



RACOL

Rural Advanced Community of Learners



RACOL Best Practices

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1.1 Background

Part of the mandate of the RACOL project was to create a sustainable distance education teaching environment for the teachers and administrators of the Fort Vermilion School Division. It became apparent early on that many resources would be required to train teachers to teach in such a unique and technologically immersive environment.

One of the resources produced by the project to meet this goal was a series of best practice vignettes that presented the teaching best practices of the first set of teachers who taught using the Virtual Presence Learning Environments (VPLEs) in the Fort Vermilion School Division. Their teaching best practices were recorded, analyzed, categorized and put into an interactive web-based graphical user interface. This model of best practices will allow future users of the VPLEs to explore and learn from the challenges and successes of the first RACOL teachers.

1.2 Project Results

1.2.1 Deliverables

The deliverable regarding best practices states that RACOL will produce:

A set of "best practice" exemplars including video clips of lectures, examples of the use of the Alberta Learning Online Curriculum Repository and other learning materials used, and commentary by the teacher on the objectives of the lesson.

1.2.2 Design

It was decided that video vignettes would be the most useful and practical method of imparting the best practices of the teachers to future users of the system.

Data was gathered for the best practice vignettes using a number of methods. Individual interviews were conducted with the teachers at the end of their first semester of teaching. Though the recording system was not yet functional, these interviews were a first step in identifying which methods of teaching they felt worked well in the VPLEs, and which ones they didn't.

The second and more fruitful method of data collection was through a series of debriefings at the monthly professional development meetings. Each month, the teachers were brought together with members of the research team over the videoconferencing system. A significant amount of time within these meetings was spent discussing with the teachers what they were learning, what challenges they were coming up against (both anticipated and unanticipated) and what steps they were taking to meet these challenges. The primary benefit of these meetings was that teachers were then able to discuss and share their own best practices in relation to the troubles other teachers were experiencing. Many of these best practices would not have been verbalized if not for the teachers' attempts to collaborate and assist each other.

1.2.3 Outcomes

Once the best practices of the teachers were identified, they were categorized into 5 vignette areas:

1. *Preparing to Teach in the VPLEs* - Special considerations for planning that would not be necessary in a traditional classroom, how to begin thinking about teaching using the technology at hand and how to effectively integrate other resources.
2. *Teaching in the VPLEs* - Being aware of your space in new ways (how students see you over the system), making the technology a seamless part of your lesson and getting used to the differences in pacing.
3. *You and Your Students* - Addressing classroom management when you're not really there, getting to know your students better over the system, and special considerations for treating students equitably when you have both a local and remote group of students.

4. *Using the Technology in the VPLEs* - Doing a system check, planning for a slow system or system failures, using appropriate software, knowing what to do when things go wrong and making sure that steps are taken to fix problems.
5. *Performing Administrative Tasks Using the VPLEs* - Performing every the every day teaching activities of marking, taking attendance, administering tests and providing extra help using the VPLEs.

Once these categories were compiled, multiple video resources were brought together to create the actual vignettes, including video streams of the teachers teaching, interviews with the teachers and interviews with subject matter experts. Rather than having longer videos, short concise clips were created for each best practice and an HTML graphic user interface was created so that users could pick and choose which available segments they wanted to see.

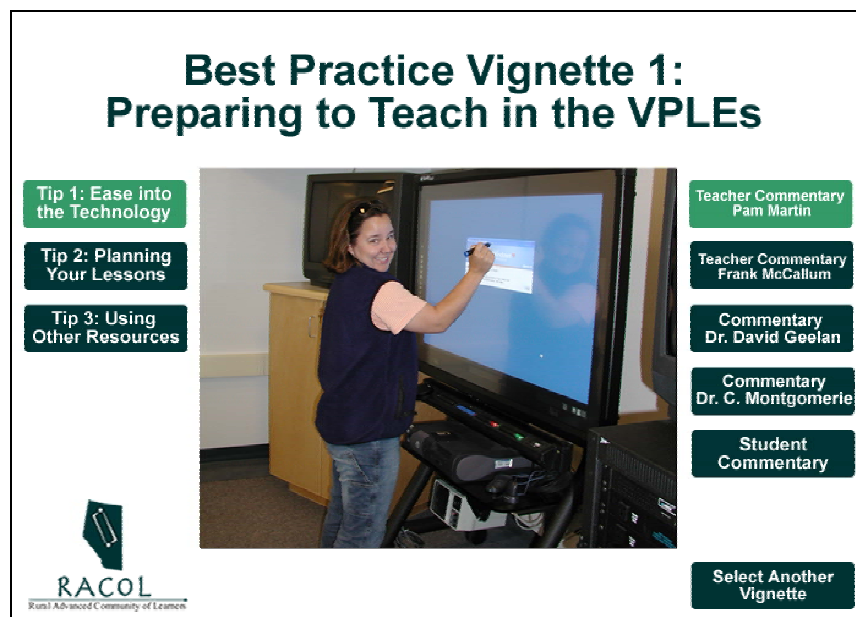


Image BP1 - The Best Practices Graphic User Interface

These segments included any or all of the following:

1. Actual teaching examples (which run along the left side of the interface)
2. Teacher commentary
3. Student commentary
4. Subject matter expert commentary



Once the best practice vignettes were completed, they were placed on the RACOL web site.

1.2.4 Achievements/Challenges

The primary challenge of creating the best practice vignettes was the timeframe in which they had to be completed. Due to a number of unforeseen factors, the project timeline was pushed backwards considerably, along with many of the individual components that were required to create the vignettes. Due to these delays, the video recording system was not up and running until the second semester of the 2003-2004 school year (End of January, 2004). This meant that at the time of the project's completion (March 31, 2004) there were only two months worth of video data to work with and very limited time to actually compile the video portions of the vignettes.

The second major challenge to creating the vignettes was a matter of teacher time. There were a large number of best practices identified for this project, and having teachers comment on each one was not feasible. Instead, teachers were asked to comment on the practices that they felt most strongly about, and the rest of the best practices that they identified were supplemented by the opinions of subject matter experts (mostly experts in pedagogy and technology from the University of Alberta).

One of the major achievements of the RACOL best practices was the unique delivery format of the vignettes, which helped to address this problem of limited data availability. By creating shorter user driven video segments, rather than more traditional longer videos, the vignettes were easily expandable and changeable. In the future, if there are additional commentaries or exemplars, a new button link can easily be added to the HTML template for that vignette, rather than having to edit and re-render a large video file.

The other major achievement of this project was of course the best practices that were identified by the teachers. Although best practices have been identified in some other videoconferencing initiatives, the immersive technological



environment of the VPLeS meant that the teachers using these rooms met with many new and unforeseen challenges. This project was not simply about videoconferencing; it was about creating a natural teaching environment using multiple technologies, which included videoconferencing technology. As such, the best practices identified by our teachers were unique and intriguing in many ways, and often went beyond those put forth by more traditional videoconferencing projects.

1.2.5 Lessons Learned

A number of lessons were learned regarding both the creation of the video vignettes, as well as the identification of the teaching best practices:

Video Vignettes

- Creating shorter video segments within a GUI facilitates the maintenance and updating of the video vignettes over time.
- Creating shorter video segments allows users to "drive" their own experience and view what they feel is important and relevant.

Identifying Best Practices

- Identifying best practices collaboratively is a beneficial process as the discussion often raised new best practices as teachers tried to help each other with their challenges.
- Identifying best practices within the professional development meetings meant less of an individual time commitment for each of the teachers.

1.2.6 Recommendations

Unfortunately, the creation of the best practice vignettes was highly dependent on the schedule of a number of other deliverables for this project. This meant that there was only a two month window in which to record, store, view, compile and edit all of the video data for the vignettes before the end of the project. In the future, it would be beneficial to either outline alternate methods of data collection that are not so dependent on the timeline of other deliverables, or to allow more "summative" deliverables like the vignettes to be ongoing after the completion of the project.



It is also highly recommended that future researchers use a collaborative model for identifying best practices. Compared to the one-on-one interviews that were conducted, this method of gathering data was beneficial for a number of reasons:

- It allowed a variety of researchers in different areas (evaluation, professional development, best practices) access to the data
- It took much less of the teachers' time as compared to the one-on-one interviews.
- It provided more results than the one-on-one interviews.

1.3 E-learning Program Criteria

The creation of the best practice vignettes has met all of the criteria set out by the RACOL partner agreement:

1. *Technological innovation within the context of education or training* - The design of the vignettes themselves was an innovation within the context of education and training. Rather than using a more traditional long video model, an interactive, user driven model was created to give learners more control over what best practices and commentary they wished to see.
2. *Use of broadband technology* - Much of the video data for the vignettes was obtained using the recorded video from the Fort Vermilion School Division's streaming retrieval system, the same system that allows students to access and view past lessons over the system.
3. *Addressed structural barriers to the effective use of technologies in the education/training fields* - It is in this area that the best practice vignettes have met the criteria of the RACOL partner agreement most effectively. The vignettes themselves are a concrete record of many of the structural barriers to the effective use of technologies by the RACOL teachers who teach in the VPLEs. Moreover, the vignettes not only outline the challenges of teaching in this environment, but also propose solutions to them based on the experiences of the teachers who have been using the system. The best practice vignettes will allow future users of the VPLEs to begin teaching with a great deal of background knowledge about what it means to teach in such a technologically rich environment, allowing their teaching experience to be more informed and effective.

1.4 Phase Deliverables

Objective/Deliverable	Actual Achievement with Comments
<p><i>4 Best Practices Vignettes</i> - A set of "best practice" exemplars including video clips of lectures, examples of the use of the Alberta Learning Online Curriculum Repository and other learning materials used, and commentary by the teacher on the objectives of the lesson.</p>	<p><i>5 Best Practices Vignettes</i> - A set of "best practice" exemplars including video clips of lectures, examples of the use of technological resources and other learning materials, and commentary by teachers, students and subject matter experts on the objectives of the lessons. These vignettes have a unique user driven GUI to allow for more control in choosing what content to view.</p>

1.5 Schedule

Scheduled Finishing Date - 02/01/2003

Actual Finishing Date - 03/31/2004

Gathering the actual data for the best practices (e.g./ the actual best practices as outlined by the teachers) could not be completed until the teachers actually started teaching using the VPLEs (September, 2003). The vignettes themselves could not be created until the second semester of that school year when the recording system was implemented (end of January, 2004). The vignettes were compiled in the two months between that time and the end of the project (March 31, 2004).

1.6 Information Dissemination/Technology Transfer

1.7 Conferences/Workshops

Conference/Workshop/Seminar	Category	Registration Fee (y/n)	Number attending	Audience
Banff Centre - Beauty of Collaboration Conference	OW	Y	40 (est)	M
Society for Information Technology in Teacher Education (SITE) - March	OW	Y	2000+ (conference), 11	E



1 st -6 th , Atlanta, GA			(seminar)	
CADE - This is IT 2004 Conference: Pioneers in a New Age. May 30 th - June 2 nd , Toronto, ON.	OW	Y	Future conferenc e.	M

1.8 Publications

Article title and location	Audience
1. N/A	
2.	
3.	

1.9 Print and Electronic Media (Promotion/Communication)

Title/event	Audience
1. N/A	
2.	