Standard 2

Artifact: A paper written for Human Growth and Development class

Date Experienced Completed: Fall 2009

Description: My artifact is a paper I had written for Human Growth and Development class at UW-Platteville. I was required to observe students at Shullsburg High School in the fall of 2009, and apply what I had observed to what I had learned in class.

Wisconsin Teacher Standard Alignment: I believe that this experience aligns with standard two - the teacher understands how children with broad ranges of ability learn and provides instruction that supports their intellectual, social and personal development.

While observing a high school physics class at Shullsburg high school, I viewed an example of how the teacher can vary her instruction to support the differences in intellectual development. The students had an assignment that was due that day, and many students struggled with the physics concepts that were taught the previous day. Because of the amount of questions, Mrs. Aird decided to go over each problem in the assignment in class. She made the comment that 90% of you are having a problem coming up with the picture that will help you figure out the formula. She used a concrete image to help solve the equations that the students grappled with. The teacher understood that the abstract equations were a formal operational way of thinking and were of a higher order level of understanding. She applied a concrete way of looking at the problem and gave the students a new skill in helping to solve the complex issues. As a future teacher this was helpful to me because it showed me that not all of the concepts I may teach may be understood the first time around. I will have to vary my instruction to help the students understand a difficult concept in a different way. I may have to alter my instruction not only on a class basis, but also individually, as each student has a different background of core knowledge to link the new idea to.

Mr. Lierman's style of teaching helps promote both the social and personal development of his students. Mr. Lierman does some direct instruction, assigns an in-class assignment that can be worked on and completed during class time but is not due until the next day. The students finish it quickly and have some free time to socialize prior to release. This helps to promote how important their social structure is at the high school level, and helps the students develop friendships and relationships that are positive and important. While allowing this socialization during class there is guidance and input from a respected adult, that is absent during their lunch hour or in between classes. I expect in my classrooms to allow some independent time at the end of class to allow students to complete an assignment and/or to socialize. I recognize how important it is to the student

to have peer relationships, and allowing some guided interactions in class helps to promote positive connections, that I would be able to monitor and help grow.

The personal development of students is also important in both the emotional and physical development. By varying instruction by using lecture, discussion and labs, the cooperating teachers were able to capture the learning styles of all the students. Some of the students excel at individual work, by reading and completing their own assignments. Other students do better at the labs, working with groups and working with their hands. And I can also see some students enjoy learning through discussion. Although not all students participate in discussion, as long as they are paying attention, they are still learning how the other students think, and learn to value others opinions and thought processes.

Mr. Lierman also allowed students choices. On a day he was going to be absent, he gave them the choice to study for lab exam, to use it as a study hall, or to watch a video he had taped on Cosmos. This allows the students to use a democratic environment to decide their course that day.

In my classroom, I will use a variety of models of instruction to help gain the most out of the lesson for all the students. I will use lectures, discussions and labs to help support their different levels of comprehension to support their development. I will allow individual and group work at differing times to support both their personal and social development. I will also use discussion as a way to foster additional knowledge, and skills for the student to be able to use in the real world.

UW - Platteville School of Education Knowledge, Skill and Disposition Statement Alignment: This experience best aligns with KSD1.b, Demonstrates knowledge of Students: The candidate displays knowledge of the typical developmental characteristics, learning styles, skills, interests, developmental backgrounds, and cultural heritages of students and is always aware of the broad ranges and variety present for each of these student characteristics and lifestyles.

Mr. Lierman makes it a point to know his students family make-up and culture. In his freshman biology class he has a student who is of Danish decent. He uses examples that relate to genetics in his discussion of what could be a prevalent genetic disease within that community. Another student of his is afraid of chickens, yet his family owns and runs a poultry farm. Knowing the background of his students helps him to tailor his lessons so they are relevant to his students. I will use this same strategy of bringing in the students backgrounds and apply it to their lessons, so the students can see that science has real-world and current applications in their lives.

Mr. Lierman and Mrs. Aird vary their instruction for each theme so that it incorporates a multitude of learning styles. Direct instruction as a base of knowledge with which to grow a more complex curriculum is how they structure their lesson plans. After direct instruction, they involve discussion

of the topic, using examples that are important to the students, and then they complete a lab that reinforces the main concept. Depending on the age level of the students, the teacher changes their level of involvement in the lab. At the lower age levels, the teacher tends to be directly involved, walks around, and keeps the students on task. Mr. Lierman guides the students through their first dissections of a worm. At the upper levels, the teachers let the students lead the lab, and the students come to the teacher for question. Mrs. Aird used a lab for physics to build a bridge. She gave the students a certain dollar amount for materials, a goal and a time frame. The student comes up with the bridge design and cost. This fosters continued independence as the student continues through his education. In my classroom, I will use those same tools to help guide the students into learning key concepts of scientific reasoning. I will guide my students in labs in the middle school, and gradually give them more independence to possibly designing their own labs to explain a phenomenon. This will allow my students to use their own knowledge base (schema) to create an experiment that should be a varied as their backgrounds are.

This experience also aligns with: KS3.c Engages Students in Learning

What I learned about teaching/learning from this experience:

I recognize it is important to vary the instructions. For students at the lower grade levels, direct instruction is the most tedious for them. It is difficult for them to sit still in their seats, and pay attention if the teacher is not engaging them in the lesson. Discussion of the topic as it relates to them is also important, or the student thinks why they need to learn this. I also understand that the educator is the facilitator to the ongoing development of the learner. The teacher needs to help the student gain skills that allow them to move onto independent learning, and that each student is very different in how they learn.

I also appreciate how important social development is to overall student development. As a teacher we are there to help guide them in appropriate choices, not only inside the classroom but outside. As I was sitting in the back of the room with my energy drink, a freshman student asked me if I was tired. I did not realize that even my drink of choice affected how the student viewed me. I learned that the teacher is also a model outside the content of the lesson.

What I learned about myself as a prospective educator as a result of this experience/artifact:

As a future educator, I will bring variety in my classroom. Science is an easier subject to allow variety, but it will be a challenge to create the right type of variety to ensure all students are able to learn the subject, and at the right time. I learned that I need to take into account the differences in their abilities to understand. At times I may need to re-teach a lesson in a different

way when the students are wrestling with a topic. I may need to go back to the basics and teach concrete methods, and build on those to move onto the more abstract ways of thinking. I also need to make sure I do not introduce formal operational thinking at too early an age. Build the foundation, and then work on the detail.

I also need to incorporate a social environment, where I can help guide students into positive choices in their lives even outside the classroom. I need to help them development appropriate ways to interact with their peers and adults and show respect for themselves as well.