



MAKING AN IMPACT IN THE CLASSROOM: Teacher Experience with Reviewed NSDL Resources

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Project Overview

Our project examined phenomena and representations found in DLs for their alignment to national content standards and their instructional quality. “Phenomena” are real-world objects, systems, and events that provide evidence of key ideas. “Representations” are pictures, video clips, graphs, simulations, and analogies that can help clarify key ideas. The site contains reviews of and links to resources in six categories: 1) *Astronomy*; 2) *Biological Structure and Function*; 3) *Earth*; 4) *Ecology*; 5) *Energy, Force, and Motion*; and 6) *Matter*. The resources, which we have described and annotated to encourage their effective use by teachers, are now discoverable via nsdl.org and are also available at the PRISMS web site, prisms.mmsa.org.

Methodology

We invited middle school teachers in three states (FL, LA, & ME) to participate in a pilot study of the beta version of the PRISMS web site. Twelve teachers responded that they would like to participate in the pilot study. The evaluator contacted each by email and included the survey as an attached *Word* document. All twelve of the teachers selected written responses as their choice for providing their feedback on the PRISMS resources. Eleven teachers returned surveys for analysis.

Results

Teachers reported unanimously that their students responded very positively to the resources, that the resources provided strong support for their instruction, and that they would be very likely to use the PRISMS resources again in the future. They also either agreed or strongly agreed that the reviews—all accessible via nsdl.org or the PRISMS web site—were useful and that the resources were well aligned with their respective states’ science curriculum standards.

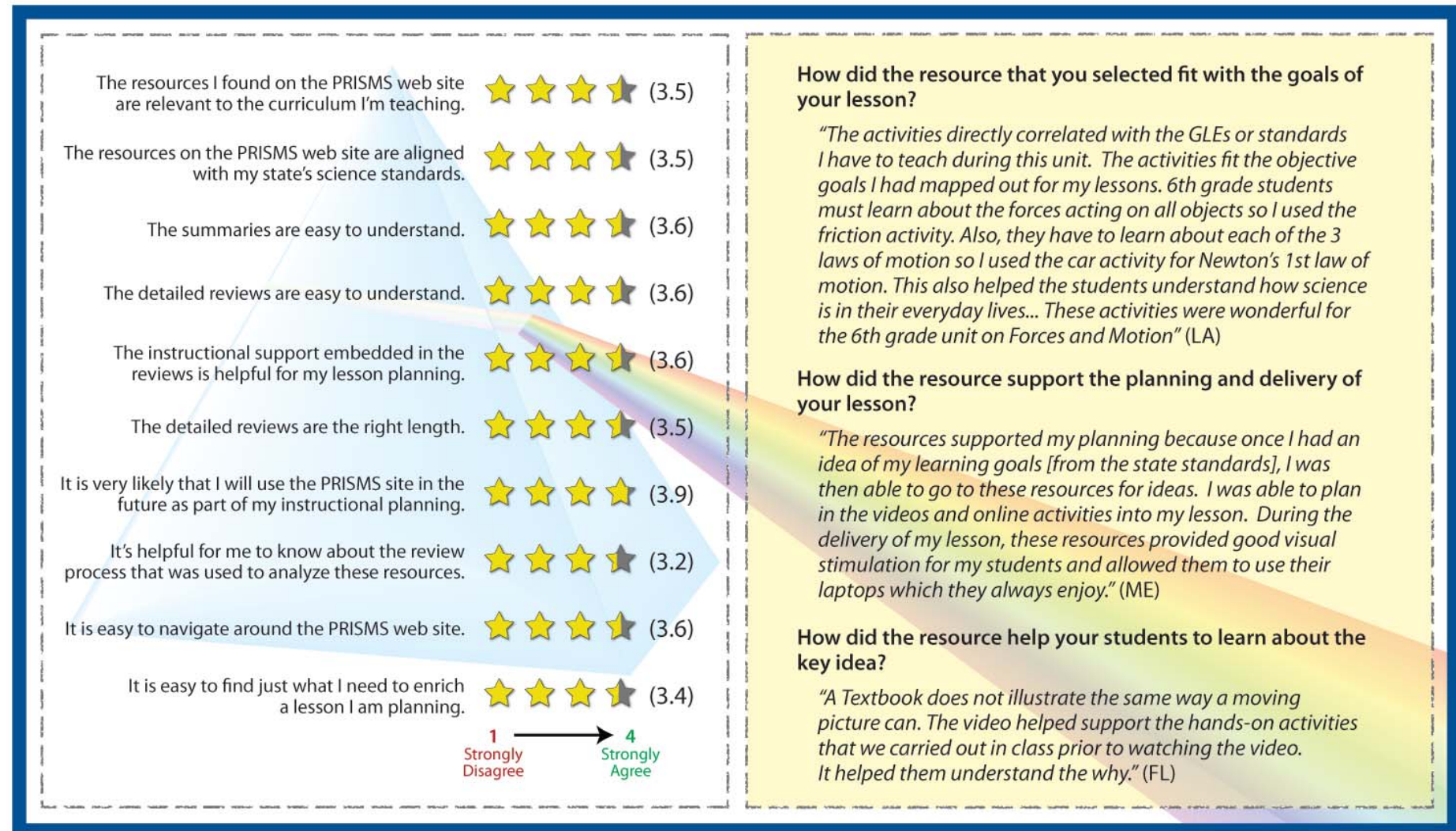


Figure 1. Teacher responses to ten Likert scale questions.

Figure 2. Some answers to extended-response questions.

How did the resource that you selected fit with the goals of your lesson?

“The activities directly correlated with the GLEs or standards I have to teach during this unit. The activities fit the objective goals I had mapped out for my lessons. 6th grade students must learn about the forces acting on all objects so I used the friction activity. Also, they have to learn about each of the 3 laws of motion so I used the car activity for Newton’s 1st law of motion. This also helped the students understand how science is in their everyday lives... These activities were wonderful for the 6th grade unit on Forces and Motion” (LA)

How did the resource support the planning and delivery of your lesson?

“The resources supported my planning because once I had an idea of my learning goals [from the state standards], I was then able to go to these resources for ideas. I was able to plan in the videos and online activities into my lesson. During the delivery of my lesson, these resources provided good visual stimulation for my students and allowed them to use their laptops which they always enjoy.” (ME)

How did the resource help your students to learn about the key idea?

“A Textbook does not illustrate the same way a moving picture can. The video helped support the hands-on activities that we carried out in class prior to watching the video. It helped them understand the why.” (FL)

Usability Considerations

Our testing showed that some teachers wanted to read the complete review, while others wanted a summary review, with the option of then reading the detailed review. This significantly impacted how we organized the PRISMS web site, and affirms the importance of the teacher evaluation component of this project.

Follow-up Project

AAAS Project 2061 has obtained a new Integrated Services grant to work with NSDL *Pathways* and collections in building capacity for determining the content alignment and instructional quality of their K-12 resources (NSF DUE 0840791). If you are interested in participating or would like to know more, please contact the PI: [Francis Molina, fmolina@aaas.org](mailto:fmolina@aaas.org).

