

Technology Usage Assessment

Your Name: **Elizabeth Harrigan**

KITE Case Number: **3143-1**

KITE Case Summary:

In this activity, the Middle school teacher was teaching about genetics. He was attempting to show the relationship mathematically between the dominant and recessive traits. The students were able to do this through a program where they imputed their information about specific traits each of the students in the class had. The information was taken in through a database that a university gathered and then created a spreadsheet that was returned to the class. The University compiled not only an individual's schools data but several schools throughout the world allowing for 12,000 to 18,000 sets of data. The students were then asked to use Excel Spreadsheets and determine the ratios of the data to determine the dominant and recessive trait. They then had to answer questions that the database provided and create a report about their findings.

For each of the five categories below, provide a rating of the technology usage based on each factor in the category. Provide evidence in the form of brief examples from the case. Direct quotes may be used. If the case does not contain sufficient information for you to give a particular rating, indicated "UNKNOWN" in the Rating column.

Assessing Active Learning

Factor	Rating high-medium-low	Evidence Supporting Rating
Learner interaction with real-world objects	<i>Medium</i>	The students were able to interact with computers in the computer labs which are real world objects. There were no other objects that were mentioned that they interacted with.
Observation and reflection	<i>High</i>	The students were asked to interact with the data and then answer questions to reflect upon the data. They were asked to make observations from the data presented to them.
Learner interactions	<i>Medium</i>	The students were asked to manipulate the data to calculate the ratios of dominant to recessive.
Tool use	<i>Medium</i>	The manipulation of the data through the spreadsheet was learning "with" technology. Beyond the manipulation of data the remainder of the interaction with technology was not necessary for learning "with" but learning. The students could have hand wrote the report or typed it and it would not have enhanced their learning.

Assessing Constructive Learning

Factor	Rating high-medium-low	Evidence Supporting Rating
Dissonance/Puzzling	<i>Unknown</i>	The teacher mentioned that he thought the students were very excited about the project, but then mentioned that one of the student's favorite parts of the activity is learning about the other schools who participated in the activity. This really serves no purpose for the learning outcomes.
Constructing Mental Models and Meaning Making	<i>Low</i>	The students had to manipulate the data to get the outcomes desired, but this was not done routinely. It appeared they did this only a few times and the remainder of the project did not server the purpose of determining the correct ratios.

Assessing Intentional Learning

Factor	Rating high-medium-low	Evidence Supporting Rating
Goal directedness	<i>Medium</i>	The teacher mentioned that the students are very engaged in the activity and really enjoy it.
Setting own goals	<i>Low</i>	Goals and outcomes are not set by the students.
Regulating own learning	<i>Unknown</i>	Progress monitoring is not mentioned
Tool learning – how to learn	<i>Unknown</i>	The teacher did not mention if there was a discussion about how to learn, so my assumption would be low, but there may have been more discussions not mentioned.
Tool articulation of goals as focus on activity	<i>Low</i>	No goal setting by students were made and there was no connection between the activities and the goals of the teacher.
Tool technology use in support of learning goals	<i>Unknown</i>	Since goals were not created by the students, and I only believe there to be a goal set by the teacher, I am unsure how the goals were supported by the technology.

Assessing Authentic Learning

Factor	Rating high-medium-low	Evidence Supporting Rating
Complexity	<i>Medium</i>	The requirement for the activity had the students using formulas (math), technology (spreadsheets), and writing (report). The concepts were across disciplines, but only involved the single teacher. The teacher did not share this with the other teachers into
Higher-order thinking	<i>Unknown</i>	I do not know the types of questions that the students were asked
Recognizing problems	<i>Low</i>	The students were not asked to solve any problems developed on their own accord. They were just asked to interpret data.
“Right answers”	<i>Low</i>	The students were expected to come to the outcome of 3:1 ratio dependent to independent.

Assessing Collaborative Learning

Factor	Rating high-medium-low	Evidence Supporting Rating
Interaction among learners	<i>High</i>	The students were required to work in groups or partners to write their reports and answer their questions based on the data.
Interaction with people outside of school	<i>Low</i>	The activity allowed the students to learn about the other schools that had participated in the survey. Although the students did not actually interact, they did learn about the other schools.
Social negotiation	<i>Unknown</i>	I am unsure what the questions were posed to the students. I am unsure if the students had any need for negotiation.
Acceptance and distribution of roles and responsibilities	<i>Unknown</i>	The teacher mentioned that the students worked in groups, but there was no mention of student roles and making decisions.