

# Virtual Field Experience – Observing Virtual Teaching at a Distance: A Pilot Study

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**Abstract:** Virtual schooling, or the practice of offering K-12 courses via distance technologies, has rapidly increased in popularity since its beginning in 1994. Although effective interaction with and support for students in these environments requires a unique set of skills and experiences, teacher education programs rarely include teaching and facilitation competencies for virtual school education. Even less has been offered in terms of virtual field experience. A pilot virtual field experience enabled preservice teachers to observe how a high school science course was taught by an exemplary teacher using blended technologies.

## Introduction

Virtual schooling (VS) for K-12 students, an innovation that began just after the Internet went graphic with Web browsers in 1994, has steadily increased in popularity (Clark, 2001; NFES, 2006; Roblyer, 2003; Setzer, Lewis, & Green, 2005; Watson & Ryan, 2007; Zucker & Kozma, 2003). Today, 42 states offer online learning programs including supplemental and full-time programs (Watson, 2007). Additionally, steps to make online learning experience as a prerequisite for high school graduation by the state of Michigan may eventually be a model for education systems in other states.

The VS movement seems to be redefining what it means to be “in school” (Roblyer, 2008, in press), and has also placed new requirements on teachers entering these 21<sup>st</sup> century environments. Teacher education programs, however, have a gap, leaving most new educators unprepared for the new competencies required to teach in electronic classrooms. Since virtual school experiences over the past decade have shown that effective virtual teachers have qualities and skills that often set them apart from traditional teachers, it would be foolish to assume that “people who have never taught in this medium can jump in and teach a class ... A good classroom teacher is not necessarily a good online teacher” (Wood, 2005: 36). Davis & Rose (2007: 8) reported that common misconceptions

about VS that included the expectations of virtual schools that “any regular classroom teacher... [could be] qualified to teach online” and “newly qualified teachers who learn about virtual schooling in their preservice programs will be ready to teach online when they graduate”. Without deliberate exposure and virtual field experience, preservice teachers cannot be expected to transfer their theoretical knowledge into practice.

Many “virtual schools and other organizations that offer online courses and other forms of distance education to K-12 students are eagerly seeking to recruit new staff to match the demand for high quality VS in many U.S. states” (Davis & Rose, 2007: 7). A consortium of teacher education programs have collaborated to improve their teacher education programs to better prepare their preservice teachers for this new form of education. This paper reports a pilot virtual field experience designed to expand preservice teachers’ knowledge, experience, and preparation for VS, which is also relevant for the induction of new teachers and VS site facilitators in VS.

## **Pilot Virtual Field Experience**

*Teacher Education Goes into Virtual Schooling (TEGIVS)*, a three-year project led by Iowa State University's (ISU) *Center for Technology in Learning and Teaching* and supported by the U. S. Department of Education's Fund for Improvement of Postsecondary Education (FIPSE). In addition to ISU, project partners include the University of Florida, the University of Virginia, and Graceland University. The goal of the project is to prepare preservice teachers to implement effective VS curricula in three VS roles: Facilitator, Teacher, and Designer. As part of the project goal, a one-credit early field experience offered as an independent study was created in fall 2007 at ISU. This early field experience to offer preservice teachers opportunities “to observe and work with real students, teachers, and curriculum in natural settings” (Huling, 1998:2), which in this case was a virtual high school science course offered simultaneously to different remote sites and taught by an exemplary teacher using blended technologies.

The one-credit course that was created in ISU's WebCT was divided into ten learning modules which included 24 hours of reading, observation and reflective activities. In the early learning modules, the course focused on introducing the preservice teachers to the concept of VS through reading reports and documents pertaining to topics such as the national vista of VS, online teaching skills, misconceptions, responsibilities of a VS teacher, and legislative issues. Additionally, these early modules required preservice teachers to read about participants of VS from the perspective of the VS student, VS teacher and site coordinator from the Virtual High School website (See Day in the Life at <http://www.govhs.org/Pages/Welcome-Home>). These readings helped to clarify the preservice teachers' misconceptions and addressed some of their concerns about VS as indicated in their reflections:

“At first I believed that virtual schooling could only be used for certain classes and was worried about the teacher/student communication as well as the cost of virtual schooling. A lot of the concerns that I believed about virtual schooling turned out to be myths. And the myths came from just not having the right knowledge about virtual schooling.” (Preservice Teacher HH)

Through the readings I have minimized my own fears and anxieties about VS. It was amazing to see the statistics about how children are learning through VS. I liked to learn as well that vs helps kids who cannot have an actual teacher in their school due to budget or just a shortage in teachers. (Preservice Teacher MO)

As with typical early field experiences, the course involved “joint supervision of a cooperating teacher...and a university supervisor” (Huling, 1998: 2). The university supervisor coordinated with a VS teacher of Anatomy and Physiology from Iowa Learning Online (ILO) ([www.iowalearningonline.org](http://www.iowalearningonline.org)) to gain access to her ILO WebCT course for lurking privileges. The VS teacher provided each preservice teacher her own login ID and password and listed them as teaching assistants so they could see not only the student pages but also the teaching tools. The lurking activities allowed the preservice teachers to observe how the high school course was organized such as the individual reading assignments and kitchen labs, the threaded online discussions, quizzes, and tests. They could also observe each individual unit to see how existing internet resources were carefully selected to complement tasks designed by the VS teacher.

Observation alone is insufficient for effective learning. Huling (1998) reported that “careful guidance and mediation to help candidates focus on critical aspects of classroom teaching and interactions and to interpret what they see is necessary for candidates to benefit from field experiences” (p.3). Therefore, in addition to the lurking activities, the university supervisor and VS teacher also negotiated guided observations which were essential for the later learning modules. An early virtual meeting was arranged as an introductory session for the preservice teachers

to meet the VS teacher. The preservice teachers met with their university supervisor on ISU campus and joined the VS teacher in a group session using Skype's web-conferencing tools. The virtual meeting began with introductions using a webcam on both ends. Later, the webcam was replaced with voice chat to reduce technical difficulties. The VS teacher provided an overview of the course and addressed questions ranging from her involvement in VS to the navigation of the course.

A second virtual meeting with the VS teacher provided the preservice teachers the opportunity to observe how she conducted her virtual office hours and used them to address her students' questions and concerns, check on their progress, and provide demonstrations. This session was conducted via the Iowa Communication Network (ICN) (<http://www.icn.state.ia.us/>), a two-way interactive audio-video system with studio classrooms at schools in all Iowa school districts. For this session, the preservice teachers met with their university supervisor in an ICN room on the ISU campus and were joined by the VS teacher to her list of remote sites. This allowed the preservice teachers to observe how the VS teacher managed the technology, i.e. controlled the audio-video system to allow students from different remote sites to see her or students from a specific site. It also allowed them to observe her pedagogy, i.e. demonstrating parts of their curriculum and addressing questions about an upcoming experiment. During the observation, the preservice teachers used Skype as a back channel communication tool to ask questions which were addressed by the VS teacher when her students were working on their units. At the end of the virtual office hour, an additional 15 minutes were added to the session for debriefing between the VS teacher and the preservice teachers. The preservice teachers reported that they found the experience interesting and identified skills necessary for effective VS teaching:

"The skills that I feel are most important when conducting a smooth office hour include certain aspects such as being able to multi-task, and organization. Throughout the office hour we were able to observe the teacher doing multiple activities such as talking to the students and asking them questions or answering their questions as well as typing to us answering our questions or letting us know important aspects of the office hour, also keeping an eye on all of her schools that were present during the office hour." (Preservice Teacher HH)

Another important component of this field experience was an on-site observation of a regional lab. The VS teacher included quarterly regional labs as part of her online course to ensure that students received hands-on experience. Therefore, she arranged regional labs in a few locations to allow students from nearby sites to attend. The preservice teachers scheduled their observation at the nearest location. Since the preservice teachers' content area was not science, they were not expected to focus on the experiments. Instead, they were encouraged to talk to the students and the student coaches to get a better understanding of their experiences and responsibilities in VS.

Huling (1998) reported that field experiences may include other responsibilities including supervising students and grading student work. For this experience, the preservice teachers were also assigned to track a specific group of students. Since the VS course was set up to be flexible and self-paced to a certain extent, tracking a specific group of students allowed the preservice teachers to follow the students' progress more closely and gain a better understanding of these students' learning situations including their schedules and conflicts at their own schools. In addition, the preservice teachers were asked to follow a discussion thread for two weeks and facilitate when necessary. At the end of the two weeks, they had to grade their assigned students' involvement in the discussion according to a rubric set by the VS teacher. These grades were then emailed to the VS teacher who took them into consideration when she actually graded them herself.

Reflective journals were included as part of the preservice teachers' assignments to encourage reflective observation on and synthesis of VS. These reflections included their thoughts after completing the readings, lurking, virtual and on-site observations, as well as practice grading. Their reflections showed that they were more positive towards the idea of VS and were eager to learn more about it:

"I at first was in the class just because I needed to finish my hours for CI 280. Now that I have experienced vs first hand, and see the other side of it, I definitely think it would further my career to be a vs teacher. I would love to work in the classroom as well, but I love the strong role technology plays in VS. I think it would be a challenge to create a course that is good for VS and would like to see and improve on what is already out there. My perception about virtual schooling is changed because I think at first what I had in mind was that it was far away from happening, and everything that was said bad about it. I now know it is such a good thing, and not necessarily better, "just different". (Preservice Teacher MO)

"When I first signed up for the course I was just worried about getting my required hours in for CI280. I didn't know much about Virtual Schooling in fact I knew very little about virtual schooling. I am now really glad that I signed up for the course and have changed a lot of my own personal beliefs and values from the time I first began to now. At first I believed that virtual schooling could only be used for certain

classes and was worried about the teacher/student communication as well as the cost of virtual schooling. A lot of the concerns that I believed about virtual schooling turned out to be myths. And the myths came from just not having the right knowledge about virtual schooling.” (Preservice Teacher HH)

## Conclusion

Overall, the anecdotal evidence showed that this pilot study had positive impact on the preservice teachers. They reported that they began with little or no ideas about VS and were initially enrolled in the course to get their required contact field experience hours but ended the experience with excitement about the prospect of a teaching career in VS.

In this pilot version, preservice teachers did not participate in online discussions in ISU WebCT about their thoughts and experiences. All learning modules were completed independently. An ongoing threaded online discussion will be included in future versions of this course to encourage deeper reflections and thoughts about the field experience. Future adaptations of this pilot course will be used to complement existing field experiences. For example, part of the learning modules can be packaged as a half-credit course to be added to existing early field experience courses where students shadow teachers in a traditional setting, i.e. in a physical classroom. The goal is to expose preservice teachers to VS and provide them with an introduction to this alternative form of schooling that is becoming more visible in the US.

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## Acknowledgements

The contents of this paper were partly developed under a grant from the Fund for the Improvement of Post Secondary Education (FIPSE), U.S. Department of Education. However, these contents do not necessarily represent policy of the Department of Education, and no one should assume endorsement by the Federal Government. We also wish to acknowledge support from all participating organizations, particularly the Iowa State University Center for Technology in Learning and Teaching. Additionally, we would like to thank Gail Wortmann, our wonderful virtual co-operating teacher as well as Dr. Ann Thompson and Jason Follett in their dedication to help us with this pilot virtual field experience.