Demonstration of Responsibility #6: Uses incisive and relevant assessment and evaluation techniques (e.g., product or project which uses formative and/or summative evaluations.)

Artifact 6: Multimedia 1 (GWHS) – Final Project Evaluation

THE PROBLEM

When designing and delivering instruction, many educators fail to create and utilize assessments that their instruction in a relevant manner. The instructional planning-assessment-feedback cycle is often mismatched or misapplied to refining instruction. Though teachers adopt rubrics and other assessment strategies, these are often poorly designed and ineffectively interpreted for the purposes of refining instruction. Creators of educational materials have traditionally provided assessments that are easy to administer and score. While this type of assessment is often sufficient, it may not give the teacher an understanding of the student's learning process.

BACKGROUND

To address the issue of incisively designing and applying evaluation during the learning process, I have approached the format of my courses to assess the following components:

Skill & Project Based Learning – The nature of vocational education is congruent with my personal philosophy and I have adopted the practice of directly observing the skill a student has developed. Whether watching a student change the oil in a car or creating a business letter, the teacher has a clear understanding of the student's skills and knowledge. While this type of assessment is time intensive, I've fine-tuned my approach to evaluation with the help of some tools. Rubrics have helped me define even more clearly what my expectations are for my students. During the last several years I have been developing a Multimedia course at George Washington High School. This course teaches basic design, digital video, digital audio, imaging editing, computer based presentation skills, project management, and authoring. As I'll describe later, each of these units or components includes several levels of evaluation.

Support of Learning - One of the most exciting components of the Multimedia course is the accumulative final project. Students must partner with an academic teacher (sponsor), creating an interactive educational multimedia CD-ROM for that teacher. Past projects usually address the course requirements for two classes (e.g. the requirements for Multimedia and a project for Chemistry to demonstrate student understanding of the Periodic Table). Students create project proposals, navigational flowcharts, screen mock-ups, a draft project, and the final project. The sponsoring teacher "signs off" each step of the way. Students learn project management (The Systems Development Life Cycle), user needs and communication, academic content -- all in the context of multimedia design and authoring.

Assessment and Evaluation (Formative and Summative Evaluation) - Many students and adults struggle with breaking a large project into small components and remaining focused on the 'small' tasks. By using a variety of assessments and feedback loops, students learn the importance of project management and assessment. Students receive a *project memo* describing each expected 'deliverable' and project requirements. The project memo is used by students to track progress on the entire process. Specific due dates are stored on the assignment calendar posted on the classroom wall and written on the chalkboard. Each *deliverable* has an associated assessment, breaking the larger project into manageable small tasks. The student interacts numerous times with the sponsor and teacher performing an informal needs assessment, negotiating project content and design.

Several feedback loops of *self-evaluation*. *Student to student*, student to sponsor, student to instructor have also been built into the design of the course. Students evaluate their own work before they hand it in to the instructor and they also evaluate each other.

RATIONALE

Integrated technology projects benefit student learning in a variety of ways. Students are more motivated due to subject and design input, they receive cross-content reinforcement, and they receive multi-sensory instruction.

IT projects benefit staff relationships as well. I am continually surprised by and thankful for the feedback I get from my fellow teachers and administrators. Our tendency and ability to collaborate across content areas increased greatly following the success of the first few sections of the Multimedia course. The IT projects have served as a bridge between staff. Teachers see the value of integrating academic content into a technology-based context. International Baccalaureate teachers even invite me to recruit students during their classes. They see the Multimedia course and me as an instructor as a support for their student learning objectives.

A critical element of the Multimedia project is that it be based on some real life or school based topic. Student, parents, and other teachers recognize that educators don't need to work in isolation but can accomplish common goals by using technology as the context or framework for exploring core knowledge areas.   A topic that might be fairly unappealing to most students can become interesting when paired with the bells and whistles available through multimedia.

This type of project also helps students distinguish the importance of different evaluation methods, especially self and peer evaluation. Students learn the importance of creating a project focused on needs other than their own. They also learn to develop critical self-evaluation, relating their work to stated expectations (the instructors and the sponsors). They are also encouraged to gain help and feedback, both formally and informally, from peers. Students need to develop the ability to collaborate with others as well as to tackle learning independently. I believe that these are life skills that will support their learning in all academic areas.

RESULTS

I would describe the Multimedia course as an overwhelming success!   Evidence of this success has occurred at four levels:

- Students have learned tremendous technical skills as well as developing a deep understanding of the topic of their project
- Other GW staff have learned to accept and access technology as another context for students to express what they know
- GW administrators recognize and value technology as a way to support student learning across the content areas as well as hooking students who may be difficult to engage
- Students, staff, and parents have experienced pride and success through dominating local, state, and national multimedia competitions

Some of the most inspiring success stories have involved mediocre or "problem" students who become turned onto learning through Multimedia. Several of my past students who are characterized as 'trouble makers' or are at high risk for failure or dropping out transform themselves as learners through technology. They often come in before and after school to complete projects - aspiring well beyond the minimum requirements. One former student, the day after being released from jail, stayed after school several hours a day for four days to finish his project.

REFLECTIONS

When I initially designed the Multimedia course I did it partially for my own interests and love of technology and to create a stimulating, fun learning opportunity for students. I didn't expect the course to gain the support and popularity that it has.   Now that staff, administrators, parents, and students see what can be achieved through technology, I say, "The sky is the limit!" Teachers will continue to collaborate closely and strengthen the respect of technology courses as a means to support and enhance student performance related to district learning outcomes and general academic success.