Cultivating Critical Thinking in K-12 Library Instruction: Results of the Implementation of Bloom's Taxonomy

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The Study

• **Purpose:** Test the LILA Model
  – Link critical thinking & information literacy
  – Frame the from-assignments-to-assessments picture
  – Harness the standards stampede

• **Methods**
  – 15 LIS Candidates in a School Library Certification Program applied LILA in a Field Experience Setting
  – Narrative assessments
Linking CT and IL

• “Critical Thinking” = about 4 million results
  – The ability to think critically, ...involves three things: (1) an attitude of being disposed to consider in a thoughtful way the problems and subjects that come within the range of one's experiences, (2) knowledge of the methods of logical inquiry and reasoning, and (3) some skill in applying those methods. – Edward Glaser

• “Information Literacy” = about 3.3 million results
  – Information Literacy is the set of skills needed to find, retrieve, analyze, and use information. - ALA
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Learner

Examples

– 5th grade students
– Three sections of 7th & 8th Grade Students

We can also identify

• Academic Library Learners
• Public Library Learners

http://iirc.niu.edu/School.aspx?schoolID=070162180160007

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Information Literacy

Examples Standards

I Sail 2011 Learning Standards


- Standard 1: Access information efficiently and effectively to inquire, think critically, and gain knowledge

- Standard 2: Evaluate information critically and competently

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Bloom’s Revised Taxonomy
• Remembering
• Understanding
• Applying
• Analyzing
• Evaluating
• Creating

Information Literacy
‘Students will understand how various types of media and reference sources can be used. They will apply this knowledge to gain information to create an introduction for a famous person.’
Assessment

- Assessment includes both learner and librarian reflections
  - Recommended: vary learner assessments, include quizzes, written narratives, discussions, presentations and search results
  - Grading is easier for organization, punctuation type assessments than for creativity
Sample Reflection:

• **Today I...**
  • Used data to plan the lesson. ✓
  • Stated my objectives clearly. ✓
  • Actively engaged students. ✓
  • Integrated Bloom’s Taxonomy. ✓
  • Provided time for interaction. ✓
  • Gave feedback. ✓
  • Kept the lesson aligned. ✓
Sample Reflection: “When I discussed the lesson with the supervising librarian he made a few suggestions. He suggests that the lesson be taught to freshman Honors English classes only and not to all freshman English classes. He also thought that two to three days should be added to the lesson to allow students time to complete all activities. He did not believe the regular education 9th grade regular education students would be able to find reference sources and complete the introduction.”
Sample Reflection: “I agree with the librarian that the lesson time should be extended but I don’t agree that the lesson should only be taught to honor students. His concern was that many of the students at the school read at a low level and that they wouldn’t be able to read the material. I feel the strategy of pairing students will build the students strengths and they will be able to get through the lesson helping each other and asking for help and clarification from the librarian. I also believe that regular education students will be able to find resource to complete the introduction activity. I believe the lesson meets the standards and the categories of Bloom’s Taxonomy because students are doing hands on activities to learn about research and resources during the lesson. Students are also learning about resources and how to use media that will help them in school and in life.”
Sample Reflection: “The LILA model could easily be used for any other subject area. The circular nature of the model encourages the teacher to focus on student results, and then create the next round of lesson plans based on those results. For example, when a math teacher finishes a unit on decimals, rather than checking it off and thinking, I’m done teaching this, on to the next topic--the teacher would look at student data and use that to inform the next lesson.”
Recommendations

• Adopt Learning Theory

• Employ Pedagogical & Andragogical tools

• Lesson Plans for Academic Librarians?

• LIS Education for public & academic librarians includes
  – Learning theory
  – Individuals, groups, adult learners, etc.
Issues

• Privacy
• Ethics – IRB’s for Academic & School Librarians
• Which standards do I use?
• Valid measurements
Learning Theorists

Benjamin Bloom
Jerome Bruner
Malcolm S. Knowles
David A. Kolb
Seymour Papert
Jean Piaget
Lev S. Vygotsky
This theorist is most well known for an interest in adult education.

- Vygotsky
- Kolb
- Knowles
What cognitive psychologist viewed children as active problem-solvers?

- Piaget
- Bruner
- Papert
Who gave us the technology of LOGO?

- Piaget
- Kolb
- Papert
The Zone of Proximal Development (ZPD), relevant to information literacy, is the work of this theorist.

- Bruner
- Vygotsky
- Papert
Who was interested in wrong answers on the Stanford-Benet IQ tests?

- Piaget
- Vygotsky
- Bruner
Who emphasized the importance of critical reflection in experiential learning?

• Bruner
• Knowles
• Kolb
This educator & medical doctor believed in “continually adapting the environment in order that the child may fulfill his or her greatest potential, physically, mentally, emotionally, and spiritually.”

Maria Montessori