

DISTANCE LEARNERS AS FULL- TIME PUPILS

**House Bill 4719 (Substitute H-2)
First Analysis (6-25-03)**

**Sponsor: Rep. Tom Casperson
Committee: Education**

THE APPARENT PROBLEM:

Many of the advances in communication speed—and in particular, networked computing—that ushered in the ‘information age’ push up against the rituals and institutional structures that we commonly think of as ‘the place called school’. Some believe these advances will transform schooling, while others note that schools have long stood unchanged despite widespread societal innovations, generally because there are not many shortcuts through the tough intellectual work on the way to deep disciplinary knowledge. However, both the enthusiasts for online learning and the more skeptical, acknowledge a proliferation of e-learning opportunities, many of them profit-making ventures, made possible because students have access to computers, and can communicate on e-mail via the Internet with their teachers and each other.

At the heart of on-line learning is electronic dialogue. In his recent book *A Classroom of One*, Gene Maeroff, director of the education media institute at Columbia Teachers College, notes that electronic dialogue comes in two forms—synchronous, or asynchronous. Many educators favor the first kind of dialogue: synchronous or virtual face-to-face interaction that allows teachers and learners, as well as students and their fellow students, to form learning communities in which they communicate regularly within electronic discussion groups (either formal or informal), that are in some ways similar to real-time learning conversations. In contrast, asynchronous discussions are those in which a student works alone, outside a network of fellow learners (more akin to work in a ‘classroom of one’), and contributes at moments of his or her own choosing, sometimes to pose a question to a ‘help-desk’, sometimes to offer a more considered response in a chat room.

Because the heart of on-line learning is electronic dialogue about ideas, e-learning requires a self-disciplined and highly motivated learner. Consequently, e-learning opportunities are most readily available to older students—generally, those

who seek professional and career-related courses, or more convenient graduate or undergraduate university coursework, and more recently, high school coursework that is not available in their ‘bricks and mortar’ schools. These kinds of courses abound. A white-paper prepared for the American Association of Colleges of Teacher Education (AACTE) in 2001 estimated that more than 650 for-profit, degree-granting institutions and more than 2,000 virtual companies and universities were offering education courses.

One commercial company, Apex Learning, started in 1997 by Paul Allen, a cofounder of Microsoft, had contracts across the country by 2001 to help add virtual classrooms to schools. By 2002, Apex reached 90,000 students at 2,100 high schools in 30 states. Apex created products such as on-line Advanced Placement courses and foreign language courses, the kind of offerings that require teaching expertise not readily available in some school districts. Recently Apex joined with the University of Washington to develop ten new online high school courses—in chemistry, intermediate algebra, pre-calculus, introduction to American literature, U.S. history, earth science, geography, sociology, psychology, and study of the Internet. Apex’s investors include Vulcan Ventures, Warburg Pincus, Edison Schools, Maveron LLC, Kaplan Ventures, and Michigan State University.

Michigan is one of a few states that has created its own Virtual University and High School, a program modeled on the U.S. Department of Education Virtual High School. (See *BACKGROUND INFORMATION*, “Federal Virtual High School,” below.) Begun in 1998, the Michigan Virtual University was created to expand the development of learning technologies for Michigan’s schools, colleges, universities, businesses, and corporations. It was organized as a nonpartisan nonprofit corporation and is governed by a 26-member board of directors. MVU serves as a catalyst to expand the

use of electronic learning technologies and works cooperatively with Michigan's K-12, higher education and non-credit corporate course providers to make e-learning offerings available to the Michigan public.

Two years after MVU was founded, an act of the legislature expanded it to include a high school. The Michigan Virtual High School (MVHS) creates statewide instructional models using interactive multi-media tools to significantly expand curricular offerings for high schools across the state. Over 215 high schools, enrolling approximately 170,000 high school age students in urban, suburban, and rural school districts are currently participating in one or more of the MVHS courses and online tools. Some services are free, while others are offered with a membership fee. For 2003, the per-building cost for a high school to participate ranges from \$6,500 for Class A schools, to \$2,200 for Class D schools. MVHS favors synchronous electronic dialogues, allowing ample and multiple interactions between teachers and learners, as well as among the learners themselves.

Despite the proliferation of online education at the secondary (and increasingly at the elementary) school level, many observers wonder whether the approach is appropriate for these age groups, given that independent learning is generally reserved for adults. And just as it is thought that online learning is appropriate for only some students, there are those that believe that online learning lends itself only to certain kinds of courses: those built around gaining a command of facts and procedures via skill-training can be taught more easily online than disciplines that seek to convey deep understanding of complex ideas through social interaction. Researchers know that high quality and adventuresome teaching, in which communities of learners struggle to understand rich content, fosters higher order thinking skills and the construction of knowledge. Knowledge is very different from information, and education is a very different enterprise than training.

Although many higher order learners and teachers may fall flat online, e-learning does offer intriguing possibilities for educators to serve those students who now are least well-served by schools—students with special needs who cannot fit their lives into the schedule of the traditional school, yet who wish to take courses, earn a diploma, and enter the world of work better prepared for a life of economic security. As Maeroff notes, generally, the more students differ from the traditional norm, the less responsive schools tend to be. Online learning allows schools to pay

better attention to these groups of students, and to help them. Paying careful attention to each potential student is of particular interest to high schools with declining enrollments and shrinking state aid budgets.

For example, the Pine River Area Schools (located in Osceola, Lake, and Wexford Counties) recently completed a three-year pilot program in which they served 35 at-risk students whose residences were scattered throughout the counties. The school district used an asynchronous approach to the electronic dialogue, in which students mostly worked alone. Partnering with a for-profit distance learning company called Education 20/20, the school district paid \$3,600 of their per pupil capitation grant of \$6,700 for a program of instruction that allows high school students to learn at home. The program provides each student with a computer, instructional software, a teacher-certified home visitor two hours each week, textbooks, and a tutorial help desk available to the student by telephone (whose line is installed free, together with an Internet connection, if the student is poor).

In this asynchronous approach, a student's transcript is given to the vendor, Education 20/20, and it provides the classes a student needs to continue his academic program via software (a compressed CD, rather like a videotape, of a teacher offering a grade-appropriate unit) that is self-paced. The teacher is not 'live' or a member of the student's high school faculty. Rather, the software can be used and reviewed as often as a student likes. Periodically, a test appears that a student must pass with at least 60 percent correct answers, in order to proceed with the course. If the student fails and the test must be retaken, a new test is randomly compiled from a dataset of available test items, and the student gets a second (or third or fourth) chance. Evaluations of the three-year pilot program at Pine River demonstrate that the online learning program had 82-83 percent success—that is, its students graduated from high school, completed a high school equivalency degree, or reenrolled in the public school.

During the Pine River pilot, students' time-on-task—what used to be called 'seat time' by some educators—was monitored by 'web-cam', a camera embedded in the software that takes a snapshot of the learner periodically while he or she is working at the computer monitor, in order to ensure the learner's identity. [The technology can also identify the learner through a retinal scan, or by a finger-print sensitive touch-pad embedded in the keyboard, although neither feature was used in the Pine River pilot study.] The former school superintendent noted

that these devices allow distant school personnel to know the student's activity "every second, minute, hour, and day," and thus comply with the minimum number of instructional hours that are required for state aid reimbursement.

Due to the success of the Pine River program, the Manton Consolidated School District (serving students in Wexford, Missaukee, and a small portion of Grand Traverse Counties) has set up a similar program, now in its second year. This school year the program served 22 at-risk students, and next year it is expected to serve 60.

In order to give more school districts an incentive to serve student who are now underserved, and to help some districts slow or reverse their declining enrollments and stabilize their budgets, legislation has been introduced that would regard online learners as full-time students for the purpose of school aid reimbursement, if their e-learning programs met certain conditions.

THE CONTENT OF THE BILL:

House Bill 4719 would amend the School Aid Act to specify that a student receiving all or a majority of his or her instruction through a distance learning program operated by a school district or public school academy (more customarily called a charter school) could be counted in membership as a full-time pupil in that district or charter school, if all of the following conditions were met:

(i) the student was unable to attend school on a regular basis due to one or more of the following:

*the student had a documented health condition affecting his or her ability to attend school on a regular basis;

*the student had been expelled from school and was not counted in membership under other subdivisions of the act;

*the student was pregnant or was caring for his or her newborn child; or,

*another reason determined by the board of the district or the charter school to be a valid reason for not attending school on a regular basis.

(ii) The amount and content of the instruction the student was receiving through the distance learning program was substantially equivalent to the amount

and content of instruction he or she would receive if attending school in the district or at the charter school.

(iii) The district or charter school could track and document the days and hours of distance learning instruction that was provided to the student, and could verify the student's identity during participation in the distance learning instruction.

(iv) The number of students the district or charter school counted in membership under this section did not exceed five percent of the district's or charter school's total membership, or 25 students, whichever was greater.

The bill also would delete a provision that prohibits the use of an alternate school aid calculation formula in Upper Peninsula school districts. That formula allows the Department of Education to take into account the number of students per square mile in two contiguous school districts, if only one educates students in grades 9 to 12, and if one or both of the affected districts request the department to use the modified formula. [The regular formula enables a district to select a three-year average membership count, or the actual year membership count, whichever is greater.]

MCL 388.1606

BACKGROUND INFORMATION:

The federal government's Virtual High School. The U.S. Virtual High School (VHS) served as a model for the virtual high schools in Michigan, Kentucky, and Illinois. The federal sponsored Virtual High School was a five-year pilot project undertaken by the U. S. Department of Education with a Technology Innovation Challenge Grant. By 2001 when the grant period ended, the Virtual High School had enrolled more than 2,000 students in 200 high schools in 26 states in 125 full-semester e-courses. Its students had to attend regular high schools, where they took most of their courses in person. Students' home high schools awarded academic credits for the online courses, and there was no provision for students to take all of their courses solely online. The federal government intended that the program enhance regular high schools, not replace them.

In most cases, students enrolled in VHS courses that were not available in their high schools' classroom-based programs. VHS allows a high school to enrich and enlarge its curricular offering at a minimal cost. Schools could avoid having to hire additional

teachers or build extra classrooms for new courses. During the 2000-2001 academic year, VHS offered courses ranging from Advanced Placement in chemistry and statistics to microbiology, music composition, and southern writers. Drawing upon the enrollment of the entire VHS collaboration, a high school no longer had to worry about a lack of critical mass for a particular course. Almost half of the schools in the VHS collaboration had fewer than 800 students.

The Virtual High School, which depended on teachers in the participating real high schools to design and teach the courses, also demonstrated how professional development fits into the expansion of online learning. A vital component of the program was the training that regular high school faculty around the country received to qualify them as teachers of virtual courses. Teachers had to successfully complete a graduate level, online professional development course given by VHS; they could take a 26-week course to design and prepare their own network-based course, or a 15-week course to learn to teach an existing course designed by someone else. After the DOE pilot project ended in 2001, the Virtual High School incorporated as a not-for-profit corporation so that it could continue to offer courses. No longer supported by federal funds, VHS has set-out to achieve self-sufficiency by charging schools an annual membership fee of \$6,000. By the fall of 2002, 150 schools were members of the VHS cooperative, which enrolled some 2,000 students in about 120 course sections.

Michigan Virtual High School. More information is available about the Michigan Virtual University and High School at their website. Visit <http://www.mivu.org>

National Association of State Boards of Education (NASBE) Report. In 2001 NASBE issued a report on e-learning. The report lauds e-learning but warns that special interests are lobbying state legislatures to move immediately ahead with hastily conceived e-learning initiatives. The report is available at http://www.nasbe.org/Educational_Issues/E_Learning.html

FISCAL IMPLICATIONS:

The House Fiscal Agency notes that the bill would have an indeterminate increase in costs to the state. The state does not currently collect the number of students in distance learning programs, so the total number of such pupils is unknown. It is also unknown how many districts would operate a

distance learning program. For every student that is eligible under the bill, a district would receive a foundation allowance. The average foundation allowance per pupil in the state is \$7,034. (6-6-03)

ARGUMENTS:

For:

Educational e-learning programs are at the cutting edge of technology innovation, with the power to transform our understanding of 'the place called school', and to vastly expand our idea of educational opportunity. As online learning takes hold, life-long learning will be possible for adults and youngsters, alike, and we will enter an era of great intellectual promise—of virtual 'learning without limits'. For those at the stage of their young lives when they study in traditional school classrooms, e-learning offers the chance to enhance their academic programs. Already, hundreds of electronic courses are available—some of very high quality. For example, the Michigan Virtual High School (MVHS) creates statewide instructional models using interactive multi-media tools to significantly expand curricular offerings for high schools across the state. Over 215 high schools, enrolling approximately 170,000 high school age students in urban, suburban, and rural school districts are currently participating in one or more of the MVHS courses and online tools. The courses at MVHS are developed 'from scratch' by Michigan teachers, and they are mapped to the Michigan Curriculum Framework's content benchmarks and standards.

To guide school leaders as they make these and other online program decisions, the National Association of State Boards of Education recently issued a series of e-learning reports (See *BACKGROUND INFORMATION* above), to provide a quality decision framework, and warn public schools away from inadequate programs.

With this bill, the Michigan Department of Education can authorize payment to schools that are online program pioneers, offering e-learning opportunities throughout their communities.

For:

This bill will ensure that school districts can collect state aid payments when they offer online learning programs to students who are at risk of dropping-out or staying out of school for an extended period. Students who would be eligible for the programs would include those with documented health conditions, troubled youth who had been expelled, young women who were pregnant or caring for

newborn children, and students who had other valid reasons for not attending school, as determined by the members of the school board (or a charter school's board of directors). Recently a school district was denied state aid payment for a young woman who wished to complete a semester of high school at home, as part of an online learning program, while she cared for her mother who was suffering from terminal cancer. Under this bill, the student could be counted in pupil membership, and the district could claim her capitation payment and collect nearly \$7,000 in state aid.

Against:

This legislation should be amended to require that e-learning programs include teacher contact time for students. It is not at all clear that self-paced online learning programs can provide students with serious and stimulating academic content, absent their teachers. Students need knowledgeable teachers in order to grapple with tough problems.

Just as electronic dialogue is at the heart of on-line learning programs, the quality of teaching is at the heart of all learning dialogues. Neither teacher quality nor the quality of the instruction offered to the student can be measured merely by tracking a student's 'seat time' or 'time on task'. Instead, instructional quality is a function of the interaction between the teacher and student, and the students with each other—their intellectual relationships centered upon assertions and conjectures—as they undertake serious academic work.

For example, to construct high order knowledge and skills, a vital learning community, guided by its teachers, might consider: Why are $\frac{3}{5}$ and $\frac{18}{30}$ equivalent fractions? What does $\frac{1}{2}$ multiplied by $\frac{1}{2}$ mean? When and how does Elizabeth Bishop effectively employ and then revise a villanelle? Why do Richard Wright and James Baldwin disagree about the nature of blackness? Why does a change in temperature of a few degrees in an ecosystem produce a large change in the plant or animal life in that system?

It is difficult to imagine how a self-paced program that operates without ample teacher contact could enable a student to work through questions such as these.

Against:

In order to receive state aid for students enrolled in an e-learning program, the bill would require that a "district (or charter school) track and document the

days and hours of distance learning instruction that was provided to the student, and verify the student's identity during participation in the distance learning instruction." The way that some programs verify a student's identity during participation in the program is through the use of bio-metric imaging—using web-cam technology that takes a photo of the student while he or she works before the computer monitor, using retinal scanning technology that identifies the person's retina, or using touch-pad finger print recognition technology that records the identity of the user at the computer's keyboard. These technologies offer a high level of surveillance—far higher than is necessary to ensure high quality student work, and for many students, sufficiently high to impair good teaching and learning relationships between them and their teachers.

The legislation should be amended in two ways. First, the bill should be amended to allow other verification measures that ensure students are engaged with their work, including, for example, achievement of academic outcomes, and attainment of educational goals. Second, some careful thought should be given, too, to an amendment that would protect students' privacy, offering them the opportunity to opt out of high surveillance programs, yet continue to have access to other online programs.

POSITIONS:

The Michigan Education Association supports the bill. (6-23-03)

The Manton Consolidated Schools supports the bill. (6-23-03)

Dearborn Schools supports the bill. (6-23-03)

The Michigan Virtual University and High School supports the bill with an amendment that programs would not be required to use bio-metric imaging equipment to track the 'seat time' of learners. (6-23-03)

The Michigan Department of Education testified in opposition to the bill. (6-18-03)

Analyst: J. Hunault

■ This analysis was prepared by nonpartisan House staff for use by House members in their deliberations, and does not constitute an official statement of legislative intent.