The impact of reuse on authors, teachers, and students requires detailed data on reuse and repurposing of RLO. This data and the context in which they are used will be collected using surveys and follow-up interviews. Subjects will be identified from those accessing RLOs from Pathway partners. Additional information may be accessible via an LMS plugin being developed for this project.

Work on measuring reuse and its impact is required to develop effective reuse strategies. A supplemental project is measuring reuse and collecting data. Methods being employed include surveys and using web crawlers to discover reuse “in the wild.” Data will be compared with RLO characteristics such as size, education level and complexity. This will help identify frequently reused objects which can be studied to understand their success.

Bad or missing metadata inhibits reuse. Metadata is critical for finding, understanding, and using RLOs. Important Metadata to include:
- Basic descriptive (bibliographic) metadata
- Contextual information (grade level, audience)
- Technical information (required software/systems)
- User information (sources of documentation)
- Rights management (license, author, use rights)

Metadata is needed for all levels of granularity.

Don’t throw away your work - design for reuse and interoperability. Guidelines for reusable design are available at www.reusablelearning.org.
- Use standards to improve interoperability
- Define learning objectives
- Use a layered design
- Reduce dependencies
- Include source or editable versions

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Abstract
Reuse of learning objects is a core value proposition of digital collections. Data on reuse and repurposing are needed to evaluate how content in digital libraries is used, to understand the characteristics that impact reuse, and to make the case of continued support of the NSDL and other educational digital library projects. This project seeks to determine how often learning objects found through the NSDL/Pathways are reused and repurposed and how difficult these processes are for end users. Data will be collected by spidering selected collections, integrating with popular open-source course management systems, and through surveys of end users. The data will then be compared with factors such as resource size, education level, and complexity to determine the factors that affect the reuse and to investigate the impact of reuse on authors, teachers, and students.

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