



## 2004-2005 School Year

*If the proposal is a collaborative, provide information for all parties involved.*

<b>Project Title:</b>	<b>Digital Video Feedback</b>		
<b>Submitted by:</b>	<b>Matthew Dicks</b>		
<b>School:</b>	<b>Wolcott</b>	<b>Grade Level:</b>	<b>3</b>
<b>Department:</b>	<b>Regular Education</b>	<b>Date Submitted:</b>	
<b><i>Review and approval signatures required below prior to submission:</i></b>			
<b>Principal:</b>			
<b>Department Supervisor:</b> (if applicable)			

**I. Project Abstract: Limit the abstract to the bottom of this page, 12 point, single spaced.**

Briefly describe the project and include your *rationale* for considering this a “**Lighthouse Technology**” proposal. Digital Video Feedback is a system by which students and teachers can view, reflect, and receive immediate feedback on their teaching, learning and behavior in the classroom. Initiated as a means of demonstrating productive peer conferencing during Writer’s Workshop, I quickly recognized the value of this system when applied to other aspects of the classroom environment. Using a digital video camera, students’ performance is taped on a regular basis, and the footage is either shown immediately to the student or class as a means of highlighting positive learning behaviors, or it is edited and included as an element of a future lesson. After experiencing great success with this system during Writer’s Workshop, I have expanded it into many other areas, including:

- Readers Workshop, where students see and hear what a productive “book talk” looks and sounds like
- Science instruction, where students can view experiments and determine the validity of the results by evaluating their use of the scientific method
- Behavioral management, particularly with students who are often off-task or unfocused. By allowing them to view their own behavior in the context of the whole class, students are often able to independently assess and modify behavior.
- My own instruction. By routinely viewing my own teaching, I have been able to adjust and modify my instruction to better meet the needs of my students.
- Student-created productions. Students have now begun to document their own conferences and experiments through the use of video, which they later present to the class with personal commentary.

Lighthouse Grants seek to promote the use of technology in the classroom by creating an environment in which learning becomes more student-directed and project-based, and I believe that Digital Video Feedback meets these goals exceptionally well. This model allows me to use technology seamlessly in order to guide student learning, and students are able to use technology as a means of assessing and documenting their own work.

**Maximum of three to five pages including this one, 12 point, double spaced.**

## **II. Project Description:**

1. Describe the project proposal in detail and clearly link your proposal to the district goal, vision statement, and objectives as outlined on the grant announcement page.

Earlier this year I was preparing a workshop for teachers on the management of Writers Workshop. In the planning process, I decided to videotape one of my own Writer's Workshops in order to demonstrate the strategies that I would be explaining in a real-life situation. Using a video camera, I spent the 90 minutes videotaping typical Writers Workshop activities, in particular peer conferences and my own student-teacher conferences. Then using editing software, I condensed the material into a 30-minute instructional video that was very well received by teachers who attended the workshop.

As I viewed the tape in order to prepare for the workshop, certain strengths and weaknesses in my students' ability to conference became clear, as well as some of my own. For example, students' comments were in general very helpful to writers and often highlighted important aspects of the narrative, but my students were failing to present their comments in an approachable and appealing way. They often opened their commentary with a negative remark rather than a positive one and made suggestions using the phrase "You should" rather than "You could."

After watching the tape, I explained what I saw to my students, and one student responded, "Can you show us what you're talking about?" I thought, "Why not?" As students watched their own conferences, I could actually hear the light bulbs firing off with phrases like, "Ah ha". "Oh..." and one child, who whispered to a friend, "Sorry I sounded so mean." It was then that an idea dawned upon me. Using digital video, I had just made more progress in student conferencing in 30 minutes than I could have made in 30 mini-lessons. The power of watching oneself on video and receiving immediate feedback is remarkable, and I began using this on a regular basis in my classroom, filming and editing peer conferences about once a week to show students as part of my mini-lesson.

Research has recently shown that our current generation of students, members of what researchers call the "Game Generation," have grown up playing video games and using the Internet as a means of learning and entertainment. As a result, "the game generation expects to receive feedback and a pay off shortly after accomplishing a task." (Prensky) This is why students who seem to be unable to focus in class can often spend hours honing their video game skills with great concentration. The immediate feedback that a video game provides keeps these children actively engaged. "Video games provide immediate feedback in scoring and in visual and auditory stimulus, which allows learners to more quickly modify their learning strategies before the ineffective ones become entrenched." Digital Video Feedback takes advantage of this immediate feedback element.

As I watched my students' peer conference improve more rapidly than ever before, I realized what a powerful tool I had stumbled upon and began expanding it into other aspects of the curriculum. I currently use Digital Video Feedback as a part of my writing, reading and science instruction, as well as a means of managing behavior and modifying my own instruction.

As a part of reading instruction, I routinely videotape student book talks and book club meetings and later show this footage to students as a means of demonstrating positive learning behaviors. Students begin to better understand what topics are available to them during a book talk and their discussion becomes more lively and productive. Many of the reading strategies that are taught in class have made their way into my students' book talks as a result, including prediction, compare and contrast, identifying author's propose, and identifying main idea. When I can highlight students discussing and synthesizing these strategies in their conversation about a book through the use of digital video, it isn't long before the entire class is using the same strategy. When

students are actively discussing reading strategies normally relegated to pencil and paper activities, the learning curve speeds up tremendously.

As a part of science instruction, students routinely videotape their own experiments and the footage is later used as a means of reporting and assessing their work. By stopping and rewinding the steps in a specific experiment, students can observe, assess and comment on where the scientific method was adhered to during an experiment and where it was not. This has helped to make my science instruction more project-oriented and has dramatically improved my students understanding of the basic foundation of experimentation. With a science section soon to be added to the 5<sup>th</sup> grade CMT (including a practical application section), I can envision this application becoming an even more important instructional tool in any classroom.

Overall, I have witnessed a dramatic increase in student learning through the use of Digital Video Feedback in the areas that it has been applied thus far. Students have become more confident and more competent in their ability to communicate understanding, and the immediate feedback has resulted in immediate and meaningful changes in student learning. In particular, students who tend to be less introspective or less observant now have a powerful tool through which they can begin to see and modify their own learning behavior, and this helps to minimize the disparities that these students have in comparison to their peers. When students themselves become catalysts in developing learning strategies and modifying behavior, significant strides in learning take place.

Students have also been given the opportunity to experience digital video technology hands-on at a very early age, by documenting and preparing their own work for presentation and assessment. Students are learning to communicate ideas and understanding through technology in ways that are both meaningful and important. This initial experience with technology will undoubtedly contribute to the spiraling of technology instruction as students move on in their education.

In terms of modifying behavior, Digital Video Feedback seems to hold the greatest potential. One of the strategies employed by our school psychologist when working with students who exhibit off-task behavior is to observe the student over a period of time and then report to the student what she has seen. By helping a student to understand his or her behavior better, it becomes easier for the student to modify their behavior. Digital Video Feedback takes this strategy one step further by allowing students to actually watch their own behavior in the context of a classroom situation and allowing them to compare and contrast their behavior to their peers. This is a powerful experience for many of my students. In viewing their own behavior, students are given the ability to make assessments without an adult needing to pass judgment. This is an extremely powerful tool for the student who is not able to pick up on the instructional and social cues of the teachers and his or her peers. When students are able to recognize the problems that exist in their behavior, the impetus for them to change that behavior increases tenfold, and the playing field becomes far more level for my more impacted students. This process has made a remarkable difference in the behavior of a number of my students.

Lastly I've discovered the value of Digital Video Feedback in my own instruction. As teachers, we often work in a vacuum, devoid of any outside adult interaction. As a result, it becomes difficult at times to honestly assess our own skills and abilities as an instructor. However, when given the opportunity to watch my own instructional techniques on a regular basis, areas of improvement quickly have become evident. For example, after videotaping some of my teacher-student writing conferences, I discovered that the problems that existed in my students' peer conferencing also existed in my own teacher-student conferencing. In essence, my students had learned their conferencing behaviors from me and now sound exactly like me in their conferences. I quickly realized that as much as the students might improve on their own, the only way to really change conferencing in my classroom was to change and improve the way I conference with them, which I have since done. This has made an enormous difference in the way I speak to students about their writing.

2. Identify the curriculum objectives your proposal addresses.

Reading: By incorporating Digital Video Feedback into Reader's Workshop, students will:

- Recognize how literary devices and conventions capture readers' attention
- Explore multiple responses to literature and non-fiction
- Recognize that readers and writers are influenced by individual, social, cultural, and historical contexts
- Explore decisions and social issues through literature and non-fiction
- Describe, interpret, reflect on, analyze, and evaluate texts in order to extend understanding and enjoyment.
- Communicate with others to create interpretations and evaluations of written and visual texts.

Writing: By incorporating Digital Video Feedback in peer conferencing, students will:

- Share good models of writing
- Revise and/or edit their writing more effectively
- Better understand the writing process as it pertains to fictional narrative
- Increase the overall productivity of the Writers Workshop model

Science: Incorporating Digital Video Feedback as an element of scientific experimentation, students will:

- Make scientific observations
- Evaluate the validity of specific experimentation
- Compare and contrast the results in similar experiments
- Identifying factors that alter experimentation results
- Communicate scientific findings as a means of presentation and/or assessment

3. Explain how teaching and learning will be improved.

Learning will improve in the content areas specified above by allowing students to evaluate their own work and the work of others in order to improve their own skills and strategies. By allowing students to become part of the instructional process, the learning in the classroom becomes more student-centered and therefore more effective.

Learning will also significantly improve as overall classroom behavior improves. As off-task behaviors diminish, not only will those students who are frequently off-task see enormous academic growth, but their off-task behavior will also cease to be a distraction to the more focused, on-task student. Overall student learning increases tremendously.

Instruction will improve as I am able to better evaluate my own teaching by viewing it from the other side of the lens. This same strategy is in place as part of the BEST program, but following its completion, teachers are not required nor are they given the opportunity to examine their own teaching through video again. Digital Video Feedback will provide me with an almost daily opportunity to personally assess and modify instruction.

4. Describe expected student outcomes and measurable evidence that will demonstrate success.

Through Digital Video feedback, students' ability to communicate ideas in Readers Workshop and Writers Workshop will dramatically increase, and as a result, reading comprehension and writing skills will also improve. By digitally cataloging student interactions at various times during the year, I will be able to observe measurable improvement in terms of my students' ability to communicate literacy ideas and opinions with one another by comparing those interactions over stretches of time. As a by-product of this improved communication, students' reading and writing scores will also show measurable improvement.

By digitally cataloging students' science experiments and digital presentations, I will also be able to observe measurable improvement in students' understanding of the process of experimentation and the scientific method. Students will gain a better understanding of variables in experimentation, the importance of repeating experiments, and become more adept at identifying flaws in experimental procedure. As a result, their findings should prove more valid as the year progresses. This will also result in a solid science background that will prove immeasurable when science is added to the CMT.

5. How will your project be sustained when grant funding ends?

Fortunately, none of the grant will be spent on consumable products, so that once the system is in place, it should be self sustaining barring any future equipment maintenance and/or replacement.

6. How will you share your efforts, so that it may be replicated or adapted by others?

Having conducted CSI's in the district for the past five years on the teaching of writing and classroom management, the presentation of Digital Video Feedback in future CSI's will serve as a logical and natural progression from what I have presented already. Beginning first with the standard CSI format, I plan to instruct teachers on this model by inviting them into my classroom and demonstrating Digital Video Feedback through direct instruction, modeling, and (most important) a sampling of the work that will already be cataloged. By seeing the model at work, teachers will begin to understand how simple it is to implement when the tools are in place. Fortunately, the tools for Digital Video Feedback are already available in most schools. With the use of a single video camera and a television, teachers throughout the district could begin implementing this model almost immediately. Teachers lacking knowledge in video editing can begin the process by simply videotaping their students and playing that footage back on a television immediately. Best of all, almost any teacher, regardless of his or her familiarity with current technology, can quickly learn to operate a video camera and play back the footage on a television, making this model accessible to all who are interested.

As with all CSI's that I teach, I also plan to invite teachers to visit my classroom during the regular school day to see the model at work firsthand. This has often proven to be the best and most effective way for teachers to understand what is required to make any model work.

As my catalog of student work increases, I ultimately plan on producing a series of videos for teachers (within the first year of the model's implementation), to both instruct teachers on the use and effectiveness of the Digital Video Feedback model, as well as to instruct on the management and instruction of Writers Workshop, Readers Workshop, and the use of this technology with science experimentation in the classroom. With the limited number of professional development hours available to teachers each year, these videos, accompanied by possible follow up visits to my classroom, should prove to be a valuable resource to teachers looking to introduce this form of technology to their classroom.

### **III. Budget:**

#### **1. Budget Narrative**

Describe the items to be purchased and clearly link them to the project description and objectives. Explain how the items will be utilized by students and/or teachers. Indicate where there may be other costs, services, or modifications needed for full implementation of the grant; and specify the resources available to cover the amount required beyond the grant total, if applicable.

Up until this point, I have managed to implement the Digital Video Feedback model into my classroom through a great deal of cooperation and collaboration with my colleagues. Having access to only one camera in the building, there are many times when I would like to be videotaping students or having my students record their work but cannot. Though my colleagues have been very helpful to me by allowing the school's camera to be

stored in my classroom, it simply isn't available enough for me to implement the model completely. I also require a television to be available at all times to make this model work, and again, the televisions in the school are not always available to me.

In order to fully implement this model, I will need to purchase a digital video camera that can remain in my classroom at all times. I will also need a wide angle lens, so that I can get "close to the action" without actually sticking the camera in students' faces, as well as a shotgun microphone, in order to pick up the softly spoken words of many of my students.

In order to effectively and immediately play video for students, I would purchase a SmartBoard for my classroom, capable of playing video from a fixed position in the classroom almost immediately, as well as capable playing video from a hard drive, saving an enormous amount of time in terms of exporting and burning video to DVR's and DVD's. The SmartBoard would also allow me to write over moving video in digital ink, allowing me to highlight elements of the video, and would allow students to present their video to peers using SmartBoard technology.

In order to catalog students' work, I require a much larger hard drive than currently exists in my school computers, as video takes up a great deal of space. In order to save money, I would purchase 2 external hard drives rather than a new computer and use them to only store video, while continuing to use a recently donated Apple G4 and my personal laptop to perform the actual editing of video.