Jasper woodbury paper essay



Ed Psych/Tch Ed 6030, FS08 Assignment #1 Analysis of Understandings in Jasper Woodbury Contributors: Meghan Branson Jason King Rachael Lawson Marcee Phipps September 23, 2008 Log for Adventures of Jasper Woodbury "Rescue at Boone's Meadow" We initially had four people in our group. We are writing the summary minus the fourth person because they completed the project on their own. [We watched the video and took notes] We all started to collaborate and read our main ideas we had written down.

Then we re-read the two questions we were to answer. We wanted to make sure we knew what it was that we were working towards. Meghan: Ok, so we're trying to figure out the quickest way to get the eagle from the field to Cumberland City, and how long it would take. Marcee read her notes. Jason read his notes. Rachael read her notes.

Meghan read her notes. [Meghan pulled out the things that everyone had in common and wrote them down.] Marcee: Let's figure out what the main idea is and get rid of the irrelevant information. [Everyone starts to piece through their information] Rachael: I don't think that we will need to know the information about how much money was spent when they ate the pizza. I also don't think we'll need the information about how the air flows over the wing. Jason: I agree.

Meghan: Me too. Marcee: I wrote down a lot of information because I didn't know what we'd need to solve the problem. Meghan: So did I. It was a little confusing because I was trying to write everything down. Jason: Ok, well we need to figure out the weight of the extra gas because you can only go 30 miles on 2 gallons.

It is 65 miles away, so we'll need extra gas. Marcee: True, and we need to figure out the difference in weight of the pilots so we can determine how much extra gas will be used. Meghan: I'm not sure we need to do all of that. I don't think that the weight would make too much difference on the gas.

Rachael: Maybe we should figure out the conversion of the weight of the gas from ounces to pounds. [Jason proceeded to go up to the front to try to determine the conversion from the computer.] Meghan: I am still trying to figure out what the distance is on the third part of the triangle. I know that it is 65 miles from Cumberland to Boones Meadow, and that it is 15 miles from the eagle to Hilda's gas, but I can't remember the formula to determine the third side. Marcee: It's 60 miles. Rachael: Yeah it's 60 miles.

The video said it. Meghan: Really. I'm not so sure. Jason proceeds to look up the formula for the area of a triangle.] Meghan: I don't think that's the right formula. Professor: You guys are definitely getting ahead of yourselves.

Meghan: Ok, well I guess I'll go with the 60 miles! Marcee: I think the best way to go the 60 miles is by car. It uses less gas. That's the reason why they mentioned the car and the gas station. [Each group member works on their own to determine the best way to solve the problem. There was a little bit of arguing and heated conversation to determine which method was the best.

Each person had their own ideas, and wanted to voice their opinion. Meghan stayed out of it.] Meghan (after not talking for awhile): This is what I think it is. I think it is going to be about 3 hours and 45 minutes to transport the eagle.

If they travel the 65 miles by plane and it takes 2 minutes to travel a mile, which is 130 minutes. Then, you travel 15 miles, and that also takes 2 minutes per mile to get the eagle to Hilda's by plane. You have to take 5 minutes to stop for gas. The final leg is going to be one hour of driving because the speed limit is 60 mph, and it is 60 miles. We also need to add on 5 more minutes of time to transport the eagle from the plane to the car. Overall it is going to take 3 hours and 50 minutes to transport the eagle.

Jason: That makes sense. Marcee: Ok, wait. Say it one more time. [Meghan repeats her solution as Marcee, Jason, and Rachael write it down to follow along.] Jason: Sounds good to me. Rachael and Marcee: Me too.

Analysis of Enduring /Deep Understandings For the second part of our assignment, we analyzed the enduring/deep understandings targeted in "Rescue at Boone's Meadow". Each participant researched different areas, or "Big Ideas" that the creators of "Rescue at Boone's Meadow" intended for students to learn. The Missouri Show Me Standards, Grade Level Expectations for Missouri, and the texts Understanding by Design and How People Learn were used as references to relate to these understandings. One important "Big Idea" discussed in this assignment is in the area of mathematics, critical thinking, and problem solving.

Our quest was to figure (1) the quickest way to move the injured eagle from Boone's Meadow to Cumberland City and (2) how long it would take. While watching the video, students are presented with the problem and all the necessary information needed to solve the problem. The challenge of problem solving comes when they have to, within their group, discuss

relevant sub-problems, present and argue their positions, and select among possible alternatives. There are several ways in which Jasper Woodbury's "Rescue at Boone's Meadow" tie into the Missouri Curriculum and is relevant to the classroom. When solving the problem, students are required to use mathematical reasoning, primarily methods focusing on distance, rate, and time. According to the Missouri Grade Level Expectations (GLEs), students should be able to solve problems using elapsed time (M1c).

The "Rescue at Boone's Meadow" project allows for this when students are required to figure out complex issues involving elapsed time – for example, estimating or figuring how long it takes to move from Cumberland City to Hilda's and then on to Boone's Meadow. It is also stated in the GLEs a necessity for students to have knowledge of basic Numbers and Operations (N3a, b, c, d) and be able to compute fluently and make reasonable estimates. The problem called for students to use basic number operations including addition, subtraction, multiplication, and division. "New developments in the science of learning emphasize the importance of helping people take control of their own learning" (Bransford 12). When given the challenge to solve the problem of "Rescue at Boone's Meadow", students are taking control of their own learning.

They are not given specific steps or methods to take to reach the solution, nor are they being told what skills are required. Success of the students relies on their ability to problem solve, reason mathematically, and think critically. They are essentially taking control of their own learning and using their background knowledge to piece together relevant information. Solving

the complex problem of "Rescue at Boone's Meadow" also challenges a student's knowledge vs. actual understanding.

"To understand is to have done it the right way ... being able to explain why a particular skill, approach, or body of knowledge is or is not appropriate in a particular situation" (McTighe 35).

Students have the wide knowledge base of information necessary to reach a logical solution for Emily and Jasper. The challenge of knowledge vs. nderstanding comes in when students must "sift" through their own body of knowledge in order to use only the most appropriate skills required to solve the problem. Thus, it is explained how problem solving and critical thinking are necessary to effectively rescue the injured eagle at Boone's Meadow. According to How People Learn, active learning is when "people take control of their own learning...and must learn to recognize when they understand and when they need more information" (Bransford 12).

Communication plays a key role in active learning, and is another one of the "Big Ideas" of the "Rescue at Boone's Meadow" activity. Students are assigned to a group and everyone pools their thoughts and understandings to obtain more ideas and information to build their own theories. They then get a chance to actively participate in the activity, which is a skill used in Stage 3 of the Backward Design. As described in the book Understanding by Design, key questions are addressed, such as "what enabling knowledge or skills...activities...materials...and resources...will the student need to accomplish goals and achieve desired results?" (McTighe 18-19). Based on the Show Me Standards and the Communication Arts section 1 and 4, a

student should have the ability to speak and write Standard English, and write formally and informally.

In order to write their conclusions, groups would have to be able to take notes, write a narrative or report and use proper grammar, punctuation, etc. Also, in section 5 and 6, students should be able to comprehend and evaluate presentations, and participate in formal and informal discussions of the ideas. This is one of the main ideas of the Jasper Woodbury project – to discuss different ideas with peers and how to solve the problem presented. Similarly, Grade Level Expectations for middle school children include developing and applying effective listening skills and strategy (L1a, b), effective speaking skills (LS2a), and effective research process skills to gather, analyze and evaluate information (IL1a, b, 2a).

In other words, communication is a key component in this activity. It is one means of achieving the desired result of bringing real life problems into the classroom and having students actively participate to acquire an outcome. Lastly, we discussed metacognition. Metacognition refers to self-knowledge about how we think and why, and the relation between our preferred methods of learning and our understanding {or lack of it} (McTighe 101). "Another way of explaining metacognition is " the ability to monitor one's current level of understanding and decide when it is not adequate (Bransford 47). "We discussed in lecture that metacognition is thinking about your thinking.

We decided that metacognition was a "Big Idea". Each member of the group took their own notes on the video and read over them. Then we clarified the

questions to be addressed. In the end we did a metacognition process. First we "weeded out" the unnecessary information.

This made us initially think about our original thoughts of the video. This forced us to decide which part of our notes would be essential in forming a conclusion. How People Learn states, "Teaching practices congruent with a metacognitive approach to learning include those that focus on sensemaking, self-assessment, and reflection on what worked and what needs improving (Bransford 12). "As a group we self-assessed and reflected; two of the important steps included in metacognition. Another part of the metacognition process was to think about how we were solving the problem. Using the material and information presented to us, we determined if what we were working through was the best solution.

We had to compare one answer to the next, and see if there was one that was better than another. Overall, metacognition was deeply involved in the process of coming to a conclusion. Individually and as a group, we had to think reflectively, or think about our way of thinking. It was definitely interesting to reflect on what steps we took. Analysis of Actual Learning At the start of the group assignment, each of us introduced ourselves by telling the others who we were and what we taught. From the introduction, we found out that the group consisted of 1 elementary, 1 English, and 1 Social Studies teacher, and 1 Music Therapist.

No one had any prior knowledge on flying or any flight experience. Meghan took charge and became the group leader. She asked us to share our notes to the group so that we could figure out what were working towards. We read

what we wrote down and tried to figure out what was the main goal of this assignment. In fact, we asked Professor Keefer for some advice on the assignment but it did not help. At this moment, frustration set in and people started to argue with each other.

Several of us stated that this assignment did not make sense. We did not give up on the experience but you could see that people were very confused. For example, some one would think that they solved the problem when others would bring up another point from their notes. All of a sudden, we would stop and go back to where we began to find out if we missed something in the problem. For most of the 75 minutes, we felt as if we were running in circles and getting nothing accomplished. According to our book How People Learn, "When viewing videotapes, the information noticed by novices can be quite different from what is noticed by experts (Bransford 36)".

Obviously, we were all novices with this problem and had little prior knowledge to work with. Therefore, we took much longer solving this problem because we were looking at it differently than someone with this knowledge base. How People Learn also states, "Expert knowledge is not simply a list of facts and formulas that are relevant to their domain; instead, their knowledge is organized around big ideas (Bransford 36)". As novices, we could not make connections with our information to be able to efficiently solve the problem. The only evidence that shows that we actually learned happened toward the end of the experience.

Meghan was using metacognition skills when we started to argue with each other. She was quiet for some time; then from nowhere, she interrupted and explained her answer to the problem (the light bulb went on). After she explained her thinking, we tested what we wrote down, finally agreeing with her. In our opinion, both the classroom and this assignment were not learner-centered. We say this because the book How People Learn states, "Teachers in a learner-centered classroom pay close attention to individual progress and device tasks that are appropriate.

Teachers present students with " just manageable difficulties"-that is, challenging enough to maintain engagement, but to lead to discouragement (Bransford 23-24)". In hindsight, we believe that this assignment was trying to serve the above point. Professor Keefer was trying to prove that prior knowledge and a person's background is important when solving a problem like the Jasper Woodbury Experience. To conclude, teachers should not assume that everyone is an expert on a subject matter. Works Cited Bransford, John D. et al.

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