Appendix A

Screen Shots
NSDL Experimental Simulation Date Collection Instrument

NSDL Usability Study

Scenario and Instructions

Scenario: You are an 8th grade science teacher and your class is studying earth science. Your students have studied fossils and layers in the earth and your next lesson introduces plate tectonics and the movement of continents. You are trying to put together a lesson plan built with good online resources for your students.

Instructions: In this exercise, you will perform four tasks aimed at finding online resources that could contribute to such a lesson plan. For each task, start at your website. Spend the entire allotted time finding the best examples you can of the online resources described in the task instructions. For each resource that you are satisfied with, please copy and paste its web page's URL (web address) in the box titled "Resource Web Page URLs." Please also write the title of the web page in the box titled "Resource Web Page Titles." If in the allotted time you have not found any resources that you are satisfied with, please write "No Resources Found" in the first box.

When a task's time has expired (as indicated by the study administrator), please click "Submit Resources" and move on to rate the tasks and results. When all four tasks are complete, you will answer a few final questions and then submit the exercise.

Page 3

Figure F.2 NSDL Usability Study: Scenario and Instructions

NSDL Usability Study

Fossils Practice Task

We'll start first with a quick practice task designed to familiarize you with the process of finding educational materials on your assigned website. You have 5 minutes for this practice task.

1. Open a new browser window (e.g., in Firefox or Internet Explorer) and go to your website.

2. Starting from this website, find some instructive material about fossils appropriate for 8th graders. This can be an image, some explanatory text, or both — anything that fits the request.

Please note that the website you have been assigned is a portal to other websites and content. While you should always start at the assigned website, the resources you ultimately find may be from linked sites.

3. Once you have found a web page about fossils, please copy the web address (URL) into the box below on the left. The web address will almost always begin with http:// and can be found at the top of your browser.

4. Add the title of the web page in the box below on the right.

5. Then click the "Next" button.

1. Resource Web Page URLs
(write each URL on a new line)

2. Resource Web Page Titles
(write each title on a new line)

Page 2

Figure F.1 NSDL Usability Study: Fossils Practice Task

NSDL Usability Study

Questions About Finding Text/Images

1. How hard or easy was it to use this system to locate these resources?

	not at all easy		somewhere in between		very easy
Choose:	(	(	(	(	(

2. How helpful were the search tools for zeroing in on the right resources?

	not at all helpful		somewhere in between		very helpful
Choose:	(	(	(	(	(

3. How do you feel about the amount of time it took to find these resources?

	not at all quick		somewhere in between		very quick
Choose:	(	(	(	(	(

4. Do you think there were enough good resources from which to choose?

	not enough good choices		somewhere in between		very many good choices
Choose:	(	(	(	(	(

5. How satisfied are you with the experience of finding plate tectonics images and text, and with the search results?

	not at all satisfied		somewhere in between		very satisfied
Choose:	(	(	(	(	(

6. If you have additional comments, enter them below. Also, please wait for the administrator's announcement before moving to the next task.

Figure F.4 NSDL Usability Study: Questions About Finding Text and Images

NSDL Usability Study

Task 2: Finding Interactive Resources

Task 2: Go to your assigned website and spend 10 minutes finding
(1) a good video or animation that illustrates to students the concept of plate tectonics, and
(2) an interactive activity that students can do, either online or in the classroom, to reinforce any of
these concepts.

Note that there are two sets of answer boxes: one for the video/animation and one for the activity.

Remember, please stay on this task until prompted to move on by the administrator.

**1. Resource Web Page URLs for Video/Animation
(write each URL on a new line)**

**2. Resource Web Page Titles for Video/Animation
(write each title on a new line)**

**3. Resource Web Page URLs for Interactive Activity
(write each URL on a new line)**

Figure F.5 NSDL Usability Study: Task 2

NSDL Usability Study

4. Resource Web Page Titles for Interactive Activity
(write each title on a new line)

Figure F.6 NSDL Usability Study: Task 2, Continued

181

NSDL Usability Study

Questions About Finding Interactive Resources

1. How hard or easy was it to use this system to locate these resources?

	not at all easy		somewhere in between		very easy
Choose:	○	○	○	○	○

2. How helpful were the search tools for zeroing in on the right resources?

	not at all helpful		somewhere in between		very helpful
Choose:	○	○	○	○	○

3. How do you feel about the amount of time it took to find these resources?

	not at all quick		somewhere in between		very quick
Choose:	○	○	○	○	○

4. Do you think there were enough good resources from which to choose?

	not enough good choices		somewhere in between		very many good choices
Choose:	○	○	○	○	○

5. How satisfied are you with the experience of finding plate tectonics interactive resources, and with the search results?

	not at all satisfied		somewhere in between		very satisfied
Choose:	○	○	○	○	○

6. If you have additional comments, enter them below. Also, please wait for the administrator's announcement before moving to the next task.

Page 8

Figure F.7 NSDL Usability Study: Questions About Finding Interactive Resources

NSDL Usability Study

Task 3: Finding Entire Lesson Plans

Task: Spend 5 minutes finding a good lesson plan to teach 8th graders about the Ring of Fire.

Remember, please stay on this task until prompted to move on by the administrator.

**1. Resource Web Page URLs
(write each URL on a new line)**

**2. Resource Web Page Titles
(write each title on a new line)**

NOTE: This was the task that was subsequently dropped.

Figure F.8 NSDL Usability Study: Dropped Task 3

NSDL Usability Study

Questions About Finding An Entire Lesson Plan

1. How hard or easy was it to use this system to locate these resources?

	not at all easy		somewhere in between		very easy
Choose:	(	(	(	(	(

2. How helpful were the search tools for zeroing in on the right resources?

	not at all helpful		somewhere in between		very helpful
Choose:	(	(	(	(	(

3. How do you feel about the amount of time it took to find these · resources?

	not at all quick		somewhere in between		very quick
Choose:	(	(	(	(	(

4. Do you think there were enough good resources from which to choose?

	not enough good choices		somewhere in between		very many good choices
Choose:	(	(	(	(	(

5. How satisfied are you with the experience of finding a ring of fire lesson plan, and with the search results?

	not at all satisfied		somewhere in between		very satisfied
Choose:	(	(	(	(	(

6. If you have additional comments, enter them below. Also, please wait for the administrator's announcement before moving to the next task.

Figure F.9 NSDL Usability Study: Questions About Finding an Entire Lesson Plan

NSDL Usability Study

Task : Bringing in the History of Science

Task: Spend 8 minutes finding materials (text) for students about how the theory of plate tectonics was discovered or a biography of the person who discovered it.

Remember, please stay on this task until prompted to move on by the administrator.

1. Resource Web Page URLs
(write each URL on a new line)

2. Resource Web Page Titles
(write each title on a new line)

Figure F.10 NSDL Usability Study: Task 3

NSDL Usability Study

Questions About Bringing in the History of Science

1. How hard or easy was it to use this system to locate these resources?

| not at all easy | | somewhere in between | | very easy |

Choose:

2. How helpful were the search tools for zeroing in on the right resources?

| not at all helpful | | somewhere in between | | very helpful |

Choose:

3. How do you feel about the amount of time it took to find these resources?

| not at all quick | | somewhere in between | | very quick |

Choose:

4. Do you think there were enough good resources from which to choose?

| not enough good choices | | somewhere in between | | very many good choices |

Choose:

5. How satisfied are you with the experience of finding historical content about plate tectonics, and with the search results?

| not at all satisfied | | somewhere in between | | very satisfied |

Choose:

6. If you have additional comments, enter them below. Also, please wait for the administrator's announcement before moving to the next task.

Page 12

Figure F.11 NSDL Usability Study: Questions About Bringing in the History of Science