



DIGITAL LITERACY & CRITICAL THINKING

EMPOWERING STUDENT PERFORMANCE WITH YOUR ASU LIBRARY PARTNERS

Mark Allan, Assistant Director for Research and Instruction Services

Kimberly Wirth, Coordinator of Information Literacy/Research Librarian



Information Literacy: know when information is needed and ability to locate, evaluate, and use information.

Digital Literacy: ability to use information and communication technologies to find, evaluate, create, and communicate information

Media Literacy: ability to critically read and create academic and professional communications in a range of media, including social media

Transliteracy: encompasses the relationship between people and technology and their skills to interact across a range of platforms, devices, and media

Visual Literacy: ability to find, interpret, evaluate, use, and create images and visual media



Metaliteracy

Information
Literacy

Digital
Literacy

Media
Literacy

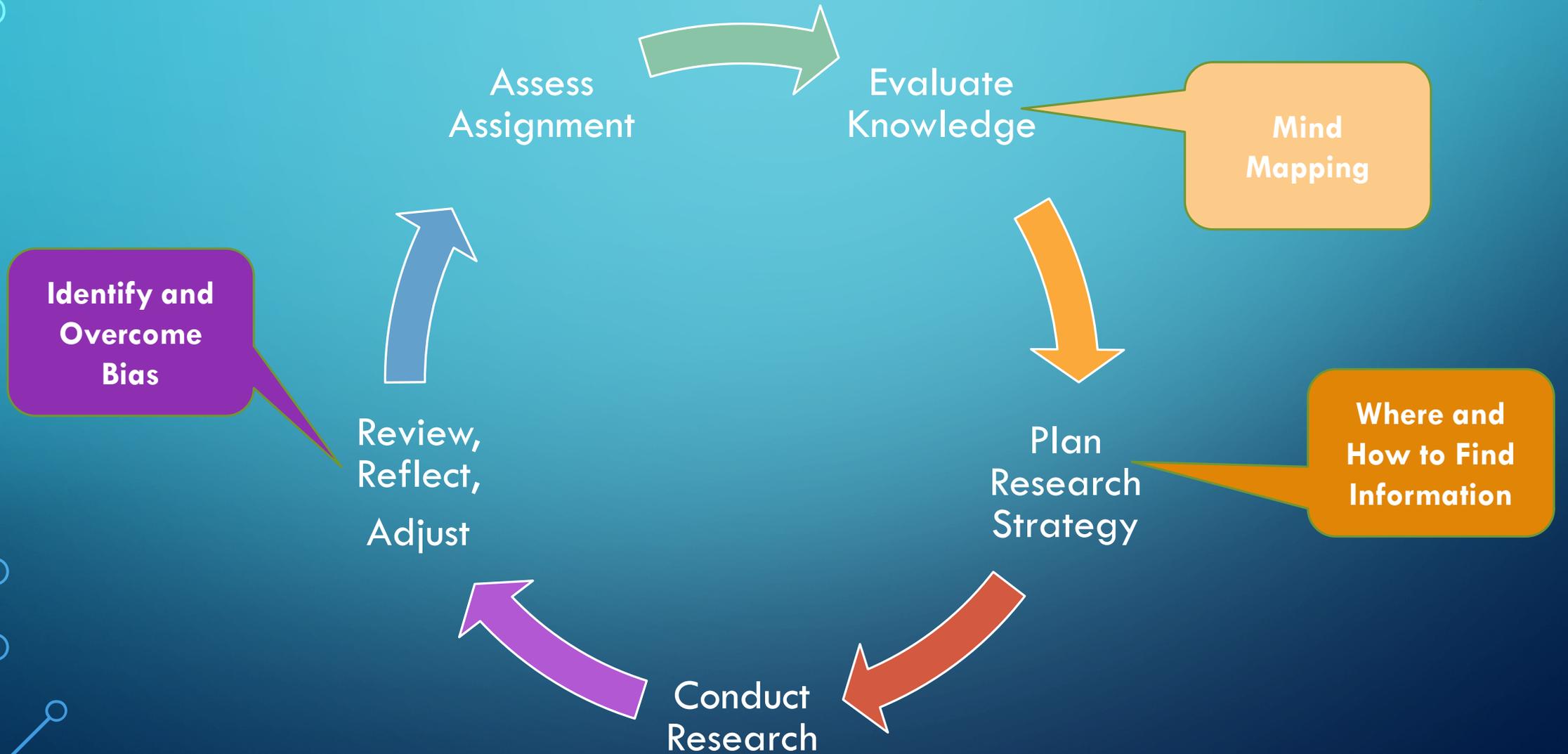
Transliteracy

Visual
Literacy

METACOGNITION

“Higher-order thinking that enables understanding, analysis, and control of one’s cognitive processes”

dictionary.com



A DIGITALLY LITERATE PERSON:

Skillset – both technical and cognitive – necessary to finding, understanding, evaluating, creating, and communicating digital information in a wide variety of formats.

Technical Skills

- Appropriate selection of technologies
 - Finding information
 - Creating information
 - Communicating information
- Effective use of technologies
 - Collaborating
 - Communication

Cognitive Skills

- Know where to Find Information
 - Internet, U-Search, Databases
- Evaluate Information
 - Reliability & Information Need
- Using and Sharing Information
 - Citation & Plagiarism

THE ROLE OF DIGITAL LITERACY IN HIGHER EDUCATION

“Digital literacy is not the responsibility of any one singular area in higher education; rather, it requires a collaborative effort from teaching faculty, librarians, educational technologists, academic advisors, and more.”

Mallon, M.N. (2018) p. 31

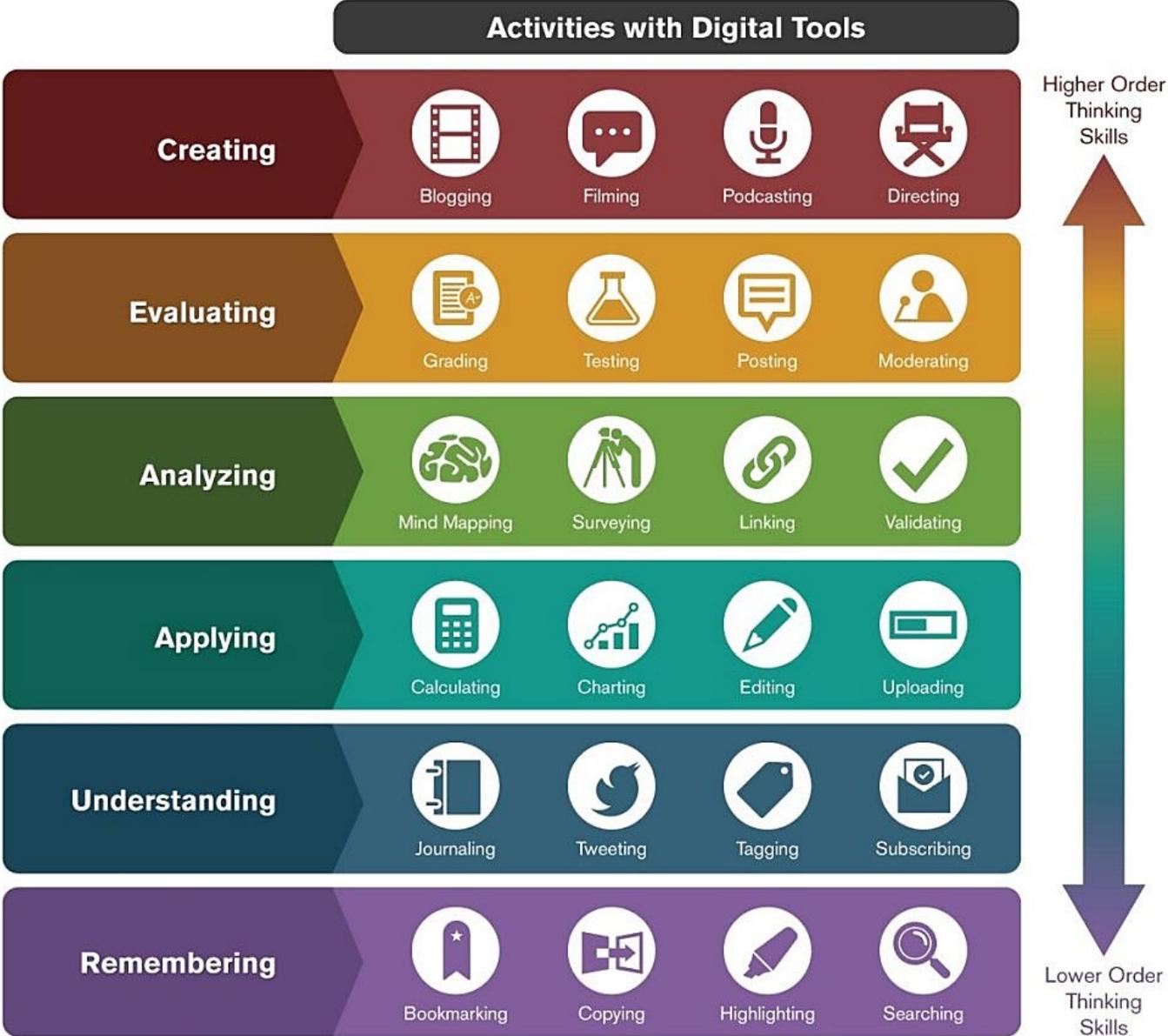
THE ROLE OF DIGITAL LITERACY IN HIGHER EDUCATION

“...prepare students to be responsible citizens and to have productive careers.”

ASU Mission Statement

- Living, learning, and working in a digital society
- Collaborative project
- Include digital literacy in learning outcomes
- Include digital activities in the curriculum

Bloom's Digital Taxonomy



Retrieved from: <https://www.theedadvocate.org/how-to-use-blooms-digital-taxonomy/>

MILLENNIALS



STATE OF CRITICAL THINKING SURVEY, 2019

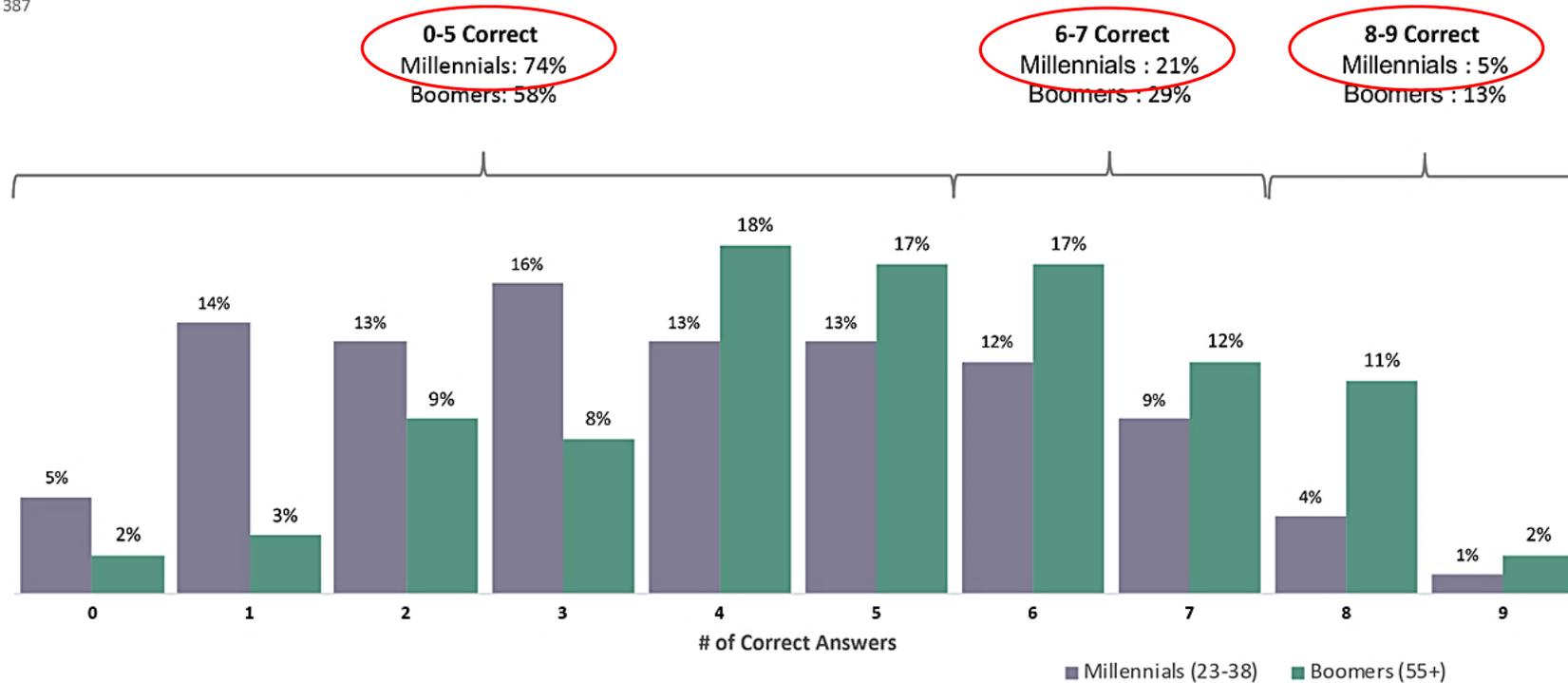
- 1001 College-Educated Americans
- Survey included:
 - Questions about confidence in critical thinking skills
 - Basic 9 Question test of digital literacy
- Conducted online by Qualtrics from May 8 through May 14, 2019

STATE OF CRITICAL THINKING SURVEY, 2019

Boomers outperformed Millennials on the Digital Literacy/Critical Thinking Quiz

Percent Correct by Number Correct

Percent of Total Respondents by the Number Correct (0-9)
n=328, 387



Retrieved from: <https://www.mindedge.com/resources/critical-thinking-survey-2019/>

Millennials

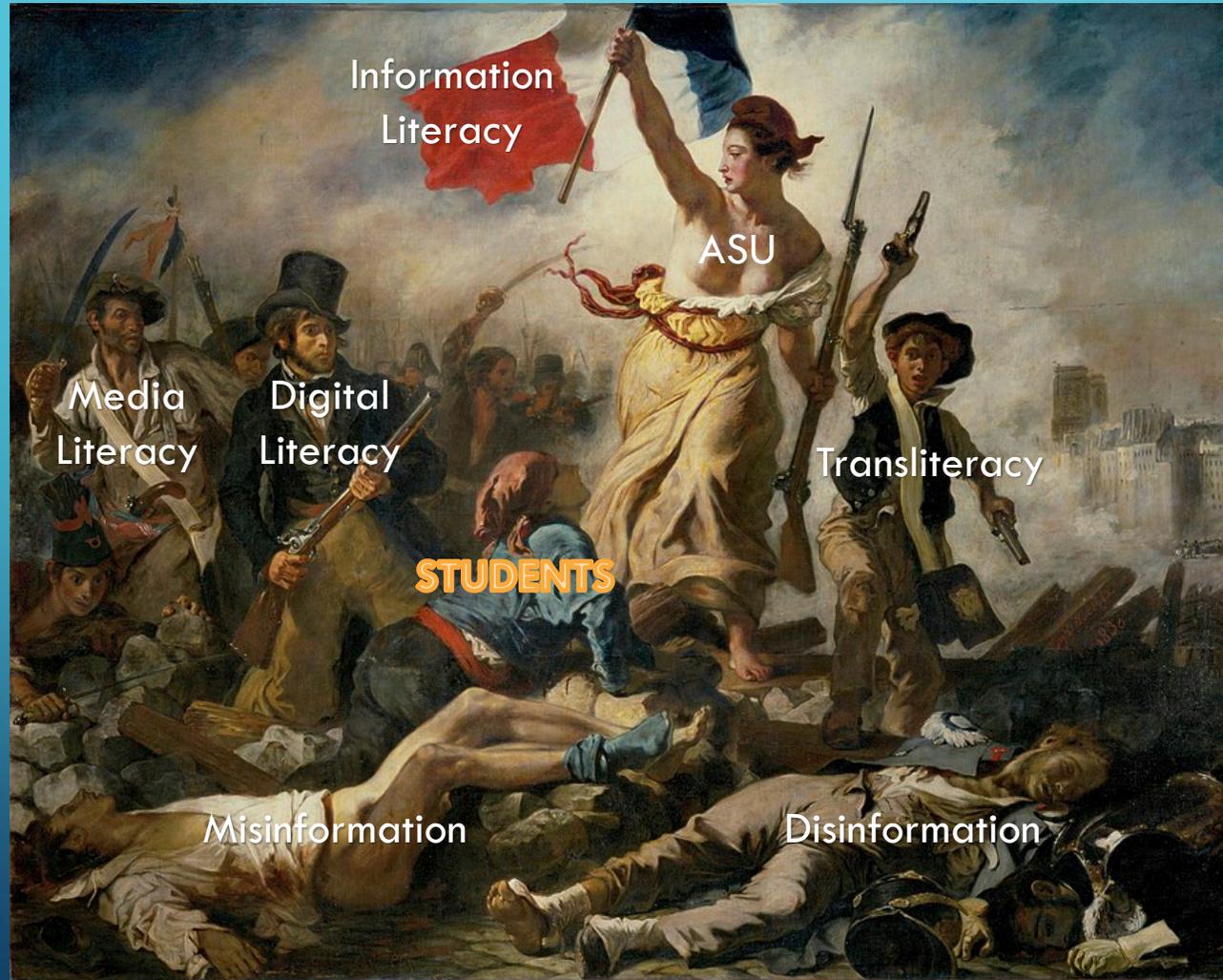
Digital Natives

- Smart Phones, Computers, Internet
- Technology Savvy \neq Critical Thinkers
- Metacognition
- Expectations and Assumptions

Dunning-Kruger Effect

- What is it?
- Cognitive Bias
- Impact on Self Assessment
- Impact on Academic Success

DIGITAL LITERACY, INFORMATION LITERACY



BEST PRACTICES: RISING TO THE CHALLENGE

FRAMEWORK FOR INFORMATION LITERACY FOR HIGHER EDUCATION

ADOPTED BY THE ASSOCIATION OF COLLEGE AND RESEARCH LIBRARIES (ACRL) IN 2016

THRESHOLD CONCEPTS:

- Authority Is Constructed and Contextual
- Information Creation as a Process
- Information Has Value
- Research as Inquiry
- Scholarship as Conversation
- Searching as Strategic Exploration

BEST PRACTICES: RISING TO THE CHALLENGE

TEXAS CORE CURRICULUM

REVISION PUBLISHED BY THE TEXAS HIGHER EDUCATION COORDINATING BOARD (THECB) IN 2018

CORE OBJECTIVES:

- Critical Thinking Skills
- Communication Skills
- Empirical and Quantitative Skills
- Teamwork
- Personal Responsibility
- Social Responsibility

BEST PRACTICES: RISING TO THE CHALLENGE

SCHOOL LIBRARY PROGRAMS: STANDARDS AND GUIDELINES FOR TEXAS

DEVELOPED BY THE TEXAS STATE LIBRARY AND ARCHIVES COMMISSION (TSLAC) IN CONSULTATION WITH THE STATE BOARD OF EDUCATION, ADOPTED 2018.

CORE OBJECTIVES:

- Strand 1. Information Literacy
- Strand 2. Inquiry
- Strand 3. Reading
- Strand 4. Digital Learning
- Strand 5. Safe and Nurturing Environment
- Strand 6. Leadership
- Strand 7. Appendix (Additional Metrics)

ASU: RISING TO THE CHALLENGE

ANGELO STATE UNIVERSITY UNDERGRADUATE LEARNING GOALS (2009)

1. LIBERAL KNOWLEDGE AND SKILLS OF INQUIRY, CRITICAL THINKING, AND SYNTHESIS

Students will acquire knowledge in the humanities, the natural sciences, the social sciences, and the arts, which collectively embody the human cultural heritage. Students will develop their abilities to practice higher-level critical thinking.

2. CORE SKILLS

Students will become proficient in reading, writing, speaking, and listening. They will also develop quantitative literacy and technological fluency.

3. SPECIALIZED KNOWLEDGE

Students will gain knowledge and skills appropriate both for their fields of study and to enter into the professional sector and/or graduate school.

4. SOCIAL RESPONSIBILITY

Students will understand their responsibility as citizens in a complex, changing society.

5. CULTURAL IDENTITY

Students will gain insight into the ways cultural identities and experiences shape individual perspectives of the world.

ASU: RISING TO THE CHALLENGE

ANGELO STATE UNIVERSITY GRADUATE STUDENT LEARNING GOALS

MASTER KNOWLEDGE AND SKILLS

STUDENTS WILL:

DEMONSTRATE ADVANCED KNOWLEDGE, SKILLS AND VALUES APPROPRIATE TO THEIR CHOSEN DISCIPLINE.

DEMONSTRATE THE ABILITY TO WORK AS INDIVIDUAL RESEARCHERS/SCHOLARS AND IN COLLABORATION WITH OTHERS.

DEMONSTRATE THE ABILITY TO BE CREATIVE CRITICAL THINKERS AND TO APPLY NEW TECHNOLOGIES APPROPRIATE TO THEIR CHOSEN DISCIPLINE.

MASTER COMMUNICATION AND DISSEMINATION

STUDENTS WILL:

BE REQUIRED TO DEMONSTRATE ADVANCED ORAL AND WRITTEN COMMUNICATION SKILLS APPROPRIATE TO THEIR CHOSEN DISCIPLINE.

DEMONSTRATE GLOBAL PERSPECTIVES APPROPRIATE TO THEIR CHOSEN DISCIPLINE.

MASTER LEADERSHIP AND SOCIAL RESPONSIBILITY

STUDENTS WILL:

COMPREHEND AND PRACTICE THE ETHICAL PRINCIPLES APPROPRIATE TO THEIR CHOSEN DISCIPLINE.

UNDERSTAND AND VALUE INDIVIDUAL DIFFERENCES, AND HAVE THE SKILLS TO WORK EFFECTIVELY IN A DIVERSE, CHANGING WORLD.

ASU LIBRARY INFORMATION LITERACY CURRICULUM

LIBRARY SERVICES TO ENHANCE DIGITAL LITERACY & CRITICAL THINKING SKILLS

- Skills

- When and how to Use U-Search, our Discovery Tool
- What Databases May be Relevant, and How to Use Specific Examples
- Tools such as Boolean Searching, Truncation, Exact Phrase Search, Controlled Vocabulary, Database Citation Helpers

- Higher-Order Thinking

- Benefits of a Research Strategy
- Bias, Self and Others

HIGHER ORDER THINKING - CURRICULUM MAPPING

LIBRARY

ACRL FRAMEWORK

Course	Topic	Learning Objectives	Level	Framework Threshold Concept	TC Knowledge Practice
GS 1181	Various	Students will be able to use U-Search to locate information.	NOVICE	Searching as Strategic Exploration	Utilize divergent (e.g., brainstorming) and convergent (e.g., selecting the best source) thinking when searching (Limiters, C.R.A.A.P.).
		Students will understand the benefits of having a research strategy.	NOVICE	Searching as Strategic Exploration	Design and refine needs and search strategies as necessary, based on search result (Keywords & Synonyms, Limiters). Understand how information systems (i.e., collections of recorded information) are organized on order to access relevant information. (Item Records)
		Students will be aware of the need to question information.	NOVICE	Searching as Strategic Exploration	Manage searching process and results effectively. (Keywords, Synonyms, Limiters)
		Students will know how to analyze information using the C.R.A.A.P. method	NOVICE	Authority is Constructed and Contextual	Define different types of authority, such as subject expertise (e.g., scholarship), societal position (e.g., public office or title), or
		Students will be aware of their own bias.	NOVICE	Information has Value	Metacognition: self awareness of own bias Use research tools and indicators of authority to determine the credibility of sources, understanding the elements that might temper this credibility. (C.R.A.A.P.)

HIGHER ORDER THINKING – RESPONSIVE TO STUDENT’S AND FACULTY’S NEEDS

CURRENT CURRICULUM

COGNITIVE BIAS – CONFIRMATION BIAS

FUTURE CURRICULUM

POSSIBILITY – INFORMATION PRIVACY

BEST PRACTICES - SCAFFOLDED CURRICULUM



Graduate Level Research Strategies

Advanced: Discipline Specific Customized Workshops

COMM 1315: Metacognition & Research Strategies

ENGL 1301/1302: Research Basics

GS 1181: Intro Critical Thinking & Metacognition

BEST PRACTICES – LIVE INFORMATION LITERACY INSTRUCTION SESSIONS

Active Learning

Interactive Lecture

Hands-on Searching

Review Sessions

Reflection Activities

Brainstorming Synonyms

Relevant Search

Search Game

Mind Mapping

ASSESSMENT: THE BIG PICTURE

HOW DO WE KNOW OUR GOALS WITH REGARD TO MEETING THESE STANDARDS ARE WORKING?



ASSESSMENT: THE BIG PICTURE

NATIONAL SURVEY OF STUDENT ENGAGEMENT (NSSE) 2019 ENGAGEMENT INDICATORS:

4. DURING THE CURRENT SCHOOL YEAR, HOW MUCH HAS YOUR COURSEWORK EMPHASIZED THE FOLLOWING?

FIRST-YEAR STUDENTS

Higher-Order Learning	ASU	Percentage point difference ^a between your FY students and		
		Southwest Public	Carnegie Class	SACSCOC Peers
<i>Percentage responding "Very much" or "Quite a bit" about how much coursework emphasized...</i>	%			
4b. Applying facts, theories, or methods to practical problems or new situations	67	-1	-2	+1
4c. Analyzing an idea, experience, or line of reasoning in depth by examining its parts	70	+3	+2	+5
4d. Evaluating a point of view, decision, or information source	69	+2	-1	+1
4e. Forming a new idea or understanding from various pieces of information	72	+5	+3	+5
		Percentage point difference ^a between your seniors and		
		Southwest Public	Carnegie Class	SACSCOC Peers
<i>Percentage responding "Very much" or "Quite a bit" about how much coursework emphasized...</i>	%			
4b. Applying facts, theories, or methods to practical problems or new situations	79	+3	+1	+1
4c. Analyzing an idea, experience, or line of reasoning in depth by examining its parts	77	+2	+1	+1
4d. Evaluating a point of view, decision, or information source	75	+5	+2	+3
4e. Forming a new idea or understanding from various pieces of information	76	+4	+2	+3

SENIORS

ASSESSMENT: THE ASU PICTURE

2018 ASU STUDENT SATISFACTION INVENTORY

- LIBRARY STAFF ARE HELPFUL AND APPROACHABLE. **+4%** OVER OTHER NATIONAL FOUR YEAR PUBLICS
- LIBRARY RESOURCES AND SERVICES ARE ADEQUATE. **+13%** OVER OTHER NATIONAL FOUR YEAR PUBLICS

IDEA STUDENT RATINGS OF INSTRUCTION SYSTEM

- EVALUATING EFFECTIVENESS OF FACULTY TEACHING THAT FACILITATES STUDENT PROGRESS
- 13 LEARNING OBJECTIVES ARE INCLUDED, OF WHICH SEVERAL ENCOMPASS SKILLS POTENTIALLY IMPACTED BY INFORMATION LITERACY. ONE IN PARTICULAR STANDS OUT AND IS INTENDED BY THE DESIGNERS OF IDEA TO SPECIFICALLY ADDRESS INFORMATION:

“LEARNING HOW TO FIND, EVALUATE, AND USE RESOURCES TO EXPLORE A TOPIC IN DEPTH”

- IF THIS OBJECTIVE HAS BEEN OR IS CHOSEN AS SIGNIFICANT FOR A COURSE, THE LIBRARY CAN ASSIST YOU AND YOUR STUDENTS MAXIMIZE THEIR MASTERY OF THIS OBJECTIVE

ASSESSMENT: THE LIBRARY PICTURE

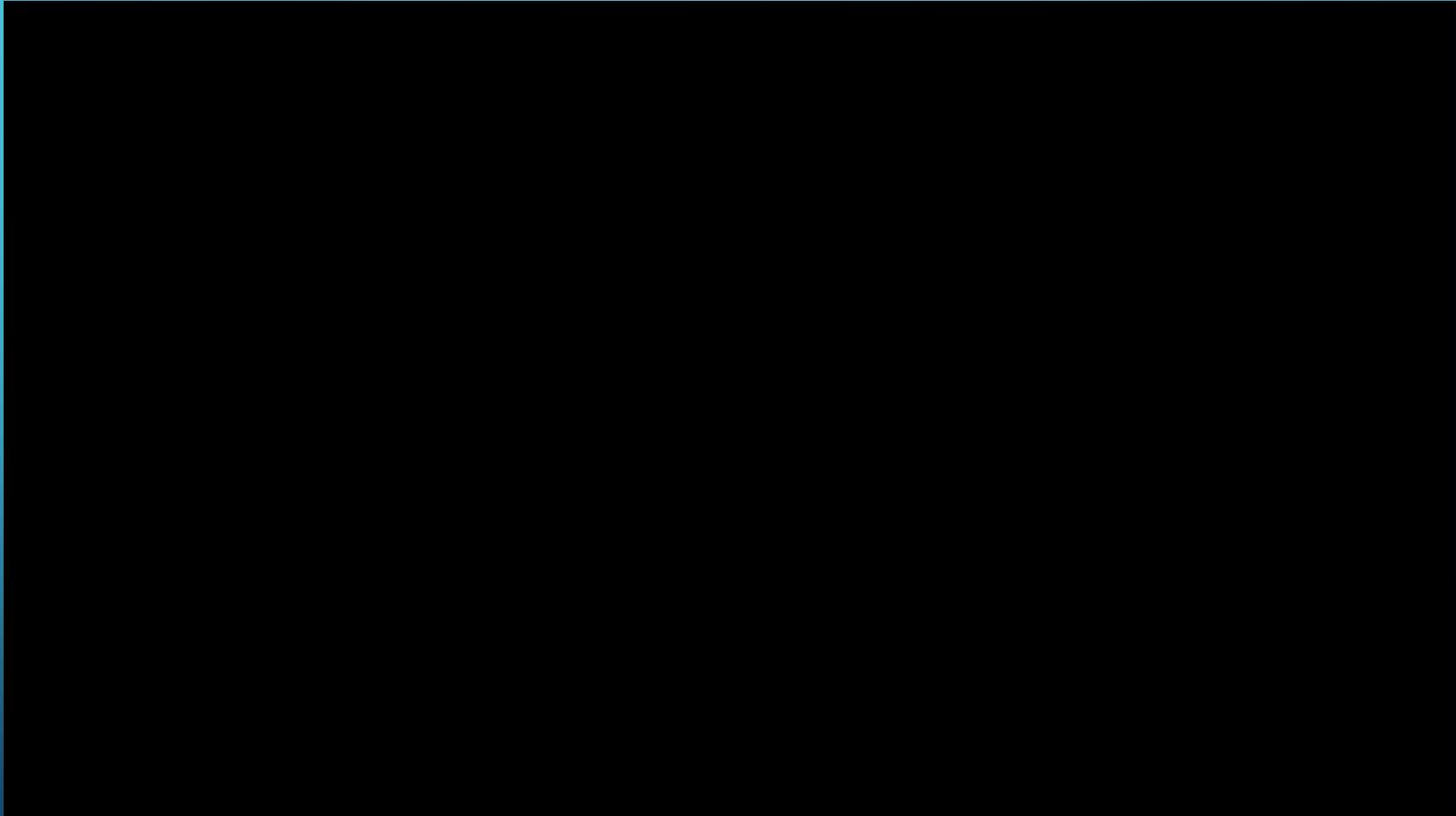
ANGELO STATE ASSESSMENT EFFORTS

- LIBRARY SURVEYS STUDENT & FACULTY SURVEYS
- PRETEST/POST TEST OF IN-PERSON INSTRUCTION
- AUTHENTIC ASSESSMENT BY WAY OF EVALUATING STUDENTS WORKSHEETS COMPLETED DURING ACTIVE LEARNING SESSIONS
- BLACKBOARD ONLINE TUTORIAL QUIZZES

THE BOTTOM LINE

- THE ASU LIBRARY INCORPORATES BEST PRACTICES INTO ITS DIGITAL AND INFORMATION LITERACY PROGRAM
- THE ASU LIBRARY WORKS TO SUPPORT THE UNIVERSITY'S MISSION AND LEARNING GOALS
- FACULTY CAN UTILIZE THE LIBRARY'S RESOURCES, INCLUDING ITS INFORMATION LITERACY PROGRAM, TO SUPPORT THEIR STUDENT'S COURSE, RESEARCH, AND OTHER ACADEMIC EXPERIENCES
- INSTITUTIONAL ASSESSMENT PRACTICES ENCOMPASS THE LIBRARY AND THE INFORMATION LITERACY PROGRAM
- LEARNING HOW TO FIND, EVALUATE, AND UTILIZE RESOURCES SERVES TO PREPARE STUDENTS FOR ACTIVE LIFELONG LEARNING

NAP'S OVER – NOW FOR THE IMPORTANT NOSE (NEWS)



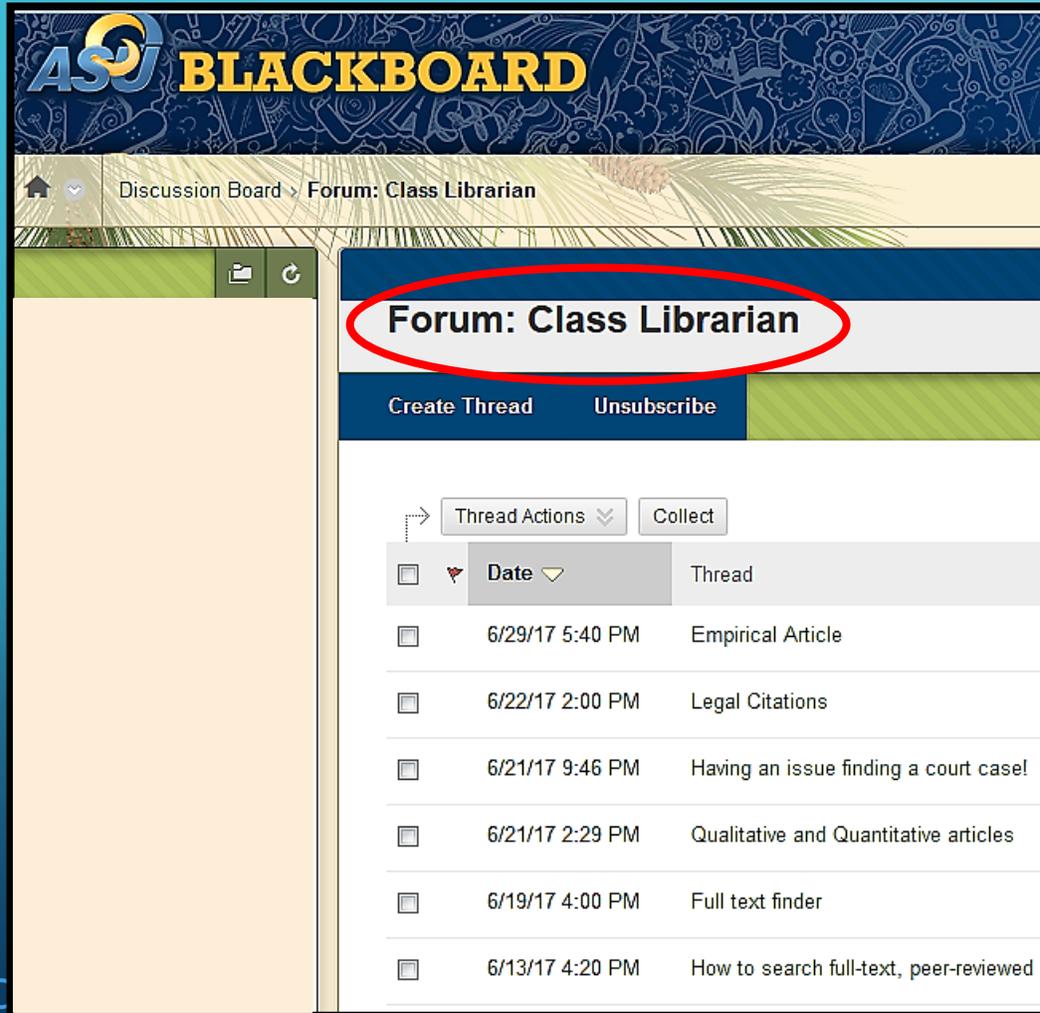
PARTNERING WITH THE LIBRARY AND eLEARNING

LIBRARY SERVICES TO ENHANCE DIGITAL LITERACY & CRITICAL THINKING SKILLS



PARTNERING WITH THE LIBRARY AND eLEARNING

Class Librarian: Embedding in Blackboard Courses



The screenshot shows the Blackboard interface for a course. At the top, the ASU Blackboard logo is visible. Below it, the breadcrumb navigation reads 'Discussion Board > Forum: Class Librarian'. The main content area features a header for 'Forum: Class Librarian' which is circled in red. Below this header are buttons for 'Create Thread' and 'Unsubscribe'. A table of discussion threads is displayed, with columns for 'Date' and 'Thread'. The threads listed are:

	Date	Thread
<input type="checkbox"/>	6/29/17 5:40 PM	Empirical Article
<input type="checkbox"/>	6/22/17 2:00 PM	Legal Citations
<input type="checkbox"/>	6/21/17 9:46 PM	Having an issue finding a court case!
<input type="checkbox"/>	6/21/17 2:29 PM	Qualitative and Quantitative articles
<input type="checkbox"/>	6/19/17 4:00 PM	Full text finder
<input type="checkbox"/>	6/13/17 4:20 PM	How to search full-text, peer-reviewed

Place librarians directly in Blackboard courses:

Librarians provide focused guidance to help students:

- Select quality sources for assignments
- Discover appropriate subject databases
- Build confidence in their search skills from seeking assistance

Address Dunning-Kruger Effect

- Easier for students to ask questions
- Students can learn from each other

PARTNERING WITH THE LIBRARY AND eLEARNING

Class Librarian: Embedding in Blackboard Courses

I am in need of assistance, I have search for three days only to reach dead-ends. I am no closer to starting my writing assignment but I am extremely frustrated.

I have been told that we can find journals through the library online, but I have no clue how to do that.

Which database/search platforms are best for caselaw research?

I need to find peer-reviewed articles for my assignment. What does that mean and how do I do it?

PARTNERING WITH THE LIBRARY AND eLEARNING

Ask-a-Librarian: Discussion Boards in Blackboard

Coming Fall 2019!

- For all ASU students
- Ask research based questions
- Receive research assistance from ASU librarians
- Librarians share tips and strategies for research
- Learn from questions asked by other students

PARTNERING WITH THE LIBRARY AND eLEARNING

Blackboard Information Literacy Tutorials



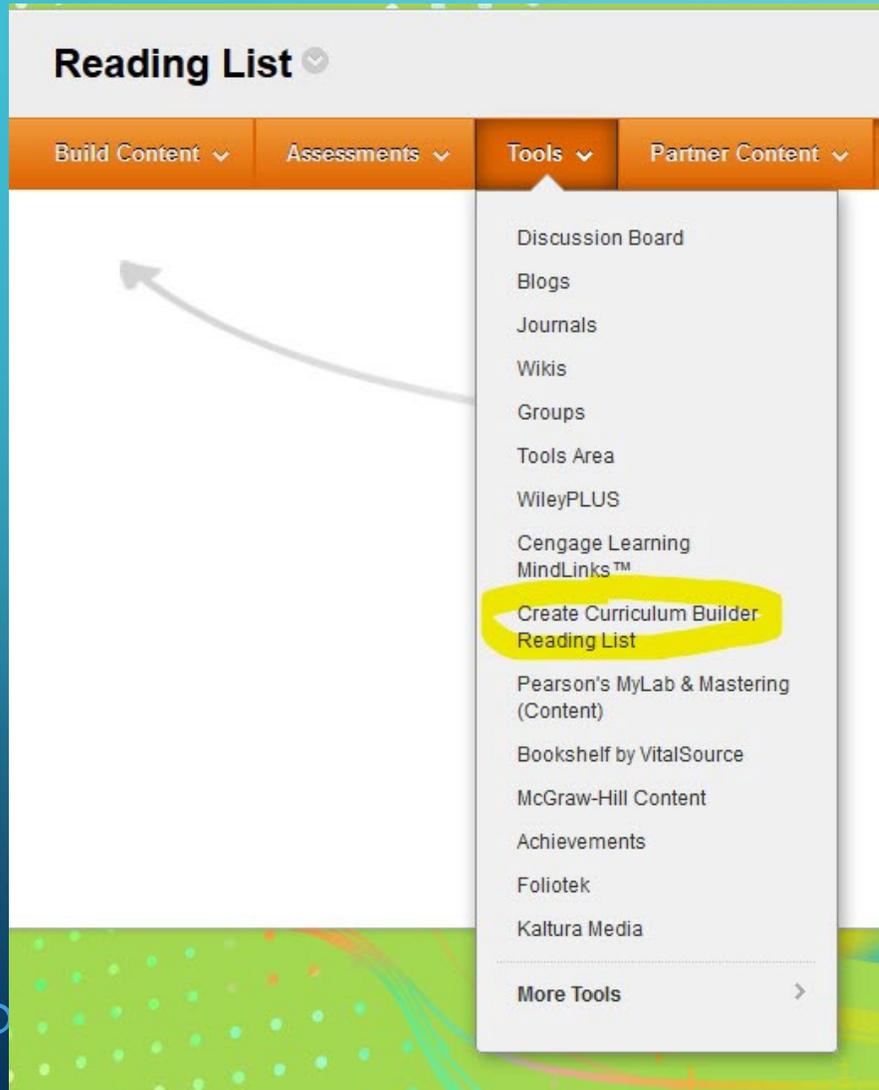
Use to meet Critical Thinking SLO
“Gather, analyze, evaluate, and synthesize information relevant to a question or issue.”

Introduces students to understanding, locating, critical thinking/evaluating, and ethical use of information

Recommended for any course with a research assignment

PARTNERING WITH THE LIBRARY AND eLEARNING

Curriculum Builder for Blackboard



Build Reading Lists in Blackboard:

Link articles, videos, eBooks, and websites to your Blackboard Course:

Remain in compliance with copyright

Keeps student resources in one convenient location

Help offset cost of textbooks

Helps library monitor usage statistics to see what resources are important to you

PARTNERING DIRECTLY WITH THE LIBRARY

PUTTING IT ALL TOGETHER



PARTNERING DIRECTLY WITH THE LIBRARY

New to Angelo State University



Library / Research Guides / Using the ASU Library / 1. Getting to Know the Library's Website

Using the ASU Library

Guidelines for getting familiar with using the library's website and its many resources. Highly recommended for anyone new to Angelo State University!

1. Getting to Know the Library's Website

[Get to Know the Library's Website in Under 15 Minutes!](#)

[Overview of the Library's Homepage](#)

[Where to Search for Information](#)

[Ask a Librarian](#)

[2. Off Campus Access to Databases](#)

[3. Evaluating Sources](#)

[4. Citing Sources](#) [↗](#)

Related Guides

- [Basic Library Research & Writing](#)

Get to Know the Library's Website in Under 15 Minutes!

Welcome! This page contains 3 short videos to help you find what you need on the Library's website.

- **Overview of the Library's Homepage** has one video that takes you on a brief tour of the key features most students use.
- **Where to Search for Information** features two videos introducing uses for the 5 tabs in the search box.

Overview of the Library's Homepage

This video points out key features on the library's homepage:

- **Library Hours, Contact Us,** and other quick links
- **The Tabbed Search Box**
- **News & Events**
- **Today's Hours**
- **Social Media**
- **Federal Depository Library**

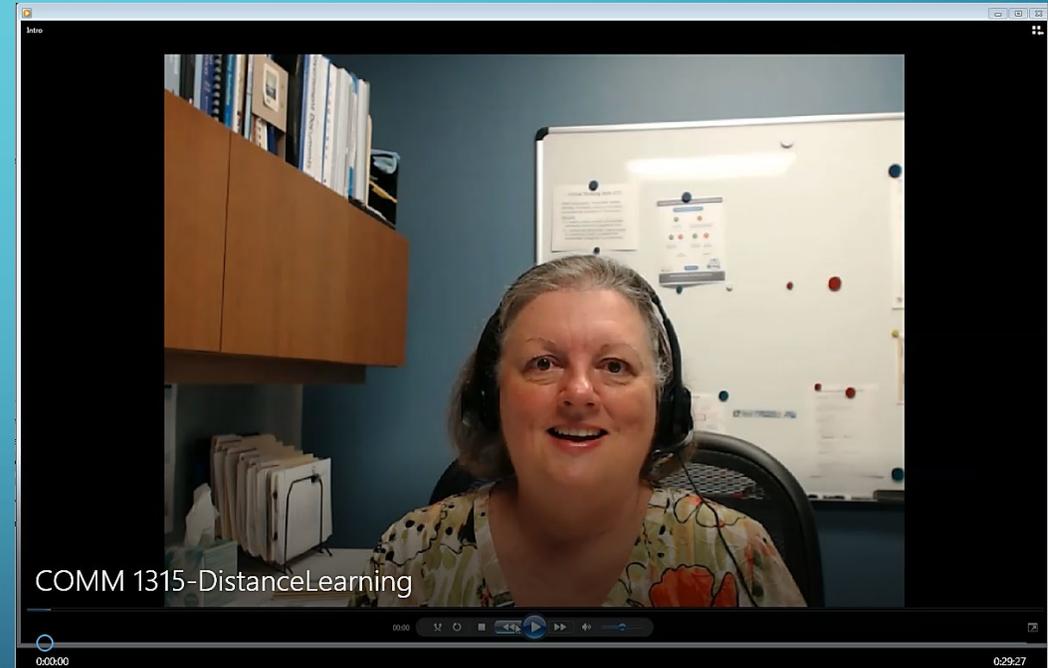
PARTNERING DIRECTLY WITH THE LIBRARY

INFORMATION LITERACY INSTRUCTION SESSIONS

Synchronous



Asynchronous



PARTNERING DIRECTLY WITH THE LIBRARY

TRAIN THE TRAINER (YOU!)

WHY

Scheduling Conflicts

- Summer Sessions / 8-Week Courses
- Other Scheduling Conflicts

You want to be a librarian! 😊

WHAT

Work with you on:

- Best resources for your class
- Best research strategies
- Your own research needs

Remember:

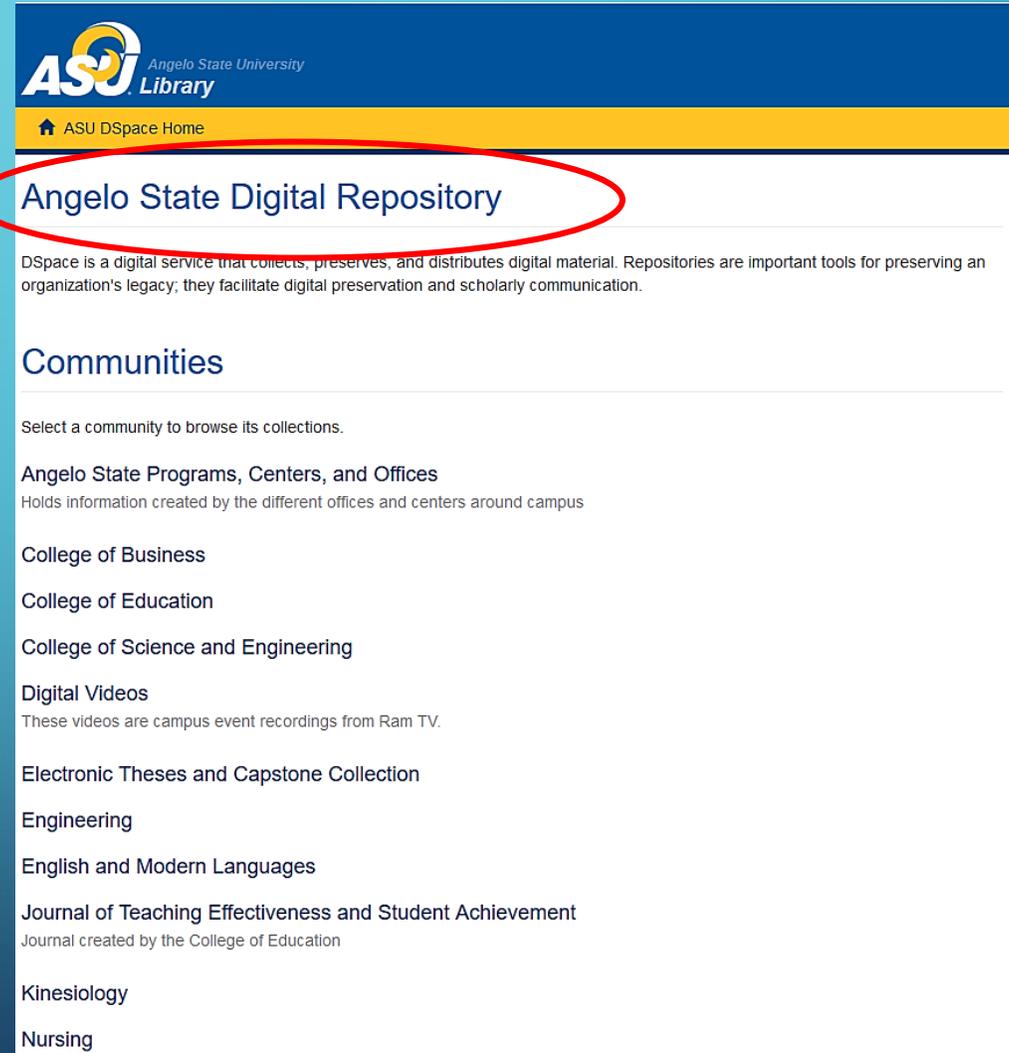
Librarians keep up-to-date on changing content, platforms, and information seeking behaviors.

PUTTING IT ALL TOGETHER

Transforming Your Students Into Information Content Creators in a Digital World

Bloom's Digital Taxonomy
ACRL: Scholarship as Conversation

Capstone Projects
Published Student Papers
Student Presentations



ASU Angelo State University
Library

ASU DSpace Home

Angelo State Digital Repository

DSpace is a digital service that collects, preserves, and distributes digital material. Repositories are important tools for preserving an organization's legacy; they facilitate digital preservation and scholarly communication.

Communities

Select a community to browse its collections.

- Angelo State Programs, Centers, and Offices**
Holds information created by the different offices and centers around campus
- College of Business
- College of Education
- College of Science and Engineering
- Digital Videos
These videos are campus event recordings from Ram TV.
- Electronic Theses and Capstone Collection
- Engineering
- English and Modern Languages
- Journal of Teaching Effectiveness and Student Achievement
Journal created by the College of Education
- Kinesiology
- Nursing

REFERENCES

- 2018 ASU Student Satisfaction Inventory <https://www.angelo.edu/content/files/25583-student-satisfaction-inventory-spring-2018>
- American Library Association Digital Literacy Taskforce <https://connect.ala.org/communities/community-home/digestviewer/viewthread?MessageKey=2DAA16C6-349F-47DE-B4EF-49901555A7D0>
- Angelo State University Undergraduate Learning Goals https://www.angelo.edu/academic_outcomes_assessment/
- Angelo State University Graduate Student Learning Goals: https://www.angelo.edu/academic_outcomes_assessment/grad_stud_learning_goals.php
- Developing a Campus Framework for Digital Literacy <https://acrlog.org/2018/05/02/developing-a-campus-framework-for-digital-literacy/comment-page-1/>
- Framework for Information Literacy for Higher Education <http://www.ala.org/acrl/standards/ilframework>
- Idea Student Ratings of Instruction: Some Thoughts on Selecting IDEA Objectives <https://www.angelo.edu/content/files/23312-idea-some-thoughts>
- IDEA Objectives Selection Form: Sample Faculty Form <https://www.angelo.edu/content/files/23313-idea-sample-sri-osf>

REFERENCES (CONTINUED)

- Mallon, M.N. (2018). *The Pivotal Role of Academic Librarians in Digital Learning*. Santa Barbara, California: Libraries Unlimited.
- NSSE 2017 Engagement Indicators: Angelo State University <https://www.angelo.edu/content/files/24845-nsse-2017-engagement-indicators-reportpdf>
- NSSE 2019 Engagement Indicators – Angelo State University <https://www.angelo.edu/content/files/26614-2019-engagement-indicators-reportpdf>
- Proposing a Metaliteracy Model to Redefine Information Literacy <https://eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=EJ1089056>
- School Library Programs: Standards and Guidelines for Texas <https://www.tsl.texas.gov/ldn/schoollibrarystandards>
- State of Critical Thinking Survey 2019 <https://www.mindedge.com/resources/critical-thinking-survey-2019/>
- Texas Core Curriculum <http://www.theccb.state.tx.us/reports/PDF/10751.PDF>
- Perchance to Snore <https://vimeo.com/290736439>