which may include free tutoring.
> - Teachers utilize assessment data and scientifically based teaching methods to improve classroom instruction.
> - Schools identified as in need of improvement receive extra help and resources to raise student achievement.

The National Education Plan for 2004 outlines the seven major areas reportedly necessary to improve public education: strengthen leadership, innovative budgeting, teacher training, support e-learning, encourage broadband usage for all students, move toward digital content, and integrate data systems (US Department Education, 2004). With such a heavy focus on technology and a call for distance education solutions, the federal legislative agenda appears to fit in line with virtual school solutions yet this is not without problems.

While some online standards exist regarding state testing and curriculum standards, almost no policies exist which articulate different requirements for online classes versus traditional classes (Watson, et. al., 2005). The NCLB legislation is criticized for the additional demands placed on educational programs without providing enough funding necessary to achievement its stated goals (Cavalluzo, 2005). In fact, the primary funding source for the seven goals of the 2004 National Education Plan has been eliminated from the 2007 presidential budget (Berge & Clark, 2005)

State of the State: California
The state of California has 6 million K-12 students and over 1.7 million high school students (Freedman, 2003). Although there is no statewide diploma granting virtual program, there are technological and virtual high school components in place. The largest example is the advanced placement program offered by the University of

California, College Preparation (UCCP). As of 2005, this advanced placement only, virtual program provides 30 classes with an enrollment of over 2000 students. Smaller charter schools and technology themed schools with ties to local business communities such as High Tech High in Scripps Ranch offer some distance education programs however their scope is significantly narrower than the UCCP program (US Department of Education, 2004).

As with most other states, California has little significant differential standards (neither accreditation nor funding models) for distance education versus traditional face to face instruction (Freedman, 2005). State and local funding of traditional high schools is based on ADA which is not easily adapted to virtual schools; however California Assembly Bill 294 was passed in 2003 to address this issue. Similar to the state funded program in Florida, this bill established a funding source for 40 supplemental virtual programs by providing ADA credit for institutions with students attending at least 180 minutes per day. According to this legislation, participating schools were required to track the time students and teachers spent online, teachers must be available online daily and the student-to-teacher ratio must be comparable to that of the traditional classroom setting. Taking a cue from the consortium model, the bill also allowed school districts to contract with one another to share resources. As of July 2005, the results of this pilot program are still being evaluated (Watson, et. al., 2005).

A report commissioned by the UCCP in 2003, investigating the practices and policies of virtual education in California recommended the establishment of an eLearning Trust responsible for overseeing and managing a statewide virtual education program to develop a set of common standards, incentive plans and a central technology operation (Freedman, 2003). Implementing a program of this size and nature would require a significant level of coordination and planning which so far has been lacking as evidenced by a study by Levy and Beaulieu in 2003. This research study looked at how 108 California community colleges in 71 districts were incorporating virtual education options into their curriculum and planning. By reviewing the planning documents, vision statements and web based content of these colleges the researchers found that only two colleges included distance education in their vision statements, only one referenced the need for online accreditation and less than 10% addressed any online student support services other than advising and assessment (Levy & Beaulieu, 2003).

Need for Planning

With the high costs involved with virtual schools and the logistical issues of aligning curriculum, standards and training, the need for planning is crucial (Levy & Beaulieu, 2004; Bender, Wood & Vredevoogd, 2004). A four category process to planning virtual schools was offered by Clark and Zane (2004, 207-214) which includes:

1. Assessing the institutional needs through a planning group responsible for identifying the student outcomes and curriculum requirements,
2. Building organizational knowledge and performing a costs/benefit analysis,
3. Developing a communication plan and considering structure models
4. Assessing the progress of the program and demonstrating success

Researchers such as Cavalluzo (2005) stress the importance of aligning the funding goals to ensure the sustainability of a virtual program. There are only two states currently requiring training beyond state credentialing for online teachers (Watson, et. al., 2005), and research points to the need for improved professional development and training (Podell & Randell, 2005; Wood, 2005).

Marketing

Traditionally the marketing done by virtual schools focused on their existing classes and not on other aspects of the school or program (Moore, 2003). A marketing plan involving both internal and external stakeholders, from students, teachers, business, state and community members, is necessary to increase the viability of a virtual school (Stefanski, 2005).

If the results of further studies into the time required for teaching virtual classes demonstrates a decreased amount of time need this could prove useful in recruiting and marketing to potential online teachers (Bender, et. al., 2004). The contents of an effective evaluation plan demonstrating an effective measure of success (e.g. AP scores, graduation rates, standardized test scores) could provide additional marketing value when seeking funding from investors or attracting students to the program (Blomeyer & Dawson, 2005). Although there are existing internal and external reviews of virtual institutions (Scherer, 2005), the only widely measured statistics are the passing rates of AP tests and little else (Watson, et. al., 2005). Similar to the UCCP's recommended eTrust, Moore (2005) suggests developing a versatile and responsive strategic alliance that would include "participants in a network (*who*) contribute technological and managerial expertise and capital and share the costs of developing new technologies"(3-4).

Summary

I feel we may be at a potential tipping point for traditional K-12 education. There are ample models of successful implementations of virtual education ranging from full service programs to supplemental only classes. The further study of these examples and sharing of best practices, combined with a more open minded approach to change, could serve as the catalyst for educational reform however more sustentative cost benefit research should be undertaken.

The promised benefits of virtual distance education seem to be significant; from addressing the equity in access issues and achievement gap problems to the potential for large scale cost savings. I believe a wide spread implementation of virtual schools could help address these issues however I don't think it will work for all people. The highly politicized nature of educational institutions, labor unions and lack of properly spent funding will only hamper the development of a more inclusive California statewide virtual education program. The tendency for policymakers to seek a one size fits all solution is scary and unrealistic goal. Perhaps a blending of online classes coupled with a traditional classroom environment would be a reasonable intermediate step that would mollify the concerns and deeply entrenched institutional resistance to change rampant through our public education system.

I am quite interested in seeing what the results are from the AB 294 pilot programs yet I leave this research project feeling more cynical over my individual ability to initiate change. I believe this quote from William Thomas, director of education technology at the Southern Regional Education Board illustrates my feelings best: "High-level political support and secure funding are critical components in keeping virtual schools vibrant …. The states have to take this on in order for it to a success; a teacher cannot get this started" (Wood, 2005, 34). Implementing a virtual high school solution may not be an impossible battle but it is one I'm not sure I'm ready to fight.

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