



Thursday, August 28, 2014 10:00 a.m.
House Room C, General Assembly Building

◆ Call to Order; Welcome; Introductions

The Education and Technology Advisory Committee of the Joint Commission on Technology and Science met on August 28, 2014. The Chairman, Delegate Byron, was present, as well as Senators Martin and Miller.

◆ Use of Technology by Henry County Public Schools (via videoconference)

Dr. Jared A. Cotton, Superintendent of Henry County Public Schools, and Janet Copenaver, Director of Technology and Innovation for Henry County Public Schools, joined the Advisory Committee via videoconference to provide an overview of use of technology in Henry County Public Schools. A copy of their presentation is available on the JCOTS website.

The material drew attention to both unemployment and underemployment in the region due to the loss of manufacturing jobs. The presenters explained that advanced manufacturing jobs required employees with 21st century skills.

The presentation highlighted that technology was a game changer in education to develop critical thinking, communication, collaboration, and creativity. Henry County's iPad initiative, which began with stimulus money, is now in its 5th year. Now there is a one-to-one iPad ratio for grades 3-8. One high school is also adopting a "bring your own technology" policy. In a survey of parents, 70% said their children are more likely to complete homework on iPads. There was also some negative feedback and some parents complained that technology ruins "traditional" education.

Delegate Byron asked a question regarding the iPad initiative and connectivity at home. The presenters responded that the iPads were preloaded with textbooks while at school, and that internet access at home was not necessary for its students. However, in Henry County and the City of Martinsville, there exist opportunities in homes for low cost internet access (\$9.95 per month). In addition, 79% of parents say they have internet access at home.

The presenters also discussed the financial agreement reached with parents regarding financial responsibility for the iPads. Parents are invited to share in the costs of insurance. Breakage, loss, and theft of the devices has been negligible.

Senator Miller asked if the district has been able to measure the impact of technology on students' learning. The presenters explained that it is difficult to engage in such an analysis, but that test scores did indeed go up. Although SOL scores did increase, it is difficult to say whether the rise is due to technology. Dr. Cotton stated the iPads alone do not improve education. The technology is part of an instructional program, and are tools to supplement education. He did note that the devices do improve motivation.

Delegate Byron asked if all textbooks are downloaded and if more and more are available offsite. The presenters responded that as more schools use mobile devices, it will push textbook companies to make more available electronically.

Delegate Byron asked about teachers how teachers have adapted. The presenters responded by pointed out that the teachers used the iPads first, before the students, which worked well.

Senator Martin commended the both presenters stating that he was very impressed with what was being done and that other districts could learn from this example.

◆ Statewide Broadband Pricing Project

Dr. Tammy McGraw, Director of Digital Innovations & Outreach for the Virginia Department of Education, updated the advisory committee regarding broadband access improvement across the Commonwealth which has been identified as an urgent need. A copy of her presentation is available on the JCOTS website.

In today's learning environment, virtual course requirements, tech-enhanced assessment, table initiatives, etc.all require broadband access.

Virginia and Arkansas are the first two states participating with Education Superhighway, a non-profit entity based out of San Francisco. Education Superhighway is funded through various foundations, and work is being done at no cost to the state. It was emphasized that Virginia has strong leadership in technology, but that preliminary data indicates that schools are paying too much for access and connectivity, and that 70% of schools have internet access and bandwidth below digital learning readiness (100+ kbps / student).

Part of goal of the project is understanding what is driving the cost of broadband access, to identify things to help solve problem. The analysis will look for steps that have the greatest benefit with the smallest costs.

As of the morning of the presentations, all but seven schools had provided data to Education Superhighway. The requested data is related to item 21 on e-rate data collection. The data is entered through an online portal that is designed to be very user friendly.

The Department of Education hopes to have a draft report from the data completed in October. Strategy development will take more time to develop. The initial data review will be used to identify schools with a high-need for connectivity. The analysis can also help develop recommendations as to what the ideal role is for the state in helping provide connectivity, and can help identify specific strategies to address a particular community's needs, whether the needs are related to access, affordability, or both.

Delegate Byron asked staff to follow-up with the study, and possibly arrange for a follow-up presentation to JCOTS.

◆ Virginia's Virtual Governor's Schools

Dr. Donna Poland, a Specialist of Gifted Education and Governor's Schools at the Virginia Department of Education, provided the advisory committee with an overview of Virginia's virtual Governor's School programs. Generally, there are three types of Governor's Schools in the Commonwealth -- academic year schools, regional schools, and summer residential programs. Regional schools are the focus of this presentation.

Dr. Poland said that technology comes into play with "community of learning" schools. No school is 100% virtual, but has virtual components to bring students together. There are a few different ways that this is accomplished. A virtual studio allows students to access instruction on their own time. An example is a research class in Prince William, where students look at modules online ahead of actual class time, and then use the time in the classroom for actual research. Digitized classrooms allow students to take core classes at their local schools, and then use technology to collaborate with students from other schools. Students can also use tangible computing in the classroom, and use information platforms. For example, at the Central Virginia Governor's School, students use Skype to connect with the Astronomy Department at the University of Virginia.

Delegate Byron asked how the General Assembly can help Governor's Schools. Dr. Poland answered that the Governor's Schools are leaders at using technology in the classroom, and that the state needs to find ways to showcase this on a larger scale. She also said that broadband access is a big issue with these programs, and that it can be a large cost for a school with a very tight budget.

Senator Miller asked if it was difficult to convince experienced teachers to integrate technology into the classroom. Dr. Poland said that the Governor's School teachers were very experienced, and many have advanced degrees in specialized areas, so they have technology background. The real issue is how to integrate the technology into the classroom, such as deciding what to do with the iPad once the student has it.

◆ Public Comment

No public comment was provided.

◆ Adjournment

The meeting was adjourned.