

**University of Idaho**

---

**From the Selected Works of Rick A Stoddart**

---

March 9, 2009

## Skills Needed for College Success

Sandra Shopshire, *Idaho State University*

Rick A Stoddart, *Boise State University*

Sara Seeley, *Boise State University*

Chareen Snelson



Available at: [https://works.bepress.com/richard\\_stoddart/27/](https://works.bepress.com/richard_stoddart/27/)

# Skills needed for college success

Critical Learning Skills in the 21st Century  
Idaho Falls, March 9, 2009

Some thoughts on...

# Student Retention @



Rick Stoddart, Boise State University Libraries

# 1st Semester Student Success

## Key Indicators:

High GPA (positive)

ENGL 101, COM 101, UNIV101 (positive)

ENGL 102 (negative)

MATH 025 (positive)

MATH 108 (negative)

# ETS Research - ICT Literacy

Of 6,300 H.S. Seniors & First Year College Students tested...

Websites:

Only 52% judged the objectivity of a website correctly

Only 65% judged the authority correctly

Research Statements:

Only 44% identified a statement that captured the demands of the assignment

8% picked statements that did not address the assignment

Further: When using a research database only 50% used a strategy which would minimize irrelevant results.

Rick Stoddart, Boise State University Libraries



## The Second Digital Divide

Rick Stoddart, Boise State University Libraries

image courtesy of AdamTheBruce @ wikicommons



# Critical Thinking--What is it?

"...thinking that is purposeful, reasoned, and goal-directed. It is the kind of thinking involved in solving problems, formulating inferences, calculating likelihoods, and making decisions."

Halpern, D. (1989). *Thought and Knowledge: an Introduction to Critical Thinking*. (p. 5). Hillsdale, New Jersey: Lawrence Erlbaum Associates.

Sandra Shropshire, Idaho State University



# A Critical Thinker...

- uses evidence skillfully and impartially
- distinguishes between logically valid and invalid inferences
- suspends judgement in the absence of sufficient evidence to support a decision
- attempts to anticipate the probable consequences of alternative actions before choosing among them
- can learn independently, and, at least equally importantly, has an abiding interest in doing so
- applies problem-solving techniques appropriately in domains other than those in which they were learned
- can structure informally represented problems in such a way that formal techniques can be used to solve them
- understands the differences among conclusions, assumptions, and hypotheses

Nickerson, R.S. **Why teach thinking?**. in J.B. Baron, R. J. Sternberg (Eds.), *Teaching thinking skills: theory and practice* (pp.29-30). New York: W.H. Freeman.

Sandra Shropshire, Idaho State University

"Research seems to be far more difficult to conduct in the digital age than it did in previous times."

Head, A. & Eisenberg, M. (2009). Finding context: what today's college students say about conducting research in the digital age. Project Information Literacy Progress Report. Retrieved from [http://projectinfolit.org/pdfs/PIL\\_ProgressReport\\_2\\_2009.pdf](http://projectinfolit.org/pdfs/PIL_ProgressReport_2_2009.pdf) (p.2)

Sandra Shropshire, Idaho State University

# What frustrates students most

- Information overload
- Too much irrelevant information
- Beginning and getting started on an assignment
- Trying to find the "perfect source"
- Not knowing what to look for

# Research Contexts

## 1) Big Picture

- Selecting and defining a topic
- Understanding multiple sides of an argument
- Figuring out how the topic might best fit into the course curriculum

# Research Contexts

## 2) Language

- Language
- Terms
- Discourses

# Research Contexts

## 3) Situational

- Setting parameters
- How efforts may fit into expectations and set of surrounding circumstances

# Research Contexts

## 4) Information-Gathering

- Finding
- Accessing
- Securing

# Implications

Frustrated by research process

Experience information overload

Interested in learning to find materials at time they need them





# Idaho Information & Communication Technology Standards

Largely based on ISTE's National Educational Technology student learning standards.

- 1. Creativity and Innovation**
- 2. Communication and Collaboration**
- 3. Research and Information Fluency**
- 4. Critical Thinking, Problem Solving & Decision Making**
- 5. Digital Citizenship**
- 6. Technology Operations and Concepts**

We mapped all standards considered, including: AASL, ISTE, Big 6, and ACRL

Sara Seely, Boise State University Libraries

# Idaho Information & Communication Technology Standards

## **3. Research and Information Fluency**

*Students apply digital tools to gather, evaluate and use information from a variety of sources.*

1. formulate questions and research strategies based on information needs
2. evaluate and select information sources and digital tools based on the appropriateness to specific tasks
3. effectively and efficiently navigate resources to access needed information
4. extract, classify, store, or manipulate information collected or generated

# Idaho Information & Communication Technology Standards

- Standards are a roadmap
  - Describe student learning goals we already meet
  - Describe student learning goals we'd like to meet
- Base for assessment
- ICT across the curriculum
  - Map to content area standards

# Idaho Information & Communication Technology Standards

- Next steps
  - ILA Information Literacy committee
  - K-16 Scope and Sequence of student learning goals
  - replace existing 8th grade standards
- Student success in the first year at BSU
  - Linking library research course to English 102
- Teacher education
  - introduce LiLI databases and constant information resources



# Online Video as an Information Source

Video is nothing new, but the distribution system has changed

- 35 million hours of free video online-Mostly short clips
- Video on almost any topic including science
  - DNATube (Cell Biology, Genetics, Biochemistry)
  - LabAction (Biology)
- Scientific research now shared through video
  - SciVee (Pubcasts of research papers)
  - JoVE (Journal of Visualized Experiments)
- YouTube does contain *some* good educational content
  - The Periodic Table of Videos (A video for each element)
  - NOAA Visualizations (Weather and Climate Animations)
  - Khan Academy (Algebra, Calculus, Physics)

# Finding Video Online

## Video Search Tools

**Blinx** (35 million hours of video): <http://www.blinkx.com/>

**EduTube** (Educational video search): <http://www.edutube.org/>

**Google Video Search** (Any type of video): <http://video.google.com/>

**MeFeedia** (Video search and aggregation): <http://mefedia.com/>

**VideoSurf** (Facial recognition): <http://www.videosurf.com>



# Creating Video for the Web

Inexpensive and easy to use video cameras

- Flip Video
- Webcam
- Cell Phone

Video editing software on most computers

- Windows: Movie Maker
- Macintosh: iMovie

Free Video Hosting Services

- TeacherTube
- SchoolTube
- YouTube