Web-Based Performance Support for Evaluation
by
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Abstract

The Online Evaluation Resource Library (OERL) is a Web-based electronic performance support system for improving the evaluation of projects funded by the Directorate for Education and Human Resources (EHR) of the National Science Foundation (NSF). OERL provides prospective project developers and evaluators with material that they can use to design, conduct, document, and review evaluations. OERL contains examples of exemplary plans, instruments, and reports from evaluations of EHR-funded projects. It also contains criteria about good evaluation practices, professional development modules, and links to evaluation standards. Scenarios illustrate how the OERL resources can be used or adapted. Currently housed in OERL are 137 instruments, and full or excerpted versions of 38 plans and 60 reports.

Overview

To gauge the effectiveness of their funded projects, the Education and Human Resources Directorate of the National Science Foundation (NSF) requires that evaluations be conducted. A need exists to ensure that the evaluations are of high quality and that the evaluators are professionally competent. An additional need exists to build the capacity of principal investigators because they are being asked to include evaluation plans in their proposals.

The Online Evaluation Resource Library (OERL), developed at SRI International, is designed to meet this need by providing prospective project developers and evaluators with the support they need to design, conduct, document, and review project evaluations. OERL provides this support with a digital library collection, a set of online professional development resources, and search query tools. An attribute-based query tool allows users to carry out precise, targeted searches for specific resources in the OERL collection according to characteristics such as content area, project type, and name of sponsoring organization.

OERL's goals are to:

- meet the needs for continuous professional development of evaluators and principal investigators
- complement traditional vehicles of learning about evaluation
- utilize the affordances of current technologies (e.g., Web-based digital libraries, relational databases, and electronic performance support systems) for improving evaluation practice
- provide anytime/anyplace access to resources that support evaluators' needs and can be continuously updated with new content
- provide a forum by which professionals can interact on evaluation issues and practices

Statistics gathered between 1997 and 2000 revealed that OERL was requested 184,000 times. In addition to serving users in the United States, the site has been used by people in 28 other countries.

Digital Library

The collection contains full or excerpted versions of plans and reports from projects funded by NSF (and, in the case of some technology projects, by the U.S. Department of Education). It also contains data collection instruments such as survey questionnaires and observation protocols. The resources in the collection are organized by project area (e.g., Curriculum Development, Teacher Education) and resource type (e.g., plans, instruments, and reports). Through a review process, resources are selected that represent sound practices and display a wide range of characteristics. Over the course of its development, the OERL team has reviewed plans, instruments, and reports from 244 projects, and has selected 119 of them as contributors to the collection.

Professional Development Resources

Typically, people needing professional development in evaluation take courses or workshops and read scholarly books and articles that discuss evaluation from conceptual and theoretical perspectives. While very important, these traditional means of delivering professional development fall short for evaluation practitioners and principal investigators who are faced with immediate needs to plan for or carry out specific evaluations. These professionals need targeted assistance on specific methodologies, concrete step-by-step strategies, and models of how others in their field have carried out evaluations of similar projects. To support these people, OERL contains an additional set of resources for targeted professional development. They include:

- annotations and classifications of plan and report excerpts according to their key components, such as the project description, evaluation design, and data analysis process
- component-by-component criteria for appraising the quality of evaluation documents
- alignments between the criteria and the *Program Evaluation Standards*[1]
- professional development modules that present step-by-step strategies and interactive case studies on key evaluation topics such as formulating an overall design for the evaluation and developing survey questionnaires
- threaded discussions on evaluation issues and practices, as well as issues specific to NSF program areas
- scaffold-embedded templates and wizards for the construction of survey questionnaires and other evaluation materials
- pop-up dictionary of key evaluation terms that appear frequently on the site
- scenarios that explain how the OERL resources can be used or adapted

Figure 1 shows how the key resources of OERL fit together.

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[1] The Joint Committee on Standards for Educational Evaluation (1994). *The Program Evaluation Standards.* Thousand Oaks, CA: Sage Publications, Inc. All rights reserved. Approved by the American National Standards Institute as an American national standard. Approval date: March 15, 1994.
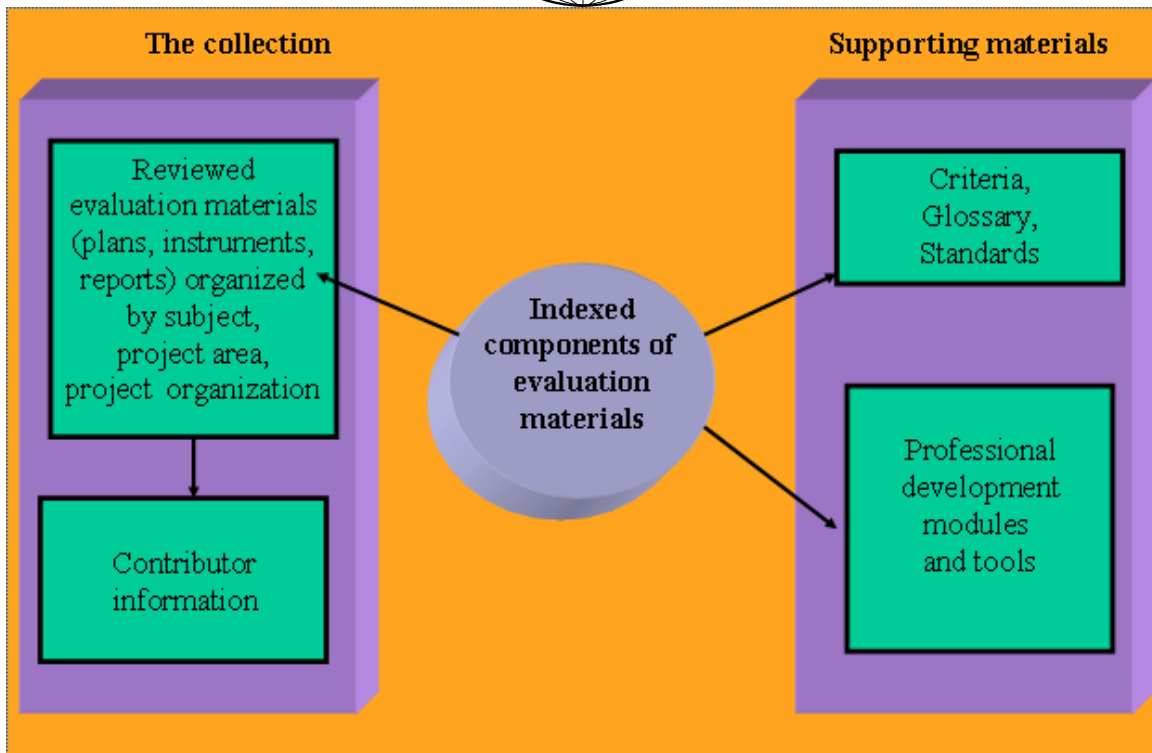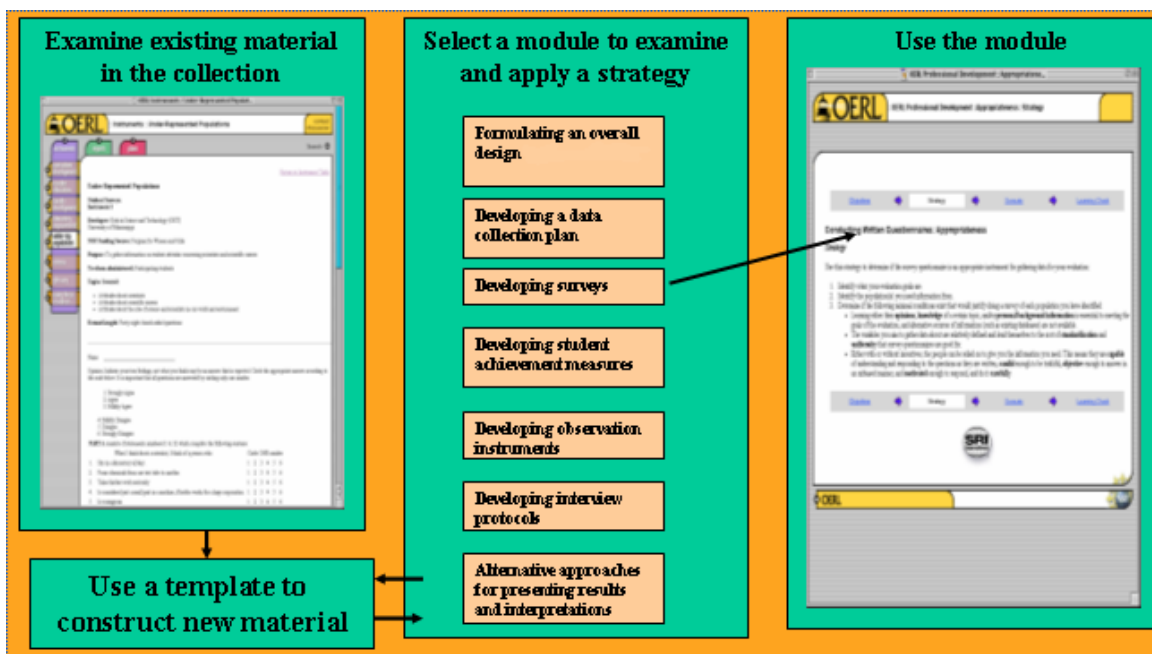
The collection | Supporting materials

Reviewed evaluation materials (plans, instruments, reports) organized by subject, project area, project organization

Indexed components of evaluation materials

Criteria, Glossary, Standards

Contributor information

Professional development modules and tools

Figure 2 presents a scenario of how a user can take advantage of the OERL resources as a performance support system.[2]

Examine existing material in the collection

Select a module to examine and apply a strategy

Use the module

Formulating an overall design

Developing a data collection plan

Developing surveys

Developing student achievement measures

Developing observation instruments

Developing interview protocols

Alternative approaches for presenting results and interpretations

Use a template to construct new material

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[2] The modules listed by title in Figure 2 are in various stages of completion. As of May 2002, some have not yet been posted.

User Testing

In order to get data from contrasting user experiences, user trials and interviews have been conducted with SRI evaluators as well as with individuals outside of SRI who have been evaluators or principal investigators. Trial formats used so far include:

- prior exposure vs. no prior exposure to the web site
- think-alouds (guided walk-through vs. self-directed walk-through)
- asking users to role-play different user perspectives

The issues addressed in the user trials include:

- ease or difficulty in navigating the site
- usefulness of written scenarios that provide examples of how to use the site
- quality of the plan, instrument, and report materials on the site
- usefulness of the search tools
- value of the site for varied audiences and varied purposes

So far, the results have supported:

- selective posting of materials based on their quality and variety
- inclusion of contributor information
- the practice of annotating plan and report excerpts
- the need for the attribute-based search tool
- making the site useful for varied audiences with different areas and levels of expertise in evaluation

Conclusion

By harnessing the power of the Web that comes through hyperlinking, information posting, authoring, and interactivity, OERL uses collections and professional development resources to help people who need help planning or carrying out project evaluations any time and any place. Given the varied needs of its varied audience, OERL's resources are designed to be used selectively and as needed.