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EDU 649 Technologies for Teaching & Learning

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The learning activity that I decided to design was to design a demonstration owl pellet dissection! The teacher will be performing an actual demonstration of the dissection and a virtual dissection of the owl pellet. The students will then dissect their own owl pellets by either using a real kit or virtually dissecting the pellet (their choice). The grade level for this learning activity is fourth grade and the subject area is science. I have outlined two learning objectives for this activity. The first learning objective is, “Given an owl pellet kit or a virtual owl pellet, the students will dissect the pellet and be able to label and arrange the bones onto a chart with at least 90% accuracy.” The second learning objective for this lesson is, “Given an owl pellet kit, a virtual owl pellet, and/or a word processor, the students will dissect the pellet and use that experience to explain the importance of owls in the food chain using valid research to support their claims.”

The two types of instructional methods that I have decided to incorporate into this lesson are demonstration and discovery learning. Demonstration is a type of instructional method where the teacher shows the students a procedure and/or a process. Some examples of demonstrations include showing students a chemical experiment, demonstrating how to act appropriately during class, demonstrating how the water cycle works, demonstrating how to read with expression, and so much more! Teachers can involve their students into the demonstration process so that the students are not simply just watching and listening to the teacher. For example, the teacher can demonstrate the water cycle by having students “act” as parts of the process. The second type of instructional method is discovery learning. This type of instructional method is learner-centered. The students use their prior knowledge and what they know to discover and acquire information through the process of discovery. In my lesson, the teacher will demonstrate how to dissect an owl pellet virtually and by using the kit. The teacher will include the students into the demonstration by asking questions and asking the students to predict what will happen as the demonstration is taking place. The students will then dissect their own pellets (virtually or with the kit) and find out what they uncover using the discovery learning method.

In order to see if my instructional methods are effective and appropriate for my learners, I used the “Methods Selection Checklist” (Figure 6-7). The first statement that caught my eye was, “Provides a high level on interactivity.” This is an extremely important part of my lesson because the lesson should be a combination of teacher-centered activities and student centered activities, not one or another. It should be an appropriate combination of the two to encourage a high level on interactivity between teachers and students. This is predominately why I decided to use demonstration and to use discovery learning. It is a combination of being both teacher centered and student centered. This, in turn, will help my students achieve the objectives of the lesson.

The two technologies that I have decided to use are the virtual owl pellet dissection website (KidWings) and a word processor. I selected the virtual owl pellet dissection website because it is an interactive tool that not only captures the attention of the students but also allows them to “become” scientists and discover what they can find on their own. It is easy, free, and accessible to all students and is an invaluable resource for this lesson. The second technology that I have chosen is a word processing program. The second objective of my lesson involves my students writing a short research paper discussing the importance of owls in the food chain. I would like my students to use appropriate search engines (that I have taught them prior to this assignment) to research valid information and type up a short research paper using the program Word. The students may add pictures/visuals to the paper if they choose to do so. I selected this technology because we are in a technological world where typing skills are going to be crucial in their future careers. It is important for them to not only practice these skills but the technology also targets various learning styles to make writing an easier process for the students.

To support the discovery method, students will complete a virtual owl pellet dissection using the website KidWings. The first step would be to have the student’s type in the IP address for KidWings(http://www.kidwings.com/owlpellets/flash/v4/index.htm). The first thing I would like the students to do would be to click on “Pellet Information.” The students will review what they have just learned by reading the information presented on the website. The students will then click on “Pellet Directions” to read how they will complete the assignment. The students will then click on “Virtual Owl Pellet” to start the activity. The students will then virtually dissect the pellet, finding rodent bones as they go along. They must place those bones in the correct order on the right hand side of the screen. After this is completed, the students will have a clear picture of the rodent that the owl ate! The students will print this picture out to show the teacher that they have completed the activity. The second technology is using the program Word. The first step for students is to research (using appropriate search engines) the food chain and support their reasoning as to why owls are important in the food chain. The students will write a short research paper on the program Word on the importance of the food chain. The students will type into Word their paper and import clip-art and pictures if they would like to. They will then print out their papers and hand them into the teacher.

**Assessment**

There will be three different types of assessment for this particular lesson. The first assessment will be a survey that the students will take online using the program SurveyMonkey. The survey will be asking them questions about their motivation level in using the two different technologies. This information will help me in seeing how motivation and academic success correlate to one another. It also gives the students a voice in their learning. The link to Survey Monkey is <https://www.surveymonkey.com/>

The second type of assessment will be used by the teacher to evaluate the different technologies in relation to the lesson. It is always important when incorporating new technologies to assess how they worked and if it truly did enhance student learning. I will be using the rubric for effective teacher technology use (based on the four domains of Danielson’s Framework for Teaching) to assess Word and KidWings for this lesson. The link to this particular rubric is <http://www.ascd.org/ASCD/pdf/journals/ed_lead/el201303_johnson_rubric.pdf>.

The last type of assessment that I will use during this lesson is an online test using the program ClassMarker. The students will take a summative test on the unit using this particular technology. This summative information will give me insight into student understanding of the material and will help me answer the question, “Where do I go from here?” The link to ClassMarker is <http://www.classmarker.com/>.

**Conclusion**

The learning activity of dissecting owl pellets will be successful in my classroom because I am using a combination of demonstration and discovery learning to support teacher-centered and student-centered activities. I firmly think that the technologies I have chosen will support the learning activity to help the students reach the objectives.

References

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