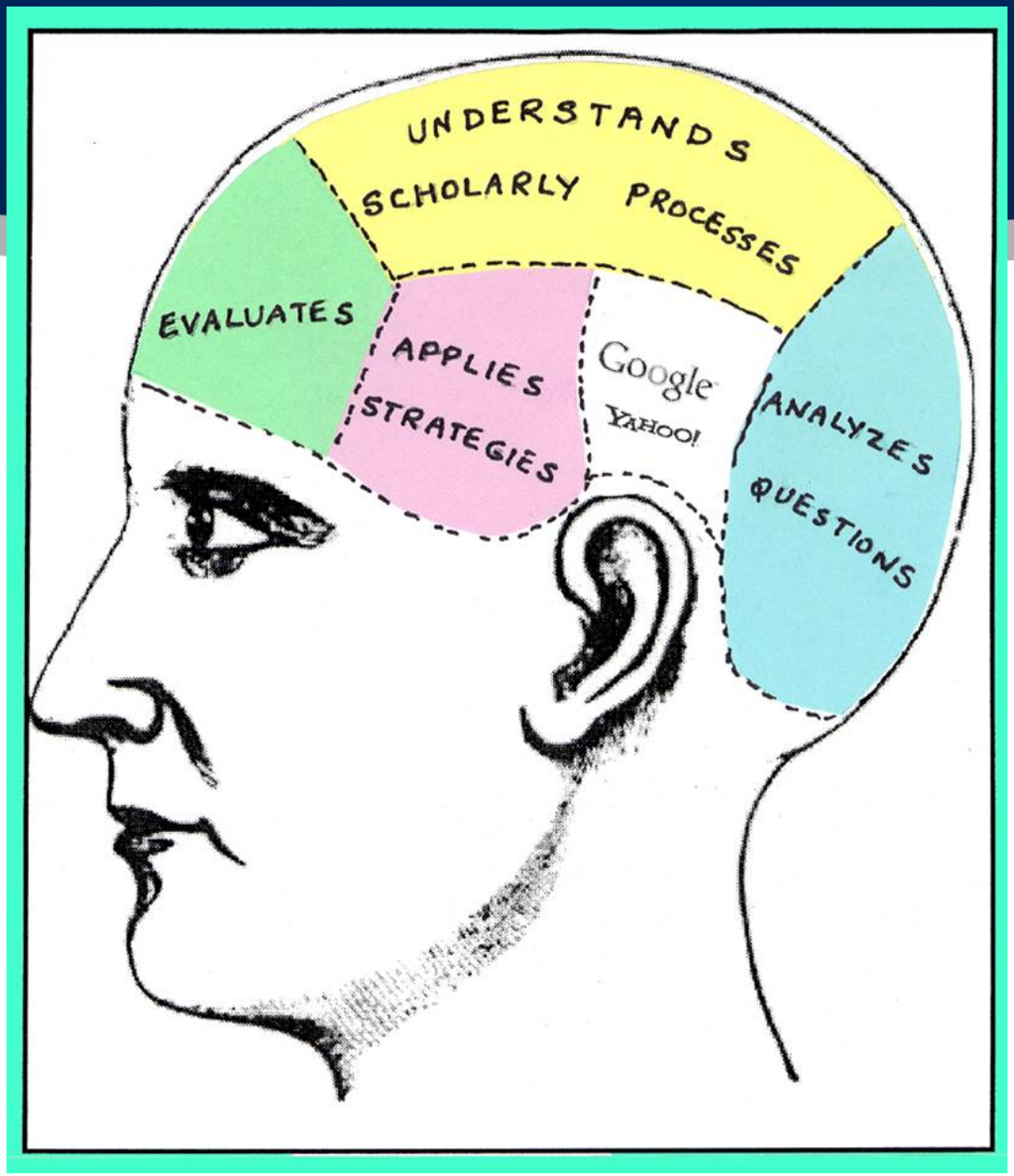
What is Research Literacy?

Dr. David A. Salomon
Director, The Office of Undergraduate Research and Creative Activity


UNDERSTANDS
SCHOLARLY PROCESSES
EVALUATES
APPLIES
STRATEGIES
Google
YAHOO!
ANALYZES
QUESTIONS

From CNU's Quality Enhancement Plan

- We define **Undergraduate Research Literacy** as "a skill-set that emerges as students learn to recognize, locate, evaluate, and synthesize information necessary to conduct a discipline-specific academic inquiry and produce work notable for its originality, rigor, and creativity."

From the QEP

- Learning the Research Alphabet (in terms of teaching research skills to students and ultimately translating that language between university and "real world" contexts), Learning Research Grammar (in terms of the foundations within specific disciplines related to research), and Learning Research Synthesis (in terms of applying research knowledge to independent efforts such as independent research, internships, or service learning experiences).

Learning the Research Alphabet

- teaching research skills to students and ultimately translating that language between university and “real world” contexts
- What does that look like?

Learning the Research Alphabet

- Descriptive
  - Who
  - What
  - How
  - Where
  - When
- Exploratory
  - Better understanding of the problem at hand
- Explanatory
  - Explain the causes of the problem

TRIBLE LIBRARY

The Paul & Rosemary Trible Library: Welcome!

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CNU Catalog | Scholarly Articles | JournalFinder | Course Reserves | Worldcat Discovery

Search for books, e-books, and media in Trible Library

Use the request service for the books!

Keyword | Go

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Off Campus Access is available - see this guide for directions and instructions!

Library Expansion

Details and Plans

Get Help

Library Hours

Media Center

Research Assistance Appointment

Course Guides or all LibGuides

Library Databases A to Z

Library Instruction

Writing and Citing

Getting Started Guides

Primary Source Guides

Reserve Group Study Space

Interlibrary Loan

New Books

Suggest a Purchase

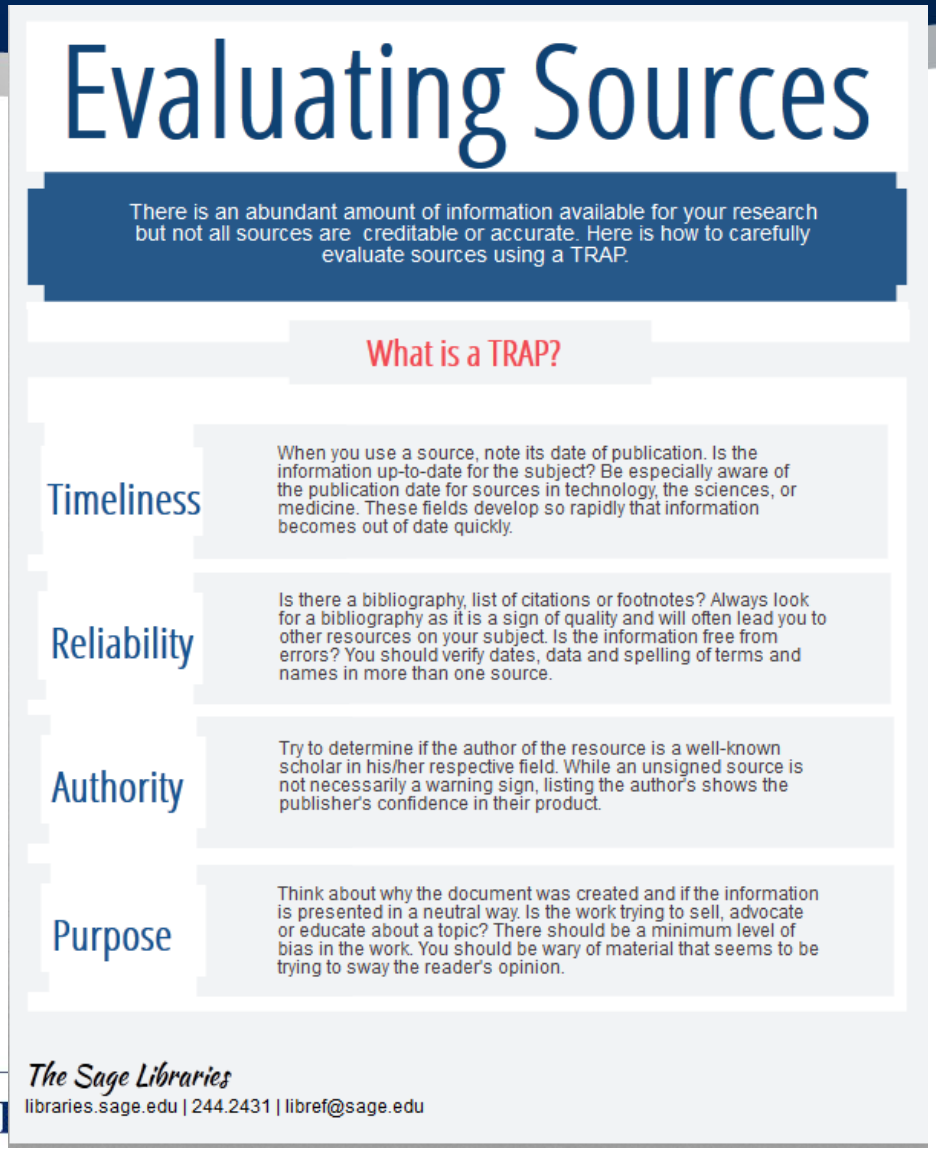
Special Collections & Archives

Records Management

Google Search I'm Feeling Lucky

Evaluation, Evaluation, Evaluation

- TRAP
  - Timeliness
  - Reliability
  - Authority
  - Purpose



Evaluating Sources

There is an abundant amount of information available for your research but not all sources are creditable or accurate. Here is how to carefully evaluate sources using a TRAP.

What is a TRAP?

Timeliness

When you use a source, note its date of publication. Is the information up-to-date for the subject? Be especially aware of the publication date for sources in technology, the sciences, or medicine. These fields develop so rapidly that information becomes out of date quickly.

Reliability

Is there a bibliography, list of citations or footnotes? Always look for a bibliography as it is a sign of quality and will often lead you to other resources on your subject. Is the information free from errors? You should verify dates, data and spelling of terms and names in more than one source.

Authority

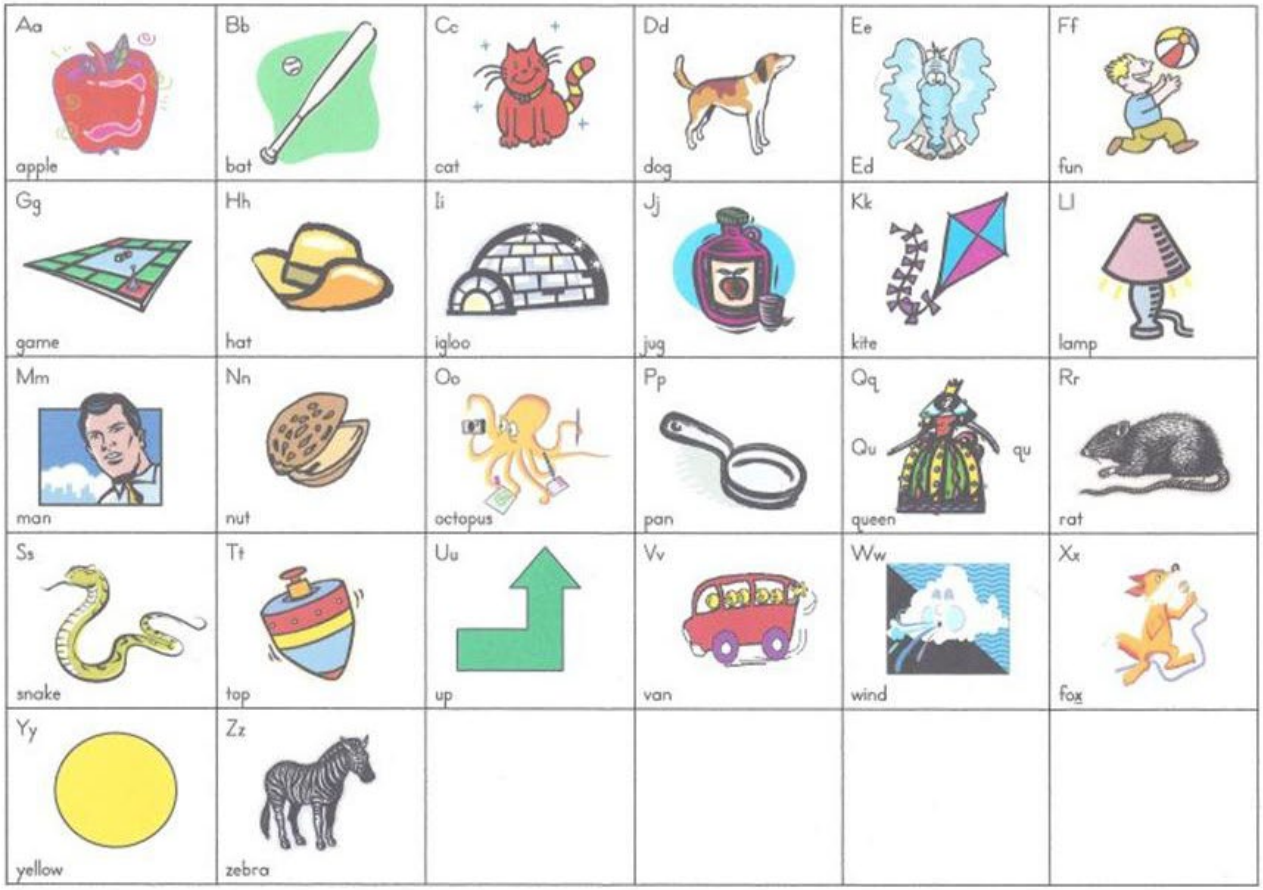
Try to determine if the author of the resource is a well-known scholar in his/her respective field. While an unsigned source is not necessarily a warning sign, listing the author's shows the publisher's confidence in their product.

Purpose

Think about why the document was created and if the information is presented in a neutral way. Is the work trying to sell, advocate or educate about a topic? There should be a minimum level of bias in the work. You should be wary of material that seems to be trying to sway the reader's opinion.

The Sage Libraries
libraries.sage.edu | 244.2431 | libref@sage.edu

Got the alphabet?



Learning Research Grammar

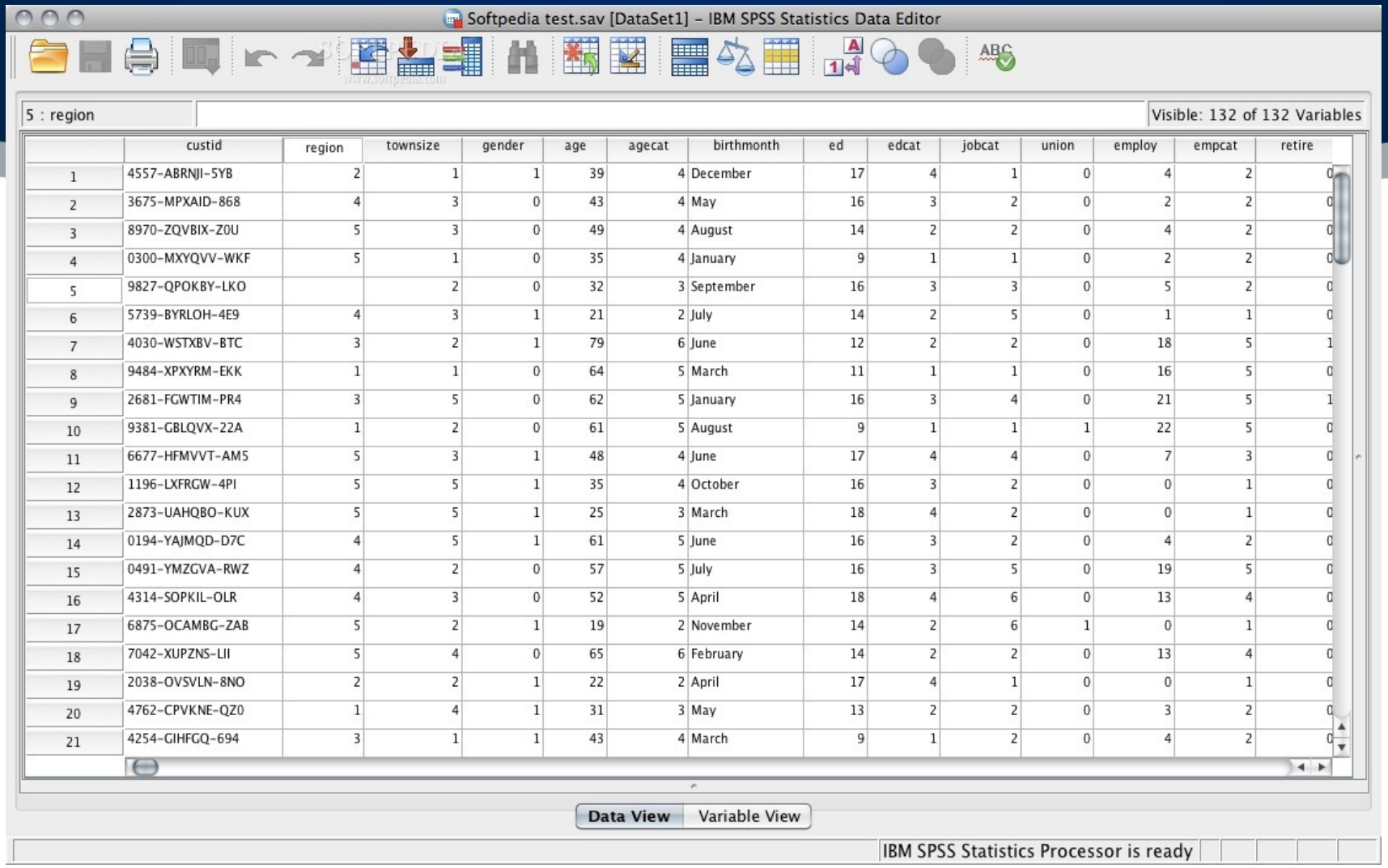
- the foundations within specific disciplines related to research
- putting together the words and sentences

Methods and Methodology

- Becoming more familiar with the tools and resources in the discipline
- Print and electronic resources
- Specialized lab equipment
- Sources of information
- Discipline-specific databases
- Software

DELL
Windows
Professional
Trace DSQ
TraceGC ultra
RIGHT CARRIER
Col. Flow
Pressure
Flow mode

Mass Spec



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1	4557-ABRNJI-5YB	2	1	1	39	4	December	17	4	1	0	4	2	0
2	3675-MPXAID-868	4	3	0	43	4	May	16	3	2	0	2	2	0
3	8970-ZQVBIX-Z0U	5	3	0	49	4	August	14	2	2	0	4	2	0
4	0300-MXYQVV-WKF	5	1	0	35	4	January	9	1	1	0	2	2	0
5	9827-QPOKBY-LKO		2	0	32	3	September	16	3	3	0	5	2	0
6	5739-BYRLOH-4E9	4	3	1	21	2	July	14	2	5	0	1	1	0
7	4030-WSTXBV-BTC	3	2	1	79	6	June	12	2	2	0	18	5	1
8	9484-XPXYRM-EKK	1	1	0	64	5	March	11	1	1	0	16	5	0
9	2681-FGWTIM-PR4	3	5	0	62	5	January	16	3	4	0	21	5	1
10	9381-GBLQVX-22A	1	2	0	61	5	August	9	1	1	1	22	5	0
11	6677-HFMVVT-AM5	5	3	1	48	4	June	17	4	4	0	7	3	0
12	1196-LXFRGW-4PI	5	5	1	35	4	October	16	3	2	0	0	1	0
13	2873-UAHQBO-KUX	5	5	1	25	3	March	18	4	2	0	0	1	0
14	0194-YAJMQD-D7C	4	5	1	61	5	June	16	3	2	0	4	2	0
15	0491-YMZGVA-RWZ	4	2	0	57	5	July	16	3	5	0	19	5	0
16	4314-SOPKIL-OLR	4	3	0	52	5	April	18	4	6	0	13	4	0
17	6875-OCAMBG-ZAB	5	2	1	19	2	November	14	2	6	1	0	1	0
18	7042-XUPZNS-LII	5	4	0	65	6	February	14	2	2	0	13	4	0
19	2038-OVSVLN-8NO	2	2	1	22	2	April	17	4	1	0	0	1	0
20	4762-CPVKNE-QZ0	1	4	1	31	3	May	13	2	2	0	3	2	0
21	4254-GIHFGQ-694	3	1	1	43	4	March	9	1	2	0	4	2	0

SPSS

Archival Work

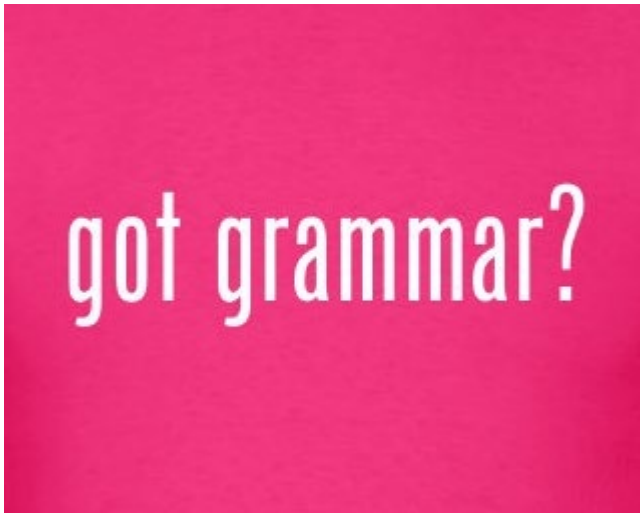
Focus groups

Research Grammar in A&S

- Ex: An exploration of Jungian archetypes in *The Secret Garden*
- Familiarity with Jungian archetypes
  - Jung, *Archetypes and the Collective Unconscious*
- Overview of psychological readings of *The Secret Garden*

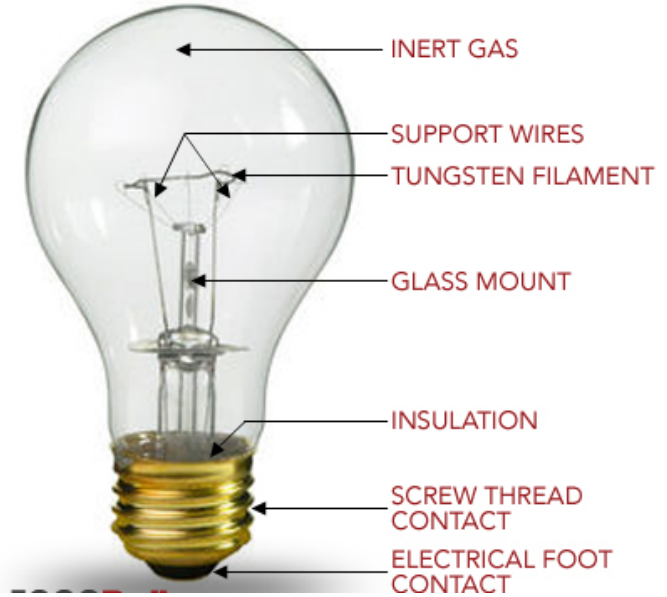
Research Grammar in NBS

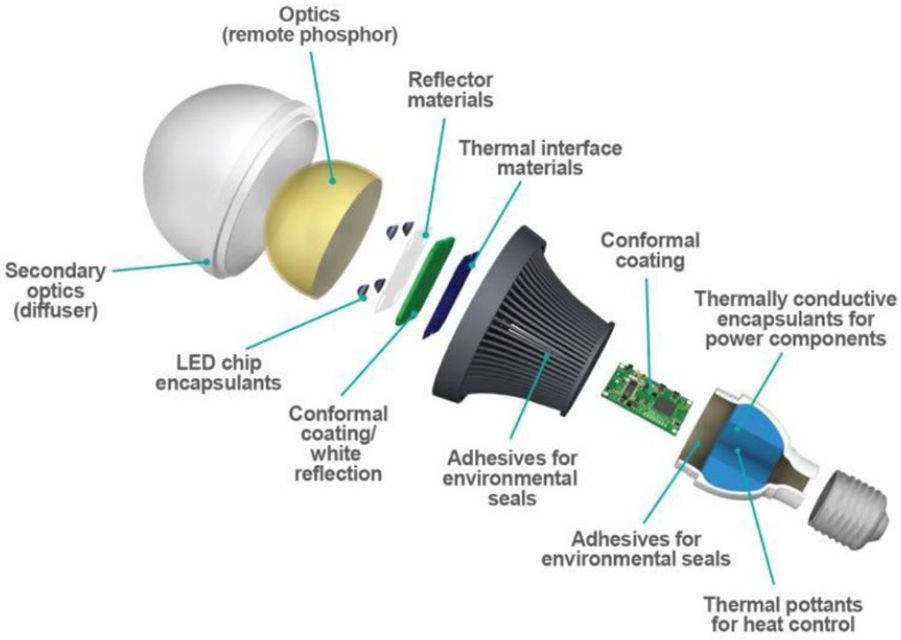
- Ex: studying craniofacial mutations in Zebrafish
- Familiarity with the basic anatomy and physiology of the Zebrafish
- Familiarity with basic lab procedures
- Competence→Proficiency with Phenotyping
- Microscope skills

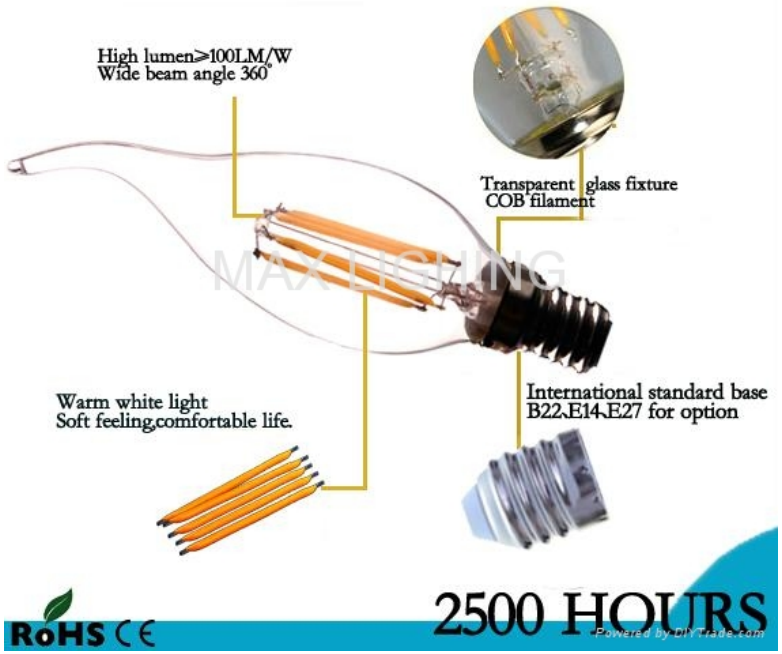

got grammar?

Learning Research Synthesis

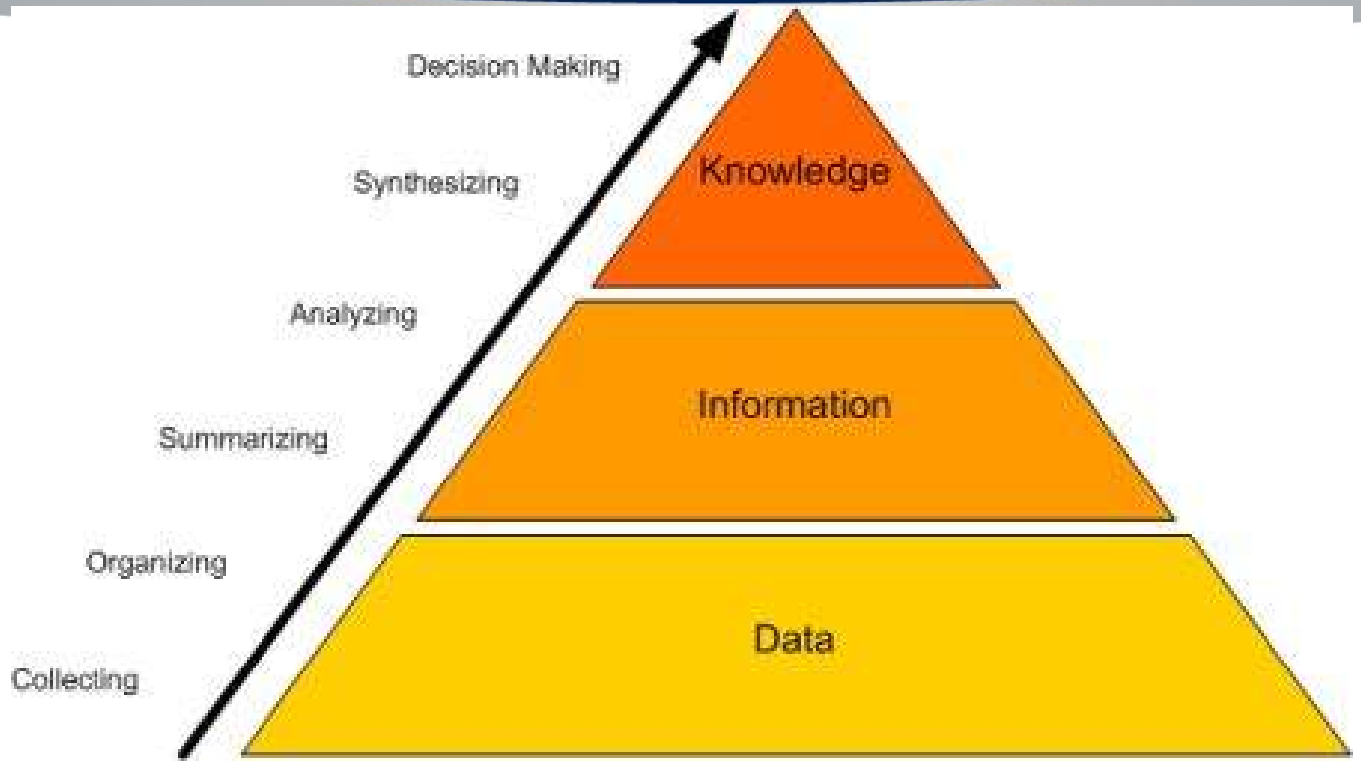
- applying research knowledge to independent efforts such as independent research, internships, or service learning experiences




Optics
(remote phosphor)
Reflector
materials
Thermal interface
materials
Conformal
coating
Thermally conductive
encapsulants for
power components
Secondary
optics
(diffuser)
LED chip
encapsulants
Conformal
coating/
white
reflection
Adhesives for
environmental
seals
Adhesives for
environmental seals
Thermal pottants
for heat control

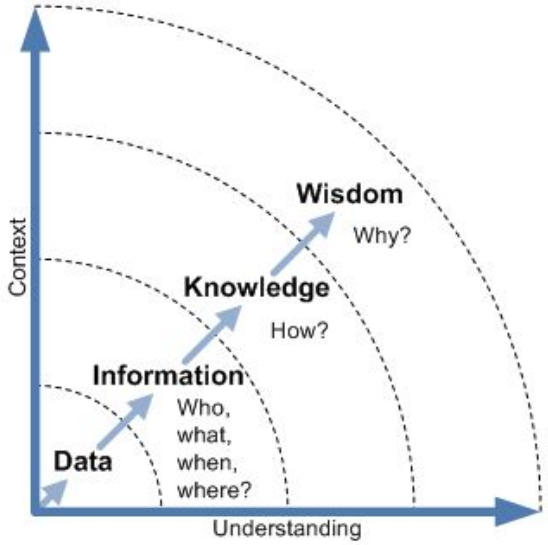

High lumen≥100LM/W
Wide beam angle 360°
Transparent glass fixture
COB filament
MAX LIGHTING
International standard base
B22,E14,E27 for option
Warm white light
Soft feeling,comfortable life.
RoHS CE
2500 HOURS
Powered by DIY Trade.com

PRIOR KNOWLEDGE
TEXT
(words that you read)
ACTIVITIES
(that you explore)
IMAGES
(that you see)
NEW INFORMATION
PUT THE PIECES TOGETHER TO SEE THEM IN A NEW WAY.


Decision Making
Synthesizing
Analyzing
Summarizing
Organizing
Collecting
Knowledge
Information
Data

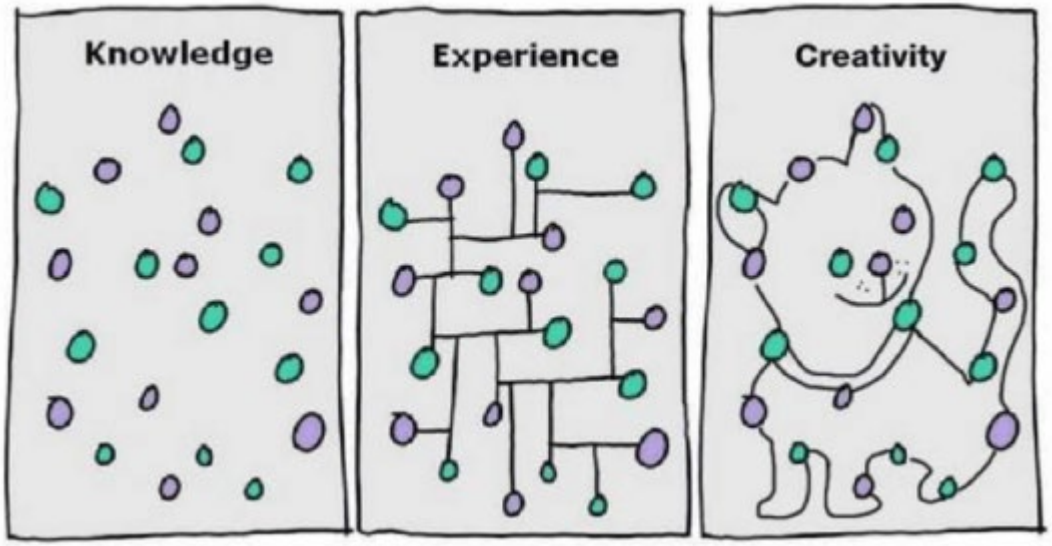
Research Literate?

- Data→Information→Knowledge→Wisdom

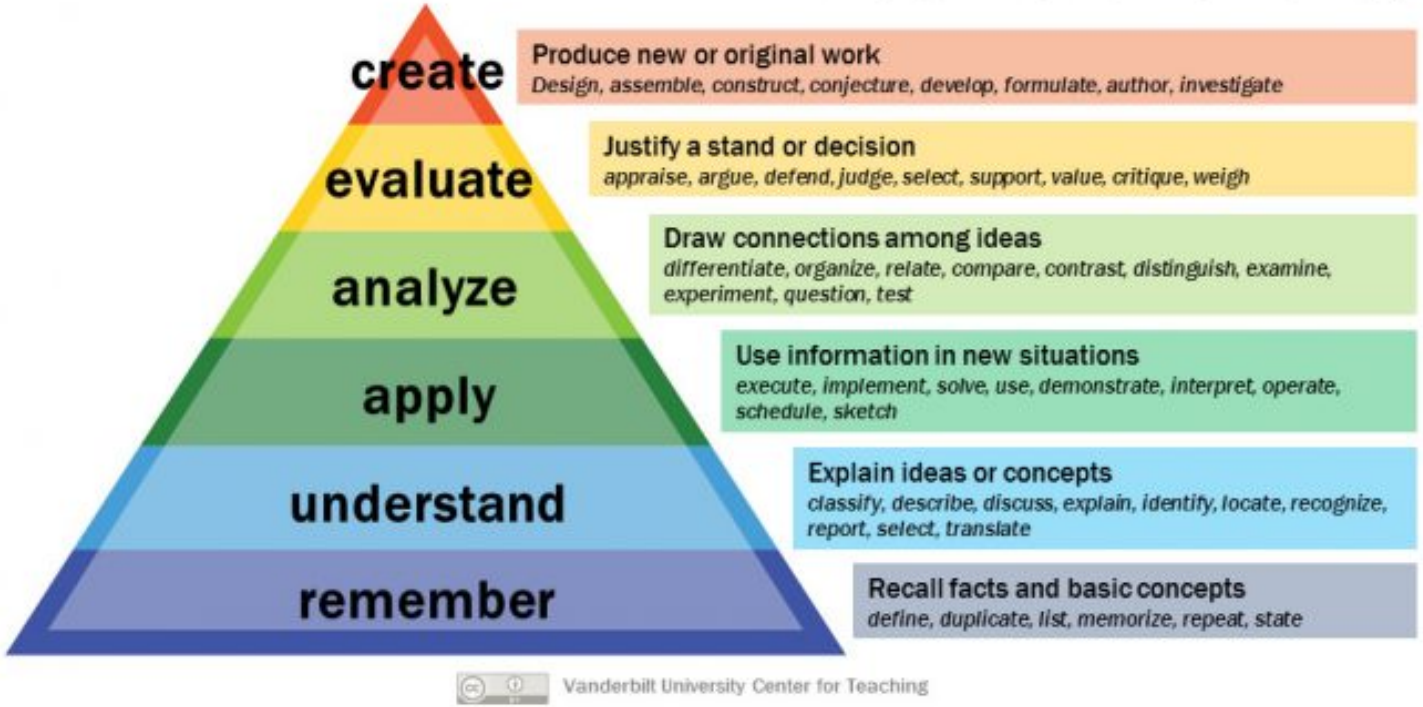


Robert Simmons of the Forsythe Solutions Group

- Being "research literate" is the ability to navigate this continuum


Knowledge
Experience
Creativity

Bloom's Taxonomy



Research LENS

RESEARCH LENS

LEARN · EXPLORE · NAVIGATE · SHARE

Next OURCA Workshops:

Tuesday, December 5, 12:30-1:30, MCM 362

Thursday, December 7, 12:30-1:30, MCM 362

THE NEW OURCA LENS TRAVEL FUND: HOW TO APPLY