Virtual Supervision: Opens a Window for Possibilities

Catalyst of Change for Student Teacher Preparation and Educational Equity

Opening A Window

Education in the United States is facing unprecedented changes due to social, cultural, economic, and challenging technological transformations. Policy makers keep requiring new accountability devices. Schools are getting increasingly diverse, and our students are encountering a world order that requires them to effectively interact with people of diverse social and cultural backgrounds. Within this exciting environment the task of preparing quality teachers to meet the needs of ALL students presents stimulating challenges while mandating innovative solutions.

The University of Wisconsin-Whitewater (UWW) along with many universities in the Unites States has been facing these challenges in teacher preparation for several years, maintaining a strong commitment to prepare future teachers for an increasingly diverse student body through meaningful student teaching experiences. However, due to the traditional placement approach, most student teachers are placed in a 75-mile radius of the UWW campus to make it possible for student teachers and their supervisors to drive to the sites. This has severely restricted opportunities to partner with schools in more remote areas, and thus limited the ability of the program to provide diverse learning experiences for student teachers.

Beginning in 2010, the College of Education and Professional Studies (COEPS) turned to advancing technology to better achieve the goal of diversity education for teacher candidates through expanding the range of student teaching placement schools. With the support of the Wisconsin Technology Initiative, the university installed high definition long distance communication systems based on Cisco TelePresence technology in 2012. After multiple tests, in the Spring of 2013 the COEPS launched its innovative virtual supervision project, partnering with Monticello School District in Green County, Wisconsin, which was out of the traditional range for student teaching placement with our UWW teacher education program.
Serving a community of only 1,146 people (2010 Census), the Monticello school district is located south and west of UWW in a portion of the state removed from population centers such as Madison, Milwaukee-Racine-Kenosha, or the greater Chicago area which sits across the Illinois border. An entirely rural district of 370 students, the 2013-2014 enrollment revealed very low racial and ethnic diversity: 98.5% of the students identified as White, 1% Hispanic, and every other category showed less than one percent. District enrollment numbers have been steadily shrinking over the past 15 years while the student body and its district are simultaneously becoming more impoverished.

Due to this combination of geographic isolation, lack of resources, shrinking enrollment, and shrinking local economy, districts such as Monticello face challenges in recruiting teachers and accessing resources from state universities for teacher retention and professional development, not to mention for actual student learning. With the technical affordances of Cisco TelePresence technology in a new Virtual Supervision program, the COEPS and Monticello School District have begun to address the district’s need for access and resources while bringing teacher candidates the opportunity to develop an ability to adequately address teaching for diversity and education equity. Furthermore, Virtual Supervision is opening exciting new possibilities for these two partners to build relationships in areas well beyond traditional teacher education.

**Executive Summary**

Guided by a clinical supervision triad framework (AACTE, 2010; CCSSO, 2012; NCATE, 2010), the virtual supervision includes synchronous virtual observation through high definition TelePresence technology, video-based asynchronous reflective practice within the triad of the University supervisor, the student teacher, and the cooperating teacher, and ongoing conversations among the three parties (See Figure 1). Cisco TelePresence infrastructure supports this ongoing dialog to enhance collaborative reflection and constructive criticism through synchronous life-like, face-to-face meetings and video-based post-teaching conferences. Further, the collaboration provides a model to enhance educational equity by providing resources, curriculum materials, and pedagogical support to isolated school districts.

![Collaborative Triad for Clinical Supervision](image)

Figure 1: Collaborative Triad for Clinical Supervision
Through Cisco support, the student teacher’s classroom at Monticello was equipped with TelePresence technology, and a camera was installed with a bird’s-eye view so that the supervisor could see the entire classroom from the corresponding TelePresence room at the University. The student teacher’s voice, as well as each individual student’s voice, was projected very clearly at the supervisor’s end. At the same time, the student teacher and all the children were able to see the supervisor back in the University.

During the preparation and implementation of virtual supervision, a strong trust partnership has been built among the University of Wisconsin-Whitewater and Monticello School District. The district administrator, the middle school principal, and the University supervisor were the primary contracts during the initial stage of partnership building. The following table shows a continuum of partnership development:

<table>
<thead>
<tr>
<th>Partnership Development</th>
<th>Goal</th>
<th>Beginning</th>
<th>Developing</th>
<th>Integrating</th>
<th>Sustaining and Generative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Partnerships that support:</strong></td>
<td><strong>Communication of beliefs, commitments, plans among administrators</strong></td>
<td><strong>Communication among the triad and technology support</strong></td>
<td><strong>The goals of partnership are integrated into the implementation of virtual supervision</strong></td>
<td><strong>Communication on systemic changes in policy and practice</strong></td>
<td></td>
</tr>
<tr>
<td>1. Development of clinical practice of knowledge, skills, and dispositions in teaching</td>
<td>1. Face-to-face meetings at the initial stage</td>
<td>1. Technology Test</td>
<td>1. Virtual supervision</td>
<td>1. Reflection on learning outcomes within the triad</td>
<td></td>
</tr>
<tr>
<td>2. Development of knowledge in virtual supervision technology, process, and procedures</td>
<td>2. Communication among technology infrastructure supporting personnel</td>
<td>2. Clarification of roles and responsibilities among partners</td>
<td>2. Ongoing communication</td>
<td>2. Reflection on technological challenges and solutions</td>
<td></td>
</tr>
<tr>
<td>4. Inquiry for future collaboration through virtual communication</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
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* Adapted from NACTE (2001): *Standards for Professional Development Schools*

**Virtual Supervision Enhances Teaching for Diversity**

It was a challenge for student teachers to adapt to a new environment with which they had little personal experience. With the support of the cooperating teacher and the supervisor in a learning community, the student teaching experience equipped them with an understanding of the life realities of marginalization and rural isolation experienced by students living in rural areas. According to the supervisor, “the Telepresence technology literally is a lens into these schools. Without the virtual solution, it would be impossible for our student teachers to gain experiences in teaching in rural areas like this.”
Video-recorded lessons provided a common ground for communication between the student teacher, the supervisor, and the cooperating teacher. After watching the video, the supervisor was able to ask specific questions and provide constructive feedback. For example, after observing a writing lesson on expressing opinions, the three participating parties watched the video recorded lesson and the supervisor provided feedback, suggesting that the student teacher should encourage students to come up with writing topics that are based on their life experiences such as farming, and then the teacher could push them toward higher order thinking by linking their life experiences to the larger social economic context with lesson topics on resources, environmental protection, and so forth. Revisiting their classroom teaching by watching the videos helped the student teachers understand the strengths and weakness of their teaching, one student teacher commented: “once I watched the video I understood what you (the supervisor) had been saying.”

The cooperating teachers valued the sense of community and felt their voices were respected and professional knowledge was valued during the supervision process: “I was able to take notes during the lesson along with your (the supervisor) notes and we had the recorded video as well. There were so many opportunities for communication and feedback!” The Monticello Middle School Principal, Allen Brokopp, echoed the value of virtual supervision in co-construction of knowledge in teaching for diversity as well: “The engagement with virtual supervision really provided recognition to our teachers regarding their knowledge and experiences in working with the students from our community.” In addition, virtual supervision increased opportunities for observation and engagement in conversation regarding “the teaching,” which is the ultimate goal the partners set up at the beginning.

Virtual Supervision Enhances Educational Equity for Remote Schools and Districts

Monticello School District is geographically isolated, posing challenges for recruiting new teachers and accessing curriculum resources and pedagogical support from university campuses relative to recruiting to more favorably located districts. During the supervision process, educational equity emerged as a common theme in the conversation. School district administrators strongly believe virtual supervision enhanced educational equity for them by enabling them to host more student teachers in their school district, improving their potential for future new teacher recruitment and building a strong partnership with access to university curriculum and pedagogical resources. “This partnership and technology provides a huge amount of resources for the school, something that wouldn't normally be available in a tiny town,” commented the principal.

The partnership with the COEPS at the UWW functioned as a catalyst for further innovative projects. In fact, inspired by the virtual supervision projects, the teachers and the district administrators indicated that they feel “ready” to pursue other innovations to better support their students in spite of the district’s limited resources. For example, due to a lack of financial support, the school district was unable to offer AP psychology classes. Instead of accepting this situation passively, the district is now partnering with another school district to offer through TelePresence the AP classes taught by teachers in that school district. This is only
the beginning, as superintendent, Karen Ballin highlighted, saying: “We are problem solving people by nature. We want to do the best for our kids and the virtual technology really enhanced everyone’s game.” A shared vision of improvement and educational enhancement is apparent among district administrators. “The virtual supervision project is a catalyst for other district changes and other possibilities,” commented principal, Allen Brokopp.

Virtual Supervision Provides a Window for Students

Student enrollment in the Monticello School District has been dropping steadily since 1995, from 474 students district wide to 370 in 2012-2013. At the same time, the percentage of students considered economically disadvantaged has risen from 10.5% to 35.4%. Rural poverty is a great challenge for student enrollment, retention, and success. According to Brokopp, students and parents need to see their potential for success. The virtual supervision provides a window for the students to see the outside world, encouraging them to rethink their capability to go to college. Enthusiastic superintendent Ballin commented as well, saying, “this [virtual supervision] is a window for our kids to the world. It’s really real to them. It sends the message to them that they are well connected to the world.” Furthermore, the project and its success is moving into the community as it was fully supported by a school board who held a strong belief that “the screen is a window and can change the district’s views.”

Cisco TelePresence Infrastructure Supports Virtual Supervision

Cisco TelePresence, first introduced in October 2006, is a product developed by Cisco Systems which provides high-definition, spatial audio, and a setup designed to link two physically separated locations so they resemble a single conference room regardless of distance. Cisco TelePresence is the ultimate in immersive video collaboration, bringing partners together for life-like, face-to-face meetings from different places in the world. In addition to the high definition connection and synchronous video recording, this revolutionary technology transparently integrates supported interactive whiteboards with speakers and Cisco TelePresence. Synch effectively converts a standard interactive whiteboard into a powerful multifunction collaboration tool that brings together "live," remote experts and classrooms.
An ideal support for virtual supervision in teacher education, Cisco TelePresence offers the ability to connect two locations synchronously through high definition telecommunications during student teacher observations. At the same time, the system captures videos of the observed lessons, which can then be stored and later streamed for the post-teaching conferences that are at the core of collaborative reflection. Based on the video, the three parties in the triad can have a life-like “face-to-face” TelePresence meeting to reflect on the lesson, discuss the strengths and weakness of student teachers’ teaching, and explore solutions for future improvement. This applied technology and methodology increases collaboration within the triad to achieve the fundamental purpose of education: enhancing the teaching and learning of future generations through critical analysis. In this virtual supervision project, specifically,

Cisco Infrastructure Supports the Clinical Supervision By:

1. Providing stable and sustainable virtual communication before, during, and after classroom observation;
2. Building a collaborative triad of the university supervisor, the cooperating teacher, and the student teacher
3. Video recording prospective teachers’ teaching performance for collaborative reflection and formative assessment
4. Enhancing student learning in the P-12 classroom

Clinical Virtual Supervision Procedures Include:

1. Face-to-face meetings within the triad
2. Pre-observation communication
3. Virtual observation
4. Video-based reflection
5. Post-observation conference
6. Debriefing for further collaboration opportunities

Summary and Lessons Learned

Virtual Supervision is a pedagogical tool to transform supervision processes, proving to be a catalyst for change in community building, student learning, and teaching for diversity and educational equity. In addition, with the upcoming implementation of edTPA, student teachers will need video recordings of their teaching and virtual supervision will give them experience teaching in front of a camera as well as video-based reflection for performance-based assessment. When virtual supervision is used, some practical considerations need to be kept in mind, for both school districts and university teacher education programs:

1. It is important for partners to examine the working culture before engaging in collaboration. As for school district, the climate must include support from the school board.
2. All partners should examine their levels of readiness for this type of partnership that is facilitated through TelePresence technology.
3. A relationship of trust must be maintained throughout the project even in the absence of a face-to-face connection. The human element cannot be eliminated even as the use of distance technology increases.

4. It is critical to have the right participants/stakeholders who are open-minded and willing to learn the required technology as early adopters for all aspects of a virtual supervision program, and build the capacity of the organization thereafter.

5. Teleconference technologies are great pedagogical tools, but malfunctions are always possible, so backup plans are vital to the success of the endeavor. All participants should be willing to be flexible and a “problem solver.”

6. All parties need to remain aware of the children’s learning environment, prioritize student learning and protect student interests. Consent is always needed from students’ parents to include their children in the view of the camera, especially in recorded videos.

7. By initially addressing potential problems and potential benefits for all parties concerned, schools, districts, children, and parents can become willing partners in Virtual Supervision, empowered to employ the technology directly for student learning.