

THE SYNERGY FOR VIRTUAL LEARNING

“A Paradigm Shift for the Future”

By

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The Future Is Now

As the sun rises on the 21st Century, Americans continue to transition from an Industrial Age into an Information Age, but at a faster rate than ever before. To ensure a brighter future for students, educators are examining their traditional practices in an effort to expand beyond the status quo and kindle a spirit that unites all the stakeholders into a well-designed virtual learning school. In the near future, school-based virtual learning programs will put more diverse learning resources at the fingertips of students, while simultaneously connecting them with an increasingly global education community. Moreover, because of the mobility characterized by virtual learning, these programs have the potential to become embedded in many everyday learning activities. This diverse potential will help reshape our understanding of the time and place for learning in the daily lives of our students. By harnessing the power of virtual learning, educators will transform schooling in many powerful ways. For students and teachers, virtual learning will offer access to a broad array of content and explanation, to interactive self-paced learning tools, to a limitless and diverse population of learners, and to distance learning opportunities...creating in effect a classroom without walls.

The net effect of virtual learning programs will be a genuine transformation in the **way** children learn as well as **when** they learn and **why** they learn. By bringing virtual learning services online, it will be possible for parents to actively support their children's education through their participation from home. Students will benefit by being able to access help whenever and wherever it is needed.

Additionally, innovations in newly designed architecture for school interoperability will provide school employees and students with access to high-speed, real-time assessment viewers, online testing capabilities, and expanded distance learning opportunities. These new innovations in technology will allow teachers to retrieve real-time student information through hand-held PC's and administrators to conduct teacher performance evaluations using the newly developed "Teacher Appraisal System." Parents and students will be provided with real-time performances of student learning, and teachers viewing the portals of student performance can then make timely, data-driven learning recommendations and adjustments. No longer will teachers have to search the file cabinets in order to assess student learning; no longer will students and parents have to wait for assessments of learning to assimilate. Real-time information gathering will be the result of pure information retrieval.

Articulating the Future

To succeed in virtual education, reform schools must be driven by forward-thinking, technology-attuned visionaries who can articulate the optimal characteristics needed for technology-supported education reform. Focused on preparing students to live, learn, and work in the 21st Century, the visionaries of virtual learning must cultivate enriched technological environments for learning, environments where teachers are given more opportunities to work together, so as to establish the confidence, support, and trust needed for desired change.

A virtual learning school cannot exist without a **shared vision**. Without a **focus on** and **commitment to** a vision/goal that the stakeholders themselves truly want to achieve, the forces protecting the status quo can and usually do overwhelm the forces supporting meaningful change. With shared vision, the stakeholders are more likely to expose their accustomed ways of thinking and redefine them in more cooperative and constructive terms, thereby identifying personal and organizational shortcomings. Thus, **developing a collective vision for the future**

of the virtual learning school is the first strategy to a systematic design for a successful paradigm shift into the future. At its simplest level, a shared vision is the answer to the question, "What do we want to create?" and when that question is answered by the stakeholders, a sense of community will permeate the school and give purpose and meaning to diverse activities. Shared vision is vital for the virtual learning school because it provides the focus and energy for learning. However, educational visionaries must first understand the strategies involved in enabling stakeholders to gain confidence in the technological advances to virtual learning.

To meet the challenge of mandated education reform issues, schools will need to realign their present visions by establishing new priorities linked to the new standards. This does not mean that schools must change their beliefs; instead, they must examine how their present beliefs support the challenges of required change. If schools are to be viewed as virtual learning schools, then they must engage in strategic exploration so that the school's stakeholders will be provided the opportunity to formulate a common vision for the future that will then guide them on their journey.

Making the Paradigm Shift

Making this paradigm shift from the Industrial Age to the Information Age during a time of uncertainty finds many a scholar not sure just how virtual learning will serve in the improvement of teaching and learning. For more than two centuries, schools have used printed paper materials, such as textbooks, to educate students. With the development of new technologies, virtual learning resources seem limitless. Encyclopedias, dictionaries and other reference guides can be stored on a single CD-Rom. Using interactive video conferencing, students can visit historic museums from across the globe, without ever leaving their classrooms. They can position observatory telescopes to view a distant star or virtually visit other classrooms within their

school, state, country, or world. Virtual learning will open new doors for teaching as well as learning.

In the near future, every child in an instructional setting will have a digitally produced “Personal Teaching Assistant” designed to respond to the instructional needs of an individual child. Entire instructional rooms will be intelligent, in the sense that they will be equipped with a multiplicity of intuitive, interfaced technologies that are responsive to children’s gestures, touches, and voices. Computer technologies will recognize and transform spoken words into any symbol system the communicator wishes to apply in order to explain and illustrate ideas/concepts. For instance, the geography teacher will never need another pull-down map, since the Internet can access real-time satellite pictures from across the globe. All teachers will have the tools necessary to develop online learning units to promote improved student learning. Whatever the need, virtual learning provides a plethora of new teaching opportunities for educators: multi-media presentations, computers, telecommunication resources, and web-based lessons and units. The student skills needed in today’s virtual learning classroom are the very same skills students need in order to access, manage, apply, and evaluate the ever-growing magnitude of information in today’s world. Schools that are not presently tapping into these resources soon will find themselves left behind in the quest to improve the learning curve.

In order for schools to reach their vision for implementing school-based, technology learning programs, education stakeholders must be empowered to design the pathways whereby they travel purposely from the present into the future. In many school organizations, intoxicating rhetoric about visions and noble intentions usually abounds, but without a strategy for assessing real-time information, nothing will be realized. Achieving success will require more than rhetoric; it will require the capacity to see through the portals of information and find a focus, a

compelling image of a desired state of affairs - the kind of image that meets the needs of individual learners and induces a commitment to their education.

Facilitating Positive Change

Today, more than ever before, schools are faced with the idea that in order to improve instruction, they will need to create newer, faster, and better systems for assessing their strengths and weaknesses. Educational leaders are now responsible for gathering an array of measures, including formative academic assessments, attendance rates, suspension rates, public opinion ratings, and school climate surveys. Principals and teachers must determine how they will assess progress and plan instruction that expands beyond the data gathered through state-standardized testing. New national and state school-accountability reports are now including such indicators as attendance rates, suspension rates, at-risk student performance rates, and student and community perceptions of school safety. To accomplish the growing demand on data retrieval, school leaders will need to rethink their approaches to the gathering of accountability data and to how they use that data for the improvement of student learning. The day has arrived when school leaders need to have the skills for making multi-measure data useful in the facilitation of change. To facilitate positive changes, school leaders need a number of data analysis tools for tracking the school-improvement process. Such data analysis tools include monitoring curriculum delivery, measuring student performances through content analysis, tracking at-risk student performance, and providing real-time student assessment information.

In the near future, virtual learning schools will generate student information that can be stored in an Academic Data Warehouse (ADW), using SIF/ZIS architecture whereby individual districts will be able to identify content standards. The compiled data will provide teachers with the content analysis reports necessary for aligning specific learning standards in a priority order. These content-analysis reports, generated through the Academic Data Warehouse, will provide

the necessary information for each teacher within a grade level or department to select and prioritize content based on the prescriptive needs of a group of students as identified through the school's standardized assessment instrument.

Data-Driven Decisions

Assessment-Based School Improvements involves the procedural development of real-time benchmark assessment strategies designed to measure and analyze real-time cumulative student growth. This process will be achieved by using software packages currently available on all computers. One example of a school software program that can be used to develop real-time tracking of curriculum delivery is the utilization of a Student Response System. The program transfers information obtained from individual teacher assessments to a district-level, data-collection server in order to map curriculum progression. Data gained from this type of assessment system would give teachers real-time benchmarks by highlighting the academic skills requiring further reinforcement, prior to year-end assessments.

This example reiterates two terribly important reasons for stressing assessment-based school improvement through positioning. The first has to do with educational integrity. A virtual learning school can be compared to a healthy individual; in fact, it is analogous to a healthy identity. A school possesses a healthy structure when it has a clear sense of what it is and what it is to do. So, educational integrity involves choosing a direction and staying with it. However, in order for a school to have integrity, it must have an identity, that is, a sense of who it is and what it is to do. The second reason behind the significance of positioning has to do with staying the course or constancy. Effective leadership takes risks; it innovates, challenges, and changes the school's culture. Innovation - any new idea - by definition will not be accepted at first, no matter how sensational the idea may be. If everyone embraced the innovation, it would be difficult to take it seriously - as an innovation. Innovation causes resistance to stiffen, defense to set in,

opposition to form. It takes repeated attempts, endless demonstrations, and courageous patience before innovation can be accepted and internalized by any education community.

Virtual learning schools are founded on a different set of standards than those schools founded on traditional practices. The virtual learning schools are places where the professional educators, students, parents and community are all engaged in active learning based upon self-improvement goals. There are many factors that contribute to the virtual learning school, but one of the major factors is the development of a successful technology plan that inspires people to share their ideas, act on their ideas, and finally develop their ideas into a technology paradigm shift for the future.

Planning for the Future

Technology planning can be the catalyst for enhancing a school's vision for the future, strengthening its learning goals, and helping it to realize its mission. To be deemed successful, the technology planning process itself must weigh the relationship between technology investments and student growth. Technology planning requires that schools be willing to make substantial investments in time, resources, and support.

Viewing technology planning as a process instead of an event requires two paradigm shifts in thinking and development. The first paradigm shift occurs when the stakeholders of the district realize the planning process will result in more than simply purchasing technology. Ten years ago, technology planning focused primarily on acquiring computers and was simply a process of deciding what type of computers to purchase, how many, and where to place them. Today, new technology opportunities require stakeholders to rethink the plausibility of technology in the classroom. The planning process must address how technology will be used by students and staff, not just what equipment it will involve.

The second paradigm shift occurs when the technology planning process integrates the technology into the curriculum. This paradigm shift allows the planning process to have an impact on student learning. For the technology planning efforts to have maximum effect on student learning, the process must be coupled with curriculum development. Since the goal of technology planning should be improved student learning, this process begets questions that only classroom teachers can answer. Therefore, a collaborative effort between technology professionals and teachers will produce the most comprehensive and successful technology plan. Without this investment of time and effort, planning for technology will have little or no impact on school improvement.

Finally, the key to increasing student performance begins by providing formal teacher training. Through professional development, teachers will better understand the data and realize ways to apply the assessment strategies to instruction. When teachers understand the criteria by which measurement will occur, the approach to the school improvement process in regards to student learning will become more effective.

In closing, whether or not we are ready for the paradigm shift that virtual education will most assuredly precipitate, the societal forces for integrating virtual learning into the schools and global marketplace are upon us. **It is up to the visionaries of the future to bring together** the interaction of the traditional classrooms of today that lay so far apart but so close together so that when bridged with technology the effect will be greater than the sum of their individual effects. Between the present and the near future, computers stand to foster students' development of both traditional and digital learning; however, schools of the future have many questions to answer and many cautions to consider as educators formulate a vision for best virtual practices. To accomplish true synergy of the merge of technology into the traditional classroom settings visionaries must understand the elements of leadership within the dynamics of the educational setting and become pivotal forces in affecting the learning outcomes of the school.