VALE Shared Information Literacy Project
Final Report

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Submitted by

VALE Shared Information Literacy Project Team

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1. Purpose of the Project

In January 2003 the VALE consortium of academic libraries commissioned a team of four librarians from member institutions to spend the month working on a collaborative project. The project was intended to advance some of the goals identified in VALE’s 2003 Academic Year Strategic Plan [http://www.wpunj.edu/library/vale/Goals03.pdf] for the Shared Information Literacy Committee by addressing key issues involved in making information literacy learning and instructional materials available to all VALE librarians. The project team’s charge was to:

"Develop and demonstrate to the library community a process, a template, and at least one interactive web-based information literacy self-tutorial and related course material module that enables librarians or faculty, without HTML skills, to easily use and improve the material following open source standards. The material should be easy to modify and use; the examples should be easy to change and independent of brand logos and other formatting that may not be universal. It must also demonstrate the easy capability of inserting and deleting material and otherwise modifying the sequence of material."

By working through the issues involved in this charge it was hoped the team could provide both a set of recommendations VALE could use to foster the availability and creation of high-quality shared information literacy materials for academic libraries throughout the state and a useful product (in the form of a working tutorial).

2. Project Scope

The team endorsed the objectives to be served by exclusive use of open standards and open source software for shared information literacy (SIL) products and supporting tools. We agree the interests of VALE members would best be served by avoiding the incorporation of proprietary technologies into its SIL products. Reliance on proprietary, closed-source technologies would likely:

- oblige participating institutions to purchase and maintain licenses for the proprietary technologies selected; these can be numerous, costly, and not likely to be held by all VALE institutions;

- require that participating institutions support these technologies as part of their general IT infrastructure, representing additional costs beyond the licensing;

- require many end-users to download and install "plug-in" software on their home computers; in some cases such plug-ins might not be available and the applications will not work properly.

In practical terms, however, the New Jersey academic library community may not yet be ready to take advantage of materials and tools on an open source/open standards basis. A simple survey of team members revealed very limited experience with open source versions of several applications, including:

- operating systems (e.g., Linux, BSD)
• databases (e.g., MySQL, mSQL)
• text editors (e.g., GNU Emacs, vi)
• interpreted script programming languages (e.g., Perl, Python, Tcl, PHP)
• mail servers (e.g., sendmail)
• web servers (e.g., Apache)

By contrast, team members and their colleagues have considerable experience with proprietary versions of these applications from vendors like Microsoft (Windows, Access, Word, Active Server Pages, Visual Basic), Macromedia (Flash, Dreamweaver, ColdFusion), and Netscape (JavaScript). A broader survey of VALE member librarians may likely reveal a similar pattern. This is not surprising. In exchange for license fees, these vendors provide easy-to-use front ends for advanced tasks (something that has not yet been done for most of the open source applications). Librarians are often obliged to use software for which institution-wide software licenses have been purchased; as a practical matter licensed proprietary tools are the ones most widely supported on campus and are therefore preferred when sharing materials and collaborating on projects within an institution.

The team believes VALE member institutions would benefit by moving toward a greater commitment to open source software and open standards, including infrastructural support and the steady development of staff expertise in open source tools. Library staff empowered to collaborate on SIL material development would be in the best position to improve the quality of instruction; being in the closest contact with faculty and students they would be better able to implement improvements based on direct feedback from learners. VALE should utilize open source technologies and open standards to develop a web-based index to SIL materials and for the development of the materials themselves. With so little front-end development software available for open source technologies and given the time constraints of the project, it was beyond the team’s resources to build an easy-to-use tool for the modification of an interactive tutorial built with open source tools. We have therefore confined ourselves to:

1) Outlining the elements of an environment we believe will support the productive development and use of SIL materials among and beyond VALE’s member institutions;

2) Designing a plan for a tutorial that incorporates the desired features of shareability and easy use and producing a learning module (on the topic of understanding citations) that adheres to the design goals of the project but which is limited to the technical skills of team members.

3. A Shared Information Literacy Environment

The benefits of a statewide framework for creating a new generation of instructional tools available to all academic libraries include:

• a one-stop online location for identifying useful materials for information literacy instruction; regardless of their differences in format, lesson scope, etc., these materials will all have been designed for use in higher education and will cohere around the broad educational objectives held in common by all VALE institutions;

• a ready means of identifying colleagues working on similar instruction projects and challenges, facilitating contact and collaborative possibilities to spur development of new materials;
• the ability of all VALE members libraries to use materials created by other member libraries, to adapt and customize them for local needs, to make improvements to materials, and to resubmit them in a cycle of development; a related benefit would include the informal creation of a statewide division of labor for information literacy work in higher education, enabling a wider range of materials to be created and improved over a shorter period of time;

• progress toward the adoption of common standards optimal for the development, sharing, and use of information literacy materials across institutions and technology platforms;

• the improvement of information literacy instruction and learning throughout the state.

At the heart of this framework is the concept of shareability, encompassing a set of guidelines and practices VALE libraries can adopt to build a support system for the easier development and dissemination of information literacy tools among librarians and students in New Jersey and beyond. In its discussions, the project team defined the shareability of SIL materials in terms of the following sub-categories:

• Accessiblity
• Adaptability and Customizability
• Collaborative Development

Accessibility of Materials means:

• Permission to use all SIL materials provided to VALE will be granted under a VALE general public license; neither personal nor institutional copyrights will prevent other librarians from using or customizing materials;

• Locally developed SIL materials can be obtained from a single online location, a central index created and maintained by VALE;

• SIL materials will include appropriate metadata for indexing, including subject classification, material type, file formats, technical requirements, intended audiences, creator identification and contact information, etc.;

• SIL Materials will be offered under two categories:
  
  ➢ Fully shareable materials will be those that have met VALE’s specifications for optimal use (e.g., content structured according to open standards and usable without the need for proprietary software); following review by a VALE committee designated to ensure compliance with the requirements for optimal use, these materials will be stored in a single location and served to VALE members through the internet;

  ➢ Candidate SIL materials will be those that are submitted to VALE’s index for use by member librarians but which have not yet been prepared for optimal use or reviewed for compliance with optimal use standards; these materials will be stored at the institutions where they were created and made available to members through links in VALE’s central index; all candidate materials will be submitted to VALE through a standard submission form which will include:
Certification by the creator that the material can be provided under VALE's general public license and that personal/institutional copyrights will not infringe upon the ability of VALE members to use, customize, or further develop the material to meet the requirements for full shareability;

Guidelines for indexing so the item can be retrieved through VALE's search engine and appropriately placed in its directory;

The URL of the item at the local institution;

The submitter's electronic mail address and other contact information;

Date of submission

To ensure continuous accessibility for candidate materials, links in the index will be checked automatically on a regular basis; in the event of a broken link, the item will be temporarily removed from the index and the submitter contacted through the email address provided on the initial submission form - if the message cannot be sent, the index administrator will attempt to contact the institution and obtain the current URL.

• Fully shareable SIL materials will be created using open standards, including but not limited to XML (and applications specifically designed for learning and teaching materials, e.g., the Learning Material Markup Language framework); they will be in conformity with laws and regulations for user accessibility (e.g., the Americans with Disabilities Act and subsequent policy rulings pertaining to the provision of educational materials through the web); and they will seek to be compliant with other standards for the shareability of electronic-format educational materials that would enable such things as delivery through a wide variety of Learning Management Systems (e.g., the Sharable Content Object Reference Model [SCORM]). Proprietary standards and technologies requiring special licenses will not be employed for these materials; this requirement does not apply to candidate materials.

Adaptability and Customizability of Materials means:

Materials will be made available under one or more of the following conditions:

• For "as is" use – Fully shareable SIL materials can be used "as is" without customization; in such cases, the "logo" appearing on materials will be that of VALE; minimal customization

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2 The World Wide Web Consortium maintains a useful directory of links to Policies Relating to Web Accessibility that goes beyond the ADA in scope as part of its Web Accessibility Initiative at [http://www.w3.org/WAI/Policy](http://www.w3.org/WAI/Policy) [Retrieved January 26, 2003].

3 The Department of Defense’s Advanced Distributed Learning (ADL) Initiative released the first version of the Sharable Content Object Reference Model [SCORM] in January 2000, and two subsequent revisions have been released since then, with a third revision draft currently in process. An overview of the SCORM is available online at [http://www.adlnet.org/index.cfm?fuseaction=scormabt&cfd=4452&ctoken=10432163](http://www.adlnet.org/index.cfm?fuseaction=scormabt&cfd=4452&ctoken=10432163), along with complete documentation for the standard itself. [Retrieved January 26, 2003].
will include the option to apply local institutional logos and instructions/specifications for doing so (including in the manifest file for the item);

• With creator-provided customization (for high-end tools) - For complex materials (e.g., interactive web-based tutorials designed to provide multiple customization options), a back-end menu of programmed options will be provided for predefined levels and sections of the item. This customization tool will include the option to change and add content within the structure of the item, plus limited options for modifying the sequence of its component parts (e.g., as in the case of a multi-part tutorial). This customization option will not include the ability to change the programmed structure of the tutorial design, although such options may be increasingly possible as the modularization of content approaches the SCORM standard;

• For full customization - Users will have the option to change any part of any fully shareable SIL materials provided through VALE and will not be barred because of an inability to access proprietary programming code, etc.;

• For required customization or content-holding shells - Although neither of these types of material can be used "as is" (because they are incomplete), they can be edited by instructors with a minimum of technical knowledge based on a set of instructions:
  
  ➢ Materials requiring customization will provide general information literacy instructional content and provide spaces for the insertion of additional information and examples tailored to the circumstances of an individual institution (e.g., screen-shot images of its online catalog) or to the requirements of a specific course. These materials would be created to address general research or information literacy skills (e.g., catalog searching, locating articles in databases, searching the web, etc.) and instructors would customize them for specific local needs and contexts;

  ➢ Content-holding shells will provide a structure for the easy placement of instructional content into formats for electronic delivery. Such materials could include a package of templates for web-based tutorials and associated stylesheets for formatting content.

It is strongly recommended that data in SIL materials be structured using XML, where individual material types can be associated with XML Schemas or Document Type Definition files and Extensible Stylesheet Language stylesheets created for them. This would allow for the reusability of content in different document formats (word-processed text files, PDF, HTML, etc.).

**Collaborative Development means:**

• SIL materials should be developed using open standards and software tools that do not require the purchase of proprietary licenses, enabling the widest range of collaborative participation for librarians and other instructors throughout VALE;

• VALE SIL Committee members will be willing to serve as resources for technical and other issues that may arise in the course of a project; a sub-committee responsible for reviewing items submitted for approval as fully shareable SIL materials should also be formed;
• VALE will provide additional infrastructural support to facilitate collaborative development across institutions, including computer server/account space, software tools as needed, shared accounts, and guidelines for collaborative development for each SIL material type. In exchange for this support, the collaborators agree to work toward a version of their product that approaches all requirements for fully shareable materials but that need not be fully shareable upon completion;

• The VALE SIL Committee and VALE member institutions will develop support for training in open standard recommendations and open source technologies and tools, including sponsoring group training sessions.

4. Case-Study: A Web-Based Interactive Tutorial:

Keeping in mind the goal of shareability as an outcome for its work, the project team devoted most of January to the design and production of a web-based interactive tutorial; the instructional topic was “understanding how to read and write citations.” Among the SIL materials VALE’s Committee has discussed during the last year, web-based interactive tutorials are relatively complex in terms of the programming required to build and improve them. At a minimum such tutorials require skills in HTML coding, graphics editing, and at least one scripting language. A more sophisticated design capable of meeting VALE’s requirements for shareability would require additional features, including a database to store tutorial/assessment data (e.g., the open source MySQL); and a scripting language capable of interacting with the database to retrieve selected content and display to the web in the correct format (e.g., the open source PHP). Using more advanced programming tools (e.g., Java) and audio/visual content could further enhance the dynamic and interactive features of the tutorial.

A tutorial created to be shareable along the lines VALE has indicated should be “generic” in treating its subject matter while enabling librarians who use it to customize many of its parts. This presents several design challenges. Concentrating just on the learning module component of the tutorial (i.e., the content of our module about understanding citations), the team made the following choices:

• We would not write the module to emphasize any particular academic discipline, but as librarians or faculty may want to offer the module in the context of a given subject area it should be possible to customize the module so examples can be within that subject area;

• We would design the module to contain specific sections that follow a particular sequence and include a number of sub-sections treating citations in different contexts (e.g., in notes, bibliographies, etc.) and for different resource types (e.g., books, articles, etc.). Within these categories we will also use one or more specific examples. All of these aspects of the module, however, will be variables subject to easy modification;

• We would include more than one citation style in the module, but librarians who want to emphasize a particular citation style in both the reading/understanding and writing sections should have the option of limiting all examples to that style;
We would build the module following a modern instructional design approach[^4] to ensure that the major components – instructional goals, performance objectives, and assessment – received due attention and then analyze it for presentation through the web and for shareability, dividing it into coherent sections that would lend themselves to the customization options we envisioned.

In addition to the customization options, our design would offer librarians the opportunity to add new content to the module as a shared resource (e.g., additional resource types, examples, citation styles), enhancing its value over time.

To enable easy customization from the librarian's side (the "back end") and presentation of the tutorial to students (the "front end"), a self-contained tutorial should be viewed as having three basic parts:

<table>
<thead>
<tr>
<th>Librarian's Back end</th>
<th>Programmed Tutorial Content and Scripts for Deployment to the Web (stored in a database) - the learning module</th>
<th>Student's Front end Display of Tutorial Based on Selected Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customization/Development Interface (for all &quot;programmed&quot; options – using menus and forms)</td>
<td>-------&gt;</td>
<td>--</td>
</tr>
</tbody>
</table>

This simple sketch represents our understanding of the major relationships between the tutorial's content, its editing and control functions accessible through a menu-driven command interface, and its variable output to users based on an instructor’s selections. Given the project's time constraints and our limited access to programming expertise during the month, we are unable to go into great detail about other likely parts of the tutorial (e.g., the application programming interfaces needed to build its back end and front end). The following outline should therefore be understood as a rudimentary draft intended to address the key shareability issues discussed in the previous section:

**Tutorial Design**

1) Instructor's customization command interface (the back end):

   * The command interface will be a programmed application created to access and manipulate the learning module's content through a series of menus connected to the database in which that content is stored (see #2 below). At a minimum the command interface will allow individual instructors to select from a menu of pre-set customization options related to the presence or absence of content sections or examples and their arrangement within the tutorial. The command interface will also provide a means for instructors to add, modify, or delete content in the database. An additional programmed

feature should be the ability to create individually defined profiles for the storage of customized versions of the tutorial, accessible through unique URLs on the web or some other means, in which the commands and selections associated with a given profile are stored in the database.

2) Learning module content (including text, graphics, multimedia files, and programmable pages that can be presented through the web):

- Most of the module’s content will be stored in a relational database (e.g., the open source MySQL), so that it can be retrieved as needed and presented to instructors as options through queries or menus built into the back end; a collection of customization options selected by an instructor to create a specific version of the module can also be stored in the database;

- The database’s content will be structured through a series of programmable templates for display to the web; these templates will permit the control of content placement, navigation, and formatting, implementing the options selected by instructors through the back end command interface, and will likely consist of open source PHP applications and stylesheets;

3) User’s interface (the front end) – generated on the basis of the instructor’s selected options and input through the back end:

- The user’s interface will provide the output of the instructor’s customization options through the web and include features to meet as many learning styles as can be accommodated through programming. Although the tutorial will proceed through a sequence selected to achieve its instructional goals, learners will have the option to deviate from this sequence and access the tutorial at different points from both an initial index page and a navigation menu available on every screen. Assessment tools will be built into a module in the form of exercises and a summative quiz, with results available to the learner upon completion, and a feedback tool will also be provided for comments.

It is important to keep in mind that the program we have described above is intended to meet both the individual needs of librarian instructors without a wide range of technical skills and the collective needs of the VALE consortium for SIL materials that can be improved through a collaborative development process. No web-based tutorial requires the storage of its content in a database or a menu-driven command interface if an instructor has the skills to manually edit the tutorial. The problem with materials lacking these enhanced features is that they do not lend themselves to easy modification by instructors who do not have the required technical skills and they do not provide a ready means for the storage of optional content. Because development of a full-featured tutorial would demand a considerable up-front investment of resources for programming and testing, we believe its final design should satisfy a wide variety of SIL needs and that the final product should be regarded as a tool for the creation of learning modules on any information literacy subject.

a. Collaborative process and tools
What follows is a brief account of the types of tools and facilities used by the SIL team. Beneath the account are lists of required, and additional tools and facilities, as well as alternatives that we could have used.

**Account of the tools and facilities used in the collaborative process:**

Prior to addressing our charge, the team had to work out the logistics associated with a collaboration involving employees of four distinct institutions. Physical meeting space and technological needs were the first priority. In December Rutgers and NJIT offered the team library meeting rooms, and Rutgers provided space on a web server. At the same time the team prepared for the project by sharing links to existing online IL tutorials in order to create a frame of reference for our meetings in January. We then assessed our individual technological skills to determine the contributions each member could make during the design phase of the project. The team created a Yahoo “group” to plan our schedule and disseminate information. Yahoo Groups is a free tool that not only provides space to upload documents for shared use, but also generates calendar, a discussion list and more.

Physical meetings were critical in the early stages. They consisted of lengthy discussions of project goals and a deconstruction of the module into its component parts. Each meeting concluded with a distribution of tasks to be completed prior to the next meeting, and following meetings began with a review of the accomplished tasks. The assigned tasks in the development phase required more time and technology, so we decided we would work from our home institutions on occasion and use other means for discussion. This enabled team members to use the development tools of their choice. Each team member created an AOL Instant Messenger (AIM) account in order to facilitate discussion when at our own institutions. AIM is a free browser plug-in that enables members to conduct one on one chats. It can also generate private group chat rooms on the fly. By cutting and pasting the contents in the chat window to a text file, we were able to preserve the transcripts as meeting minutes.

**Tools and Facilities:**

**Required:**
The following list is composed of items that were required for developing the “Understanding Citations” module. Starred (*) items are deemed to be essential to any collaborative development.

- PC’s connected to the web
- Shared account on a web server – The Rutgers/SCC Linnux server
- File transfer software – the SSH client was required to reach the web server
- *Text editing software
  - Text Pad and Note tab are sufficient for creating text and HTML documents, as well as HTML stylesheets (CSS)
- *Meeting space (either physical or virtual)
- Communications technology

**Additional:**
While not essential in completing our task, the following items proved beneficial to the development of the module.

- Meeting space
Physical meeting space at both Rutgers and NJIT
Virtual meeting space via AOL Instant Messenger

Communications technology
- AOL Instant Messenger for one on one and group chats.
- Standard email communication
- Yahoo! Groups
  - Communicate with group via the discussion list
  - Files uploaded to the site generate a message to the discussion list

Computers
- Laptops for capturing notes during meetings
- Workstations in a computing lab for some collaborative development as a group, and at our places of work.

Image editing software – Paint Shop Pro, Adobe Photoshop
- Each team members used the software package that they were comfortable with and had access to at their home institution.

Word Processing Software – MS Word
HTML Editing Software – Note Pad, NoteTab Light, Dreamweaver, Homesite
- Each team members used the software package that they were comfortable with and had access to at their home institution.

Alternatives:
The following are items that could have been used in the collaborative process.
- MS Net Meeting
  - Has file transfer, audio and video conferencing, whiteboard and chat features.
- Conference calls.

b. Instructional design and analysis

Writing an instructional plan for the module on understanding citations, incorporating a set of instructional goals, performance objectives, and assessment tools to guide us, was the first item on our agenda. The team paid particular attention to the division of the module into coherent segments that would not introduce unnecessary redundancy or overlapping of content so the customization options we planned would be easier to implement. During the month we returned to this document several times, revising and adding to it as we came across problems and issues in the process of implementing it on the web. Our general approach was to treat the instructional plan as the authoritative guide for the module’s creation. The latest version of the plan is contained in a separate document we have inserted as an appendix to this report.

c. Outline of a shareable tutorial

As we wrote the instructional plan we attempted to define appropriate units for the module that would suit our intended customization options. With these units clearly defined, it would be possible to detail the customization options for each. For the sake of simplicity we elected to define the relationship between the module’s units in hierarchical terms, as “boxes within boxes,” although it would be possible to consider a different type of structure. We believe our units could be used for the design of other modules.

In our view, the module is consists of the following units:
• content sections
  • section elements, consisting of:
    • a script (text and graphics) and
    • illustrative examples
    • assessment questions or tasks (which may be tied to the examples)

Customization options may be selected by moving from the larger to the smaller units of the module, where prior selections condition subsequent choices:

1) Customization at the level of the module:

• selection of sections (toggle on/off)
• selection of section sequence (first, second, third, etc.)
• option to add a new section (should follow a set of simple instructions)
• option to select style format for all examples used in the module (specific to the citations module)
• option to customize the interface for a particular institution (add library logo, links, text, etc. in designated places to appear on the front end interface)

2) Customization at the level of the section:

• selection of examples and their related tasks and assessment questions (toggle on/off)
• selection of example sequence (first, second, third, etc.)
• option to add one or more new examples (should follow a set of simple instructions)

3) Customization at the level of the example and question:

• option to modify an existing example and question (should follow a set of simple instructions)

5. Conclusions

Our experience this month gave us the opportunity to consider a wide range of issues New Jersey academic libraries should address to accelerate the creation and ongoing development of a wide variety of information literacy materials. The academic library community can and should invest resources into the creation of tools able to conserve the combined knowledge and talents of its teaching staff.

Making information literacy materials shareable, however, involves more than just the work of programmers. A wide-ranging dialog needs to begin so working agreements in the three major areas of shareability we have identified in this report can be reached. We believe the likely and long-term benefits all VALE institutions will yield from having access to a rich collection of instructional materials optimized for accessibility, customizability and collaborative development will outweigh the short-term costs of re-orienting our institutions and staff toward a commitment to open standards and open source technologies.
Our tutorial offers one possible example of a shareable resource and a model for creating others. We offer it to the VALE community for criticism and constructive feedback. It is important that the key issues and practical problems of shareability be identified and debated as soon as possible so agreements can be reached. A supportive environment for shareability must be inclusive and welcoming of criticism.

The VALE Shared Information Literacy Committee is already organized to address the major issues we have raised in this report, and we respectfully propose that its sub-committees consider working on these issues within the framework we have outlined. Some suggestions:

- The Indexed Site for Shared Materials sub-committee should move forward with its survey of VALE institutions to gather contributions for a web-based index of materials already available for sharing. Initially these will all fall under our category of candidate materials, but making them visible in a single location will do much to clarify where our energy should be focused for the next phase of development.

- The Collaborative Development sub-committee should subject our proposals for collaborative development to critical scrutiny and develop a more thorough plan and process that could be used on a statewide basis. This plan could be a most useful resource for policy-making at each participating institution and a welcome tool for staff interested in working on development projects of any scale.

- The Standards and Protocols sub-committee should complete its work on a general public license for shared materials and move on to the many other issues that must be addressed to enable the creation of shareable materials and facilitate collaboration, including the classification of material types, an evaluation and recommendation of open standards for use in development projects, guidelines for the definition of fully shareable materials for each material type, standards for the customizability of materials, standards for documentation and instruction accompanying fully shareable materials, a process for the review of candidate materials, and several other tasks.

- The Assessment sub-committee should review the range of possible assessment tools for information literacy materials of each type and make recommendations on options and resources that individual librarians can use when designing shareable materials.

- The Technical sub-committee should undertake a statewide survey (technical skills inventory) to identify VALE librarians possessing expertise in various open standards and open source technologies who would be willing to assist the SIL committee in getting better acquainted with these tools (e.g., through training sessions), serving as advisors or consultants to librarians engaged in development projects, and reviewing candidate materials prepared for consideration as fully shareable materials. The sub-committee should also draft a plan for assisting librarians who want to become more competent in open standards and open source technologies for the purpose of creating SIL materials.

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I. Introduction and Motivation for the Learner
Learning objective: To engage the learners by giving them an explanation of why they need to know about citations.

<table>
<thead>
<tr>
<th>Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What are they?</strong></td>
</tr>
<tr>
<td><strong>Why do I need to know about them?</strong></td>
</tr>
</tbody>
</table>

- They are references to where an author got a piece of information.
- They allow you to know what kind of source the information came from.
- They also give enough information so that the item can be tracked down.
- Necessary in documenting one’s research, and they can allow one to find more information easily.
II. Setting the context of citations.
   Learning objective: Students will understand where they are likely to encounter citations.
   Performance Objective: Students will be able to identify from a list of sources which ones may contain citations.
   Assessment: The quiz afterwards can contain questions involving the kinds of places citations are likely to be found.

Where will you encounter citations?
- a. Within the body of a book or article. These are often called footnotes or body notes.
- b. In a bibliography or list of references at the end of a work.
- c. Searching journal indexes or book catalogs.
- d. Course syllabi and reading lists.
III. Description of how citations commonly function in detail.
Learning objective: Students will understand how citations are used by authors.
Performance Objectives:
  a. Students will be able to relate footnotes or body notes to their corresponding full citations.
  b. Given a footnote or body note, students will be able to locate full citations.
Assessment:
  a. Send students to a location on the web where a paper with hyperlinked note references is available, direct them to a particular note # that leads to a "subsequent" reference.
  b. Given a list of partial note citations and a list of full references in a bibliography the student should be asked to associated the notes with the references they are referring to.

How do citations usually function?

a. Footnotes and body notes are used by authors to give credit to the sources where they found information.

b. They will usually give partial information about the source and refer to a more complete record of the source that will be found within the bibliography of the work.

Look at the notes in the following examples.
They will refer to more complete citations in the bibliographies later in the work.

<table>
<thead>
<tr>
<th>Body note:</th>
<th>Interstellar travel is known to be safe and reliable. (Smith, p.34)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refers to:</td>
<td></td>
</tr>
<tr>
<td>Bibliography:</td>
<td>Bibliography</td>
</tr>
<tr>
<td></td>
<td>Smith, N. Astronavigation.</td>
</tr>
<tr>
<td>Footnote:</td>
<td>Interest in the design and construction of medieval armor began to rise in the United States during the 1970s under the influence of Brian Flax. 21</td>
</tr>
<tr>
<td></td>
<td>----------</td>
</tr>
</tbody>
</table>
Bibliography:

IV. What are the citations going to look like?

Learning objective: Students will understand the basic elements of citations within the body of a work, and citations in a bibliography.

Performance Objectives:

a. Students will identify the principal parts of a full or partial citation
b. Given an example of a full or partial citation, students will identify whether it is full or partial.
c. Given an example of a partial citation, students will be able to identify the other information (missing parts) they need to locate or cite the resource.
d. Given one or more examples of citations presented in contexts containing additional information (e.g., full index records, etc.), students should be able to distinguish the citation(s) from other information within the example.

Assessment: Students will be given questions asking them to identify the major parts of a citation. This can be done in a variety of ways both in the body of the tutorial, or in the quiz at the end.

A. Footnotes and body notes will contain some or all of the following information:

a. Author.
b. Title of work cited.
c. Page number or numbers.
d. Date published.

There are 3 types of footnotes and body notes that are most commonly used:

Footnotes:
Enter description here.
An example could look like this:
[Enter example here.]

Body notes:
Enter description here.
An example could look like this:
[Enter example here.]

Partial or incomplete notes:
These are often found in references within popular magazines or newspapers where the authors are expected to give complete citation information.
An example could look like this:
Bush cited a report of the International Atomic Energy Agency as his authority for his nuclear weapon warning. The IAEA issued a report in 1998 but it did not make any such assertion. Instead it said, "based upon all credible information to date, the IAEA has found no indication of Iraq having achieved its program goal of producing nuclear weapons or of Iraq having retained a physical capability for the production of weapon-usable nuclear material or having clandestinely obtained such material."
B. Bibliography and References
A list of sources often found at the end of a work or a chapter that gives full information about a source so that it can be found more easily by a researcher.

These will typically contain the following information:

a. Author.
b. Title of Work.
c. Publisher info.
d. Date Published.

<table>
<thead>
<tr>
<th>Bibliography</th>
</tr>
</thead>
</table>
V. Differences between citations for different publication types explained.
Learning objective: Students will be able to recognize what kind of source an item is by examining the parts of a given citation.

Performance Objective: Given an example for a full or partial citation, students will correctly identify the resource type from a list of choices.

Assessment: Students will be given a citation and have to identify whether it is citing a journal article, book or something else. Can be done both within the tutorial and in the final quiz.

What is unique about full citations for different types of publications?

Citations will commonly contain:
- Author.
- Title of Work.
- Publisher info.
- Date Published.

**Books**

**Articles**

**Other examples to add:**
Book chapters
Newspaper articles
Web sites
Email
Conference papers
Dissertations/Theses
Government Documents
Data Sets
ERIC Documents
VI. Writing Citations with Examples from MLA, APA and Chicago.

Learning objective: Students will understand that there are different citation style guides that their professors will ask them to use and will have a basic understanding of the differences in formatting citations with these guides.

Performance Objective: Given adequate bibliographic information from some source, students should be able to write a full bibliographic reference in a specific style.

Assessment: Examples are in the final quiz. ID’ing the parts of a citation whether through multiple choice, or through assembling a citations in a jigsaw puzzle format. Can be done either within the body of the tutorial or in the final quiz.

How do I Write Citations and what are these Style Guides I keep hearing about?

Style guides contain guidelines for writers that include information about the use of grammar, how to layout the physical form of a work and a systematic method for citing sources. The following section will provide you with examples of what citations should look like when written using the three main style guides.

Three style guides are used most often:
1. APA - American Psychological Association
2. MLA - Modern Language Association
3. Chicago Manual of Style

Continue to the next page to see a chart showing examples for some of the most common items you will need to cite in each style format.
(See example below.)

Example charts:

<table>
<thead>
<tr>
<th>Source Type</th>
<th>APA</th>
<th>Chicago</th>
<th>MLA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book</td>
<td>Insert example</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Article</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Web site</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

OR.

<table>
<thead>
<tr>
<th>Source Type</th>
<th>APA</th>
<th>Chicago</th>
<th>MLA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books</td>
<td>Author. Title. Publisher, date.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Articles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Web sites</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
VII. Assessment/testing ideas.
Examples of different kinds of questions that could be used.

Citation building exercises:
  Word jumbles – present the student with a jumbled citation and ask
  them to put the elements in the correct order.
  This can be done by asking them in a couple of ways:
  ♦ Picking the correct letter order for the pieces like from a multiple choice test.
  ♦ Dragging and dropping images of the elements into the correct positions if it can
    be done within ADA requirements.

Identifying parts of a citation:
  Show a citation & ask students to identify the different parts of it.
  Author, Title, etc.,

Show an incomplete citation and ask student to identify the missing parts.

Contextual Examples:
  Show a body note or a footnote – Have the student identify the kind of
  note and/or where they might come across that kind of note.
  Show a full citation – Have student identify what kind of resource it is
  Book, Book Chapter, Journal Article,
  Newspaper Article, etc.,

Questions about why one would need to cite a source.
  To give credit to an author/source.
  To allow their readers to find their sources.