

Terry Turner
ILS655 Assignment-Digital Library Project Review Paper 01
February 6, 2011

I. Project Background:

Pedagogy in Action (<http://serc.carleton.edu/sp/index.html>) is part of the National Science Digital Library (NSDL), funded by the National Science Foundation Division of Undergraduate Education. The digital library is hosted by the Science Education Resource Center (SERC) at Carleton College (Northfield, MN). The library is also sponsored by the National Association of Geoscience Teachers. The materials available through this digital library come from collaboration with many individuals willing to share their ideas and articles on science education.

SERC began providing this digital resource and materials sharing site in 2007 to promote critical consideration of teaching practices by educators, especially those in the sciences, and to support them in developing, researching and improving their practices. Partner organizations can integrate the digital library into their own websites and also contribute materials to the collection. Individuals may also contribute materials, lesson plans, activities and articles that they have developed. Although the site is open to all and refers to educators generally, the resources are primarily aimed at the university level.

II. Organization of Resources:

The site divides its content into three areas: Teaching Methods, Activities, and Research on Learning. Within these pages the subjects are broken down again with resources, annotated and attributed. The Pedagogy in Action library estimates that it has over 30 different teaching methods and over 700 examples of their use. They note that the

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original collection of activities was intended for the geosciences, and although these still remain the bulk of the collection, examples from statistics, physics, biology and mathematics have been added.

III. Service Features:

As mentioned above, the library divides its content into three areas: teaching methods, activities, and research on learning. Although the entire contents may be searched at once through the ‘Search this site’ option, it appears that the organization allows for more useful browsing and specialized searches.

Teaching Methods: The What, Why and How, is a list of modules, organized alphabetically by subject. The intent is to present teaching concepts for use in the classroom. The concepts are presented first on the Pedagogy site in simple description, with further details and links for the user to explore in depth. It is not always immediately clear to the user where these links will lead. Sometimes they lead to another site with increased detail, sometimes they simply clarify a reference.

Activities: Direct from the Classroom, is organized with a search engine as well as a subject list (eg: English, Fine Arts, Physics). It is possible to search within each of the subjects, although it may not be immediately clear to the user that they have limited their search subject. A sample search on the words “extreme microbes” in Activites, within the subject Biology, produced a lesson plan “Investigative Case - Protistan Tales of Atlantic White Cedar Swamps.” If the search produces no results, the search engine offers both

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‘New Search’ and ‘Help with Searching.’ Personally, I liked the wording below Help with Searching which asks, “This search tool not working as you like/expected?”

Research on Learning is also organized with a search engine and subject list. Web resources selected provide a citation, brief description, and a link to the material. The presentation of the resource is initially a bit confusing, with a box provided to the right, which directs the user to the source of web materials which reference the article/material. The link to the actual resource is larger and should (in theory) be more obvious, but could be overlooked as part of the title, rather than the location of the linked resource. Also of note, Research on Learning is not exclusively web resources, including abstracts for print materials as well. So this digital library does not intend to be the sole source for educators, but also provides an index for materials for further research.

Individual contributors enter their projects and information in a web based editing interface that allows contributors to save and edit their work before submitting it to a SERC staff member (or another responsible person) for final approval and uploading it for public access. After it is available to the public, the content author is able to make edits or further develop the content, again with the final live version approved by staff.

SERC retains control over the Pedagogy in Action digital library, maintaining the

IV. Technologies:

Technologies involved, including interface design, software structures, hardware components, system or database interoperability.

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The Pedagogy in Action digital library uses the SERC Content Management System. This particular system allows partner sites to customize the view of the digital collection to match their own site, integrating the materials smoothly into their own system. The system also allows individuals to contribute materials, ideas and projects for use and adaptation by other communities while receiving credit for their ideas.

V. Comments:

Two advantages of the Pedagogy in Action digital library are largely a function of its flexibility. The ability to incorporate materials with attribution to creators does appear to encourage copyright holders to share their work. The ability to incorporate the Pedagogy in Action digital library into partner sites allows other sites to collaborate without losing their own independence. The requirement for staff/responsible persons to approve additions to the collection appears to keep the quality of the information high. Materials are organized thoroughly and while exploring the library, I found no dead links.

Although I did not find the site intuitive, I actually began to like the three prong organization. It appears very helpful for novice science educators at the university level, and as its collection continues to expand, it may become very useful for high school teachers as well.

One disconcerting aspect of the organization of this DL is that you can end up on the website for another organization without realizing that you are leaving the original digital library. For example, following a link for assisting in teaching science resulted in shifting to the Digital Library of teaching resources for the National Association of

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Geoscience Teachers website. While I think teachers will find it useful to shift to a more specific DL when they are focusing in on their subject of interest, it can be disconcerting to discover you are no longer in the larger DL framework.

I think the title “Pedagogy in Action: the SERC portal for Educators” is a bit vague for promotional purposes. A title emphasizing its science emphasis would have been helpful for promoting its use within the field. Unless the user already knows what SERC stands for, it may get passed over or used for inappropriate research attempts. (Admittedly, the target audience may take this acronym for granted.)

This particular digital library was helpful to me in distinguishing some of the features that digital libraries may contain, in contrast to online databases. The scope of this digital library includes organization and annotations of materials, the ability to share created projects (such as lesson plans) and develop groups of resources (defining subject areas and providing links for users to explore). Online databases may include many of the resources (articles, possibly even abstracts and references) but are unlikely to provide the organization or the collaborative aspects that this digital library promotes.

Works Cited

Manduca, Cathryn A., & Mason, Bruce. (2007). Pedagogy in Action: On-line resources for physics faculty and teachers. *Forum on Education of the American Physical Society, Fall 2007 Newsletter*. Retrieved from

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