

Where is Information Literacy in Life Sciences Outcome Assessment?

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Background Information and Study Rationale:

- ❖ A survey by Sinn⁵ found that most library instruction in biology courses was of the “one-shot” variety and students usually were not tested on what they had learned nor were they given the chance to evaluate the library instruction session
- ❖ A study by Ferguson et al⁶, in which students were evaluated on their information literacy skills (in the context of the ACRL standards), showed that they routinely overestimate their abilities in these various areas and so there is a need for assisting students in developing these skills
- ❖ According to Smith⁴, There are numerous reasons for taking a curriculum-based approach to information literacy:
 - Teaching information literacy across a given discipline “establishes context, meaning, and relevance for learners”
 - Different disciplines have different ways of organizing information - therefore embedding IL curriculum-wide will address such unique discipline characteristics
 - Many disciplines use unique information resources - thus a curriculum-based approach will entail the use of such resources

ACRL’s Information Literacy Standards for Science and Engineering/Technology³

1. “The information literate student determines the nature and extent of the information needed”
2. “The information literate student acquires needed information effectively and efficiently”
3. “The information literate student critically evaluates the procured information and its sources, and as a result, decides whether or not to modify the initial query and/or seek additional sources and whether to develop a new research process”
4. “The information literate student understands the economic, ethical, legal, and social issues surrounding the use of information and its technologies and either as an individual or as a member of a group, uses information effectively, ethically, and legally to accomplish a specific purpose”
5. “The information literate student understands that information literacy is an ongoing process and an important component of lifelong learning and recognizes the need to keep current regarding new developments in his or her field”

Universities Whose Biology Departments I Analyzed for this Study

- ❖ Tennessee Tech University
- ❖ Universidad de Puerto Rico, Mayaguez
- ❖ University of Alaska, Fairbanks
- ❖ University of Central Arkansas
- ❖ University of Maryland, College Park
- ❖ University of Michigan, Flint
- ❖ University of Montana
- ❖ University of Nebraska, Kearney
- ❖ University of Nevada, Reno
- ❖ University of Rhode Island
- ❖ University of Texas, Pan-American
- ❖ University of West Georgia
- ❖ University of Wisconsin, River Falls
- ❖ Western Illinois University
- ❖ Western Michigan University
- ❖ Brigham Young University
- ❖ California State University, Fresno
- ❖ California State University, Hayward
- ❖ Indiana University
- ❖ Indiana University, South Bend
- ❖ Iowa State University
- ❖ Kansas State University
- ❖ Louisiana State University, Shreveport
- ❖ Minnesota State University, Moorhead
- ❖ Sacramento State
- ❖ San Jose State University
- ❖ Southern Utah University
- ❖ St. Ambrose University
- ❖ State University of New York, Binghamton
- ❖ State University of New York, Fredonia



Works Cited:

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- 2.) “Information Literacy Competency Standards for Higher Education” Association of College & Research Libraries (<http://www.ala.org/ala/acrl/acrlstandards/informationliteracycompetency.cfm>)
- 3.) “Information Literacy Competency Standards for Science and Engineering/Technology” Association of College & Research Libraries (<http://www.ala.org/ala/acrl/acrlstandards/infolitcitech.cfm>)
- 4.) Smith, E. “Developing an Information Skills Curriculum for the Sciences” *Issues in Science and Technology Librarianship* vol 37, 2003
- 5.) Sinn, Robin N. “Library Instruction for Biology Courses: a Literature Review and Survey” *Research Strategies* vol 16 no 2 (103-115), 1998
- 6.) Ferguson, JE., Neely, TY., & Sullivan, K. “A Baseline Information Literacy Assessment of Biology Students” *Reference & User Services Quarterly* vol 46 no 2 (61-71), 2006
- 7.) Tanner, K. & Allen, D. “Approaches to Biology Teaching and Learning: From Assays to Assessment – On Collective Evidence in Science Teaching” *Cell Biology Education* vol 3 (69-74), 2004

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