

EDU 330: Sample for “*Addressing Metacognition in the Classroom*” assignment

1. Below is an example lesson plan obtained from:

<http://www.csun.edu/~hcedu013/plans.html>

TITLE: Simulation - Oregon Trail

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GRADE LEVEL: Appropriate for Grades 5 - 8

OVERVIEW: The students will gain knowledge and appreciation of life in the United States in the mid 1800's.

PURPOSE: The students will develop research techniques, decision-making skills, writing skills and interpersonal skills.

OBJECTIVE(s): The students will:

1. Research life in the United States in the mid 1800's
2. Discuss the social, political and economic situation in the United States in the 1800's
3. Compare and contrast life in the 1800's with life in the 1990's.
4. Work on the computers in co-operative groups on the program, The Oregon Trail.
5. Evaluate different alternatives before making decisions.
6. Keep notes in a journal.
7. Research diseases that were rampant in the 1800's.
8. Write and illustrate letters.
9. Demonstrate good map skill.
10. Create and compute math word problems using information from the computer simulation.
11. Learn songs relating to the 1800's.

RESOURCES/ MATERIALS NEEDED:

resource books, maps, computers, journal sheets, map paper, markers, highlighters, "The Oregon Trail", "The Children's Writing and Publishing", songbook "Touch of the Past"

ACTIVITIES:

1. Research the mid 1800's in cooperative groups.
2. Discuss as a class the social, economic and political situation during the 1800's.
3. List the pros and cons for life in the 1800's and life in the 1990's.
4. Work on the computer program 'The Oregon Trail' in groups.
5. Discuss the alternatives before making decisions on the trail.
6. Keep a journal while working on the computer program.
7. Research the diseases encountered on the Oregon Trail.
8. Write from the viewpoint of a settler who has just completed the long grueling trip.

2. Below are example responses that address the “*Critique*” section of the assignment

1. *Question: To what extent does the lesson plan/activity explicitly support students’ metacognition? For example, does the lesson plan/activity include “self-checks”? Does the lesson plan/activity explicitly include the teacher’s monitoring of student comprehension?*

Response: This lesson plan does not seem to explicitly include activities that directly support students’ metacognition, nor does the lesson plan directly discuss the role of the teacher during these activities. For example, one activity is, “Discuss as a class the social, economic and political situation during the 1800’s.” However, this lesson plan does not explicitly include support for students’ metacognition during this activity. In order to foster metacognition for this particular activity, the teacher could initially ask the students to discuss (either in small groups or as an entire class) what they think the social, economic, and political situation during the 1800’s. This discussion should occur prior to any instruction (i.e. playing Oregon Trail). Discussion prior to the use of Oregon Trail will assist students in identifying what they already know (and don’t know!) about these issues.

2. *Question: To what extent is the lesson designed to foster students’ motivation? Remember, motivation is an extraordinarily broad concept. Please be specific in your response. For example, does it foster self-efficacy? Extrinsic motivation? Intrinsic motivation?*

Response: The activities support many aspects of students’ motivation. For example, cooperative group work can often increase *self-efficacy*. Observing peers engage in academic work can often increase self-efficacy and cooperative group work can often serve as an excellent opportunity for students to observe peers. As such, the activity “Research the mid 1800’s in cooperative groups” may increase self-efficacy. Additionally, students’ *interest* and *extrinsic motivation* may be positively affected during their use of the game Oregon Trail. Using game-based technology, such as Oregon Trail, has been shown to increase interest in the topic. Furthermore, game-based technology that is based on points, progress, or other extrinsic rewards may increase student’s extrinsic motivation for the particular topic. As such, having students use Oregon Trail to explore “life in the United States in the mid 1800’s” may increase their extrinsic motivation for this particular topic.

3. *Question: To what extent is the lesson plan/activity consistent with one of the theories we discussed in the beginning of the semester? For example, does the lesson plan/activity begin with an anticipatory set (i.e. “attention getter” that introduces the topic)? If so, this aspect of the lesson plan/activity would be consistent with the Information Processing Theory (which highlights the role of attention and perception in the sensory store).*

Response: Piaget’s theory of Cognitive Development can be used to critique this lesson plan. This lesson plan was designed for students in grades 5 to 8 (i.e. students from the age of approximately 10 to 13). According to Piaget’s theory, these students would be in either the Concrete Operations stage (ages 7 – 11), or the Formal Operations stage (ages 11 and onward). In the Concrete Operations stage, the student

begins to be able to take other people's point of view, thus overcoming egocentrism. This ability (i.e. to take another point of view) is essential for the following activity in this lesson plan: "Write from the viewpoint of a settler who has just completed the long grueling trip." However, it should be noted that Piaget's theory suggests that students younger than 11 are limited to reasoning about events with which they are already familiar. This ability to reason with events in which they have not already experienced (hypothetic-deductive reasoning) does not surface until the Formal Operations stage. As such, students younger than 11 may have difficulty with some of the activities in this lesson plan because they ask them to reason about events in which they do not have experience.

4. *Question: What revisions would you suggest based on your responses to the above questions? Specifically, what changes would you make to the lesson plan/activity to better foster students' metacognition? What changes would you make to better increase students' motivation (again, be specific with which type of motivation)? What changes would you make to ensure that the lesson plan/activity is more consistent with a theory?*

Response: As identified in question one, this lesson plan does not explicitly support students' *metacognition*. One suggestion is to begin the lesson with an activity (group discussion, journal, etc) that provides the students with an opportunity to explicitly discuss what they already know (and do not know!) about life in the United States in the mid 1800's. In terms of motivation, this lesson plan could better student's sense of task value. Students (particularly younger ones) often see history as an abstract concept that has little or no relationship with current events. This disconnect often creates a sense that studying history has minimal value. It is important that the teacher explicitly draws connections between life in the United States in the mid 1800's and current events. For example, the teacher could discuss how events in the mid 1800's set the stage for our current political parties. As identified in question three, this lesson plan is relatively consistent with Piaget's theory of Cognitive Development. However, it should be noted children under 11 might have some difficulty reasoning about events in which they have not already experienced (at least according to Piaget's theory). As such, 5th grade teachers may need to provide additional scaffolding to assist their students in activities that require this type of reasoning.