



## Assessing Technology Integration Experiences

### Overview

The Knowledge Innovation for Technology in Education (KITE) project seeks to develop a case library of technology integration stories that enable learning through sharing, communal understanding through storytelling, continuous exchange and creation of new knowledge, and collective problem solving. The stories or cases in the KITE case library are the shared experiences of teachers as they relate their technology uses in their teaching. Based on the discussions that we have had so far about the standards for technology use in education, you will search through the KITE case library to find cases that relate high quality uses of technology.

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### Objectives

- Given an instructional activity of evaluating cases (which are to be retrieved from the KITE case library), the learner will be able to reflect on cases based on their relationship to the NETS (Technology Standard) and the appropriateness of using technology in case situations.
- Given an instructional activity of evaluating cases (which are to be retrieved from the KITE case library), the learner will be able to suggest improvement strategies for better teaching and learning with technology.

### Activity: Assessing Technology Integration Experiences of KITE Cases

#### Assignment

Search through the [KITE case library](#) for cases that are of interest to you and choose a case to evaluate. You will be defending your choice to your peers in the discussion activity. When you find a case to defend, present the case information by providing information relating to the grade, subject and technologies used. Provide a short, one to two paragraph summary of the case. Do not use the case summary provided in the library.

Following your summary, write a detailed reflection on the case. Provide a rationale for your choice of cases. Why is this case a good example of using technology? How did the teacher appropriately use technology to meet learning objectives? How does this teaching experience relate to the NETS for teachers? Give examples from the KITE case you chose. Also remember that every situation has potential for improvements. Provide a description and rationale for changes and improvements that you think would better the learning experience. Use the "Find Similar Cases" link provided in the KITE case to find possible examples of how other teachers handled similar situations or taught similar topics. Include case numbers for cases that you use.

The following examples are two sample reviews of KITE cases. **The case you defend should follow a similar format.**



KITE case 1: [4094-1](#)

**Grade:** 1

**Subject:** Math

**Technology used:** Spreadsheets/Graphing tools

**Summary:** A teacher is required by the district to teach students how to write a survey question and the use of spreadsheets. The teacher decides to combine the two into an activity that has the students reviewing polls from USA Today, creating their own poll questions and then building graphs using spreadsheets. The students wrote their own questions and then spent the recess time asking other students the questions. The students were successful and were able to make comparisons with the data they all collected. The teacher assessed the students by making sure

that they followed directions, put the data into the spreadsheet correctly and by whether they could make comparisons.

**Reflection:** This case was a good example of the use of technology to enhance learning because it demonstrated how the teacher was able to bring in a real object (the poll questions from USA Today) and the students were able to create their own survey questions based on that real object. The technology used was simple, but was appropriate for the grade level of the students. It was a good way to introduce the students to the capabilities of the spreadsheet program. It also was a good way for the teacher to extend classroom activities involving graphing. The teacher reiterated the purposes of the different types of graphs and led the students through the decision-making process to help them decide the appropriate graph type for their purpose. Throughout the experience, the teacher provided support for learning and the technology use extended the students experiences. The teacher met the NETS for teachers in the area of Assessment and Evaluation by "us[ing] technology resources to collect and analyze data, interpret results, and communicate findings to improve instructional practice and maximize student learning". The spreadsheets were used to teach the students how to analyze the data they had collected and then communicate the findings by creating a graph representing the results.

**Suggestions for Improvement:** This case could be improved by using a rubric to assess the students. A rubric would allow the students to know exactly what they were expected to do and how they could accomplish the task. While the teacher discussed the expectations, a rubric was not mentioned. The teacher preparing ahead for this activity could also have improved the learning experience. If the purpose of the activity was to have more experiences with graphs, the teacher could have prepared a template in the spreadsheet program that would have made the activity run more smoothly. It seems that one whole 45-minute session was wasted with the teacher walking the students through the creation of their graph set up. The teacher was required to demonstrate the method for setting up the graph and then had to run around the room helping the students. With a pre-made template, the student down-time would have been reduced and the students would have been able to focus on learning more about graphs. In KITE case 6044-1, the teacher used Excel to create graphs of the cans collected for a food drive.



**KITE case 2: [8010-2](#)**

**Grade:** 11

**Subject:** Science

**Technology used:** Educational software/motion detector/overhead projector

**Summary:** After attempting several methods of teaching sophomore and junior level students various types of scientific graphs (distance vs. time, velocity vs. time, acceleration vs. time), the teacher finds a program that, in combination with motion detectors and student participation, greatly improves the learning outcomes. Students are able to use their movements, which are fed into the program from the motion detectors, to practice predicting how the graph should look. The teacher projects the graph on the wall and the students use the motion detector to determine how they should move their bodies to be able to create a graph that matches the sample graph. The teacher states that the students learned more in one day with this method than past students had learned in three weeks.

**Reflection:** In this case, the teacher is reflecting on past experiences that were unsuccessful and then relating how the students' success was improved by the use of technology. The teacher found a software program that was able to allow students to actively participate in learning. The students were able to test their ideas, see immediate feedback and then transfer that learned concept to the paper graphs. The teacher met the NETS for teachers in the area of Teaching, Learning and the Curriculum by "us[ing] technology to support learner-centered strategies that address the diverse needs of students". The motion detector activity allowed students to apply hands-on activities to assist them in learning a complex concept.

**Suggestions for Improvement:** The learning situation in this case could have been improved if there had been more flexibility in the software program. The teacher stated that the students were interested in experimenting even further with other types of graphs, but the program was limited with only a few pre-set graphs available. The teacher seemed to think that the students had the potential to learn much more using this type of learning activity, but was limited by the software. The lesson could also have been improved by conducting assessment of some kind. While it is possible that the teacher did do some assessment of the students' learning, it is not mentioned in the case. In KITE case 3164-1, the teacher does a similar activity, but improves the experience by requiring students to write a description of the movement for the motion

detector and then predict how the resulting graph will look. This gave the students the opportunity to extend their learning and provided an assessment of their learning.

**Discussion Topics**

Post/present the KITE case that you are defending. Include the KITE case number, subject, grade level and main technology used in the lesson. Provide a brief summary of the case.

- Why is your case a good example of using technology?
- How did the teacher appropriately use technology to meet learning objectives?
- Provide details/examples and relate your responses to the NETS.
- Discuss suggestions for improving the technology experience to fix problems that were encountered in the story or perceived weaknesses in the experience.

**Rubric for Assignment**

"A" range	Case review provides detailed information relating to the grade, subject and technologies used in the case. The report provides a detailed summary of the case. Reflection on the case is detailed and includes a rationale for the choice of case. The following questions are answered: Why is this case a good example of using technology? How did the teacher appropriately use technology and meet learning objectives? How does this teaching experience relate to the NETS for teachers? The report contains a detailed description and rationale for changes and improvements.
"B" range	Case review provides some information relating to the grade, subject and technologies used in the case. The report provides a brief summary of the case. Reflection on the case is somewhat detailed and includes a rationale for the choice of case. The following questions are briefly answered: Why is this case a good example of using technology? How did the teacher appropriately use technology and meet learning objectives? How does this teaching experience relate to the NETS for teachers? The report contains some description and rationale for changes and improvements.

"C" range	Case review provides information relating to the grade, subject and technologies used in the case. The report provides a brief summary of the case. Reflection on the case lacks details. The report contains some description and rationale for changes and improvements.
"D" range	Failure to complete assignment.