Assessing Core Competencies: Results of Threshold Assessment for Information Literacy

Graduating Seniors
2019 Fañomnåkan (Spring)

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UNIBETSEDÅT GUAHAN

Assessing Core Competencies: Results of Threshold Achievement Test for Information Literacy (TATIL)

2019 Fañomnåkan (Spring)

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Threshold Achievement Test for Information Literacy (TATIL) 2019 Fañomåkan

Module 1: Evaluating Process & Authority

TATIL Pilot in AY 2016-2017

Following a recommendation by UOG's Gen Ed consultant in 2015 to utilize Carrick Enterprises' Threshold Achievement Test for Information Literacy (TATIL), UOG faculty Dr. Chris Garcia and Mr. Roland San Nicolas examined the instrument and volunteered to participate in Carrick's institutional pilot. The pilot began in Fañomåkan (Spring) 2016 with a number of EN-111 faculty administering Modules 1 & 2 in their courses, which then continued into Fanuchånan (Fall) 2017 with Modules 3 & 4. After the pilot concluded and Carrick released TATIL for institutional use, preparations to administer TATIL to graduating seniors in Fañomåkan 2019 began. For information about TATIL see Appendix A or visit www.thresholdachievement.com.

About the Test

The TATIL instrument is comprised of four testing modules which the Office of Institutional Effectiveness administers to graduating seniors over the course of four semesters. The four modules include: 1) Evaluating Process & Authority, 2) Strategic Searching, 3) Research & Scholarship, and 4) The Value of Information. Module 1 was administered during the 2019 Fañomåkan semester More details of each module can be found in Appendix A.

Module 1 measures two outcomes:

1.1) Apply Knowledge of source creation process and context to evaluate the authority of a source

1.2) Apply knowledge of authority to analyze others' claims and to support one's own claims

Scoring the Test

For this test, scores are presented on a 1,000-point scale with 1,000 being a perfect score. For uniformity with the Carrick generated report, Appendix B, this report used standard error as opposed to standard deviation. "The standard error indicates the likely range of scores if the test were given again to the same students" (Carrick 2019). For example, a mean score of 532±7 indicates a true score for a student will fall between 525 and 539.

To align with reporting practices used to assess Critical Thinking and Quantitative Literacy, test takers who spent less than 12 minutes to complete their assessment were removed from the aggregated results. Four students were removed from analysis, but still appear in Appendix B.

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Knowledge Scores Summary

Graduating seniors scored a **532** for Overall Knowledge, **504** for Outcome 1.1, and **568** for Outcome 1.2. For each of these average scores, students fall under the "College Ready" performance level, which is considered the moderate category. Students in this category are able to make distinctions between the authority of different sources, follow clear and detailed assignment instructions regarding expected information sources, and select the more authoritative source for their specific needs based on their evaluation.

Overall Knowledge Results
2019 Fañomnåkan

- Conditionally Ready
- College Ready
- Research Ready
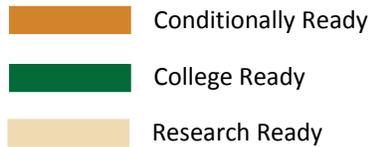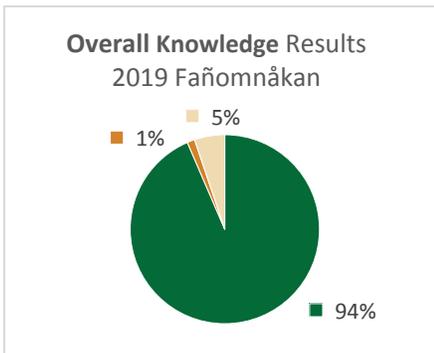
A more detailed explanation for the *Conditionally Ready*, *College Ready*, and *Research Ready* performance levels can be found on pages 3-4 of Appendix B.

Student Literacy Dispositions Summary

Along with knowledge scores, Module 1 assesses the following Information Student Literacy Dispositions:

       1.1) Mindful self-reflection

       1.2) Toleration of ambiguity

       1.3) Responsibility to community

Seniors scored a **52** for mindful self-reflection, **57** for Toleration of ambiguity, and **64** for Responsibility to community. For each disposition, scores fall in the "Moderate" Category. Students who fall in this category might experience strain when other dispositions clash with their information literacy dispositions. These students are more easily guided to apply their dispositions; however, they may not be consistent when faced with new challenges (Carrick 2019). Detailed example behaviors of each disposition can be found on pages 3-4 of Appendix A.
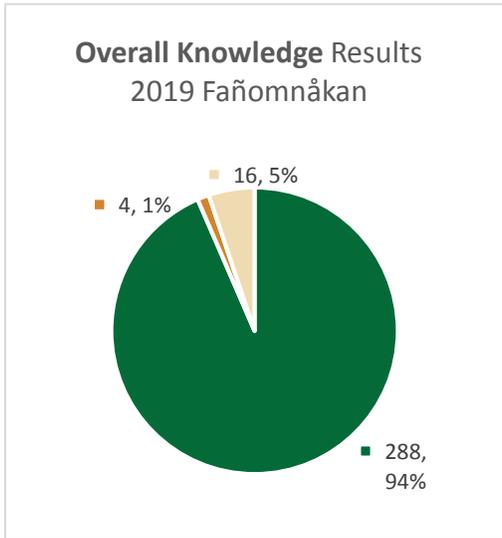
Recommendations for Improvement

With 94% of seniors falling in the "College Ready" category, there is room for improvement. Recommendations to graduate more "Research Ready" seniors include: 1) Increasing Library Outreach; 2) Have more points of access for information literacy in Capstone courses, Tier 2 Courses which report on Information Literacy, research and writing courses, and all CT101 courses; and 3) Develop another Information Literacy Classroom with 35 Desktop Computers (San Nicolas, 2019). Please reference Appendix C for San Nicolas' "2019 State of Information Literacy at the University of Guam" which was presented at the Pacific Islands Association of Libraries, Archives, and Museums (PIALA) conference in November 2019.

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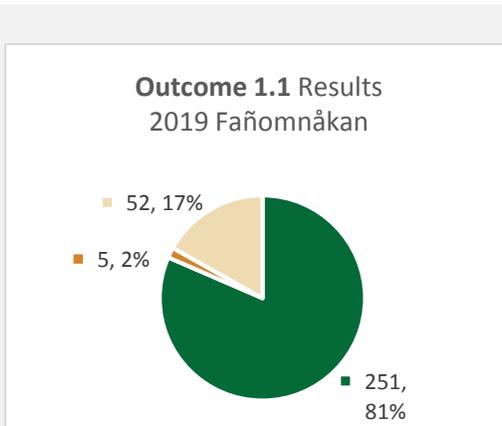
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2019 Fañomnåkan Graduating Seniors TATIL Scores

Overall Knowledge Results
2019 Fañomnåkan

16, 5%
4, 1%
288, 94%

Overall Knowledge

Knowledge items are based on information literacy outcomes and performance indicators (found in Appendix A). Items assess an array of cognitive processes that college students develop as they transition from pre-college to college-ready to research-ready.
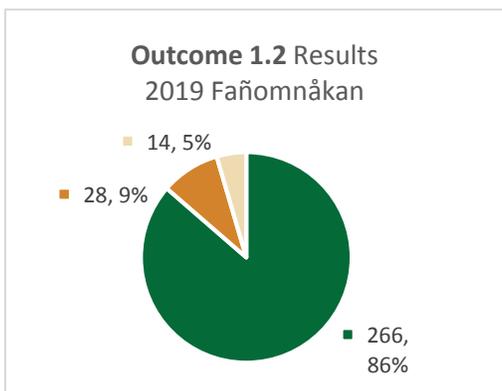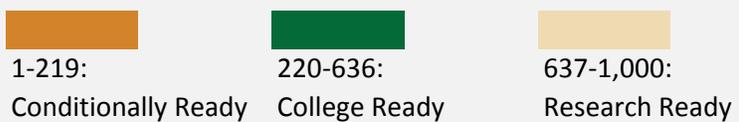
A student's overall score is the mean of their item scores, where the UOG Overall Knowledge score is the mean of all student scores.

1-269: Conditionally Ready

270-721: College Ready

722-1,000: Research Ready

Outcome 1.1 Results
2019 Fañomnåkan

52, 17%
5, 2%
251, 81%

Outcome 1.1
Apply knowledge of source creation processes and context to evaluate the authority of a source.

Performance Indicators 1.1.1 through 1.1.12 can be found on page 2 in Appendix A.

1-219: Conditionally Ready

220-636: College Ready

637-1,000: Research Ready

Outcome 1.2 Results
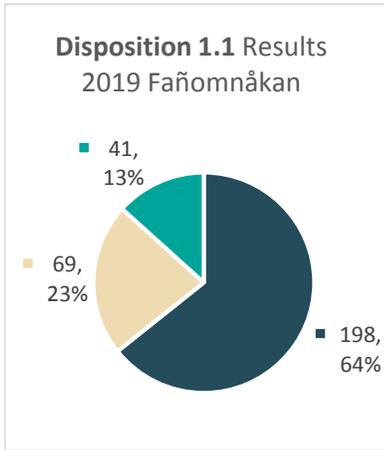2019 Fañomnåkan

14, 5%
28, 9%
266, 86%

Outcome 1.2
Apply knowledge of authority to analyze others' claims and to support one's own claims.

Performance Indicators 1.2.1 through 1.2.12 can be found on page 3 of Appendix A.

1-348: Conditionally Ready

349-828: College Ready

829-1,000: Research Ready

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2019 Fañomnåkan Graduating Seniors TATIL Disposition Results

Disposition 1.1 Results
2019 Fañomnåkan

41, 13%
69, 23%
198, 64%

Disposition 1.1 - Mindful self-reflection
Learners who are disposed to demonstrate self-reflection when they are evaluating sources of information consistently question their assumptions about what makes a source authoritative.

Our seniors' mean score for mindful self-reflection fall in the moderately-disposed range. Scores in this range suggest that students are able to recognize the difference between their own information preferences and the sources considered authoritative by the acadmic community.

0-42: Weak   43-65: Moderate   66-100: Strong

Disposition 1.2 - Toleration of ambiguity
Learners who are disposed to demonstrate toleration for ambiguity when they are evaluating sources of information treat authority as subjective because it is based on the context of the information need.

Our seniors' mean score for Disposition 1.2 fall in the moderately-disposed range. Scores in this range suggest that students are likely to approach source evaluation with some flexibility because they have learned from their professors the value of using challenging acadmic sources alongside the

Disposition 1.2 Results
2019 Fañomnåkan

45, 15%
51, 16%
212, 69%

0-44: Weak   45-69: Moderate   70-100: Strong

Disposition 1.3 Results
2019 Fañomnåkan

32, 10%
55, 18%
221, 72%
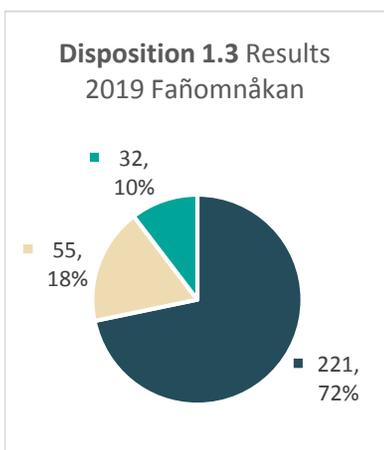
Disposition 1.3 - Responsibilty to community
Learners who are disposed to demonstrate a sense of responsibility to their community when they are evaluating sources of information are conscientious about how they invoke authority in order to gain credibility with their audiences.

Our seniors' mean score fall in the moderately-disposed range. This suggests that students are likely to have an appreciation for how to academic community values, creates, and uses sources and are thus likely to incorporate some of these sources into their own work.
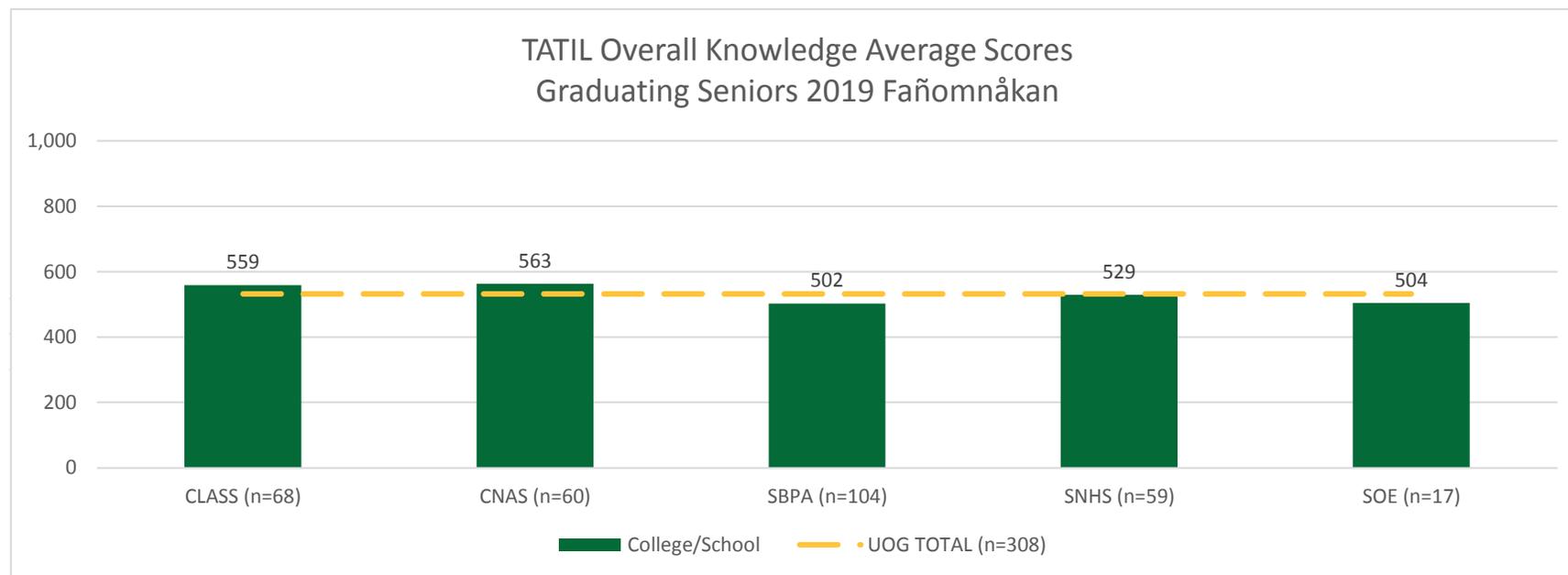
0-52: Weak   53-79: Moderate   80-100: Strong

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2019 Fañomnåkan TATIL Average Scores by College

College/School	Overall Knowledge		Outcome 1.1		Outcome 1.2		Disposition 1		Disposition 2		Disposition 3	
	Average	Standard Error	Average	Standard Error	Average	Standard Error	Average	Standard Error	Average	Standard Error	Average	Standard Error
CLASS (n=68)	559	±7	530	±8	598	±10	52	±1	57	±1	66	±1
CNAS (n=60)	563	±7	529	±8	606	±8	55	±1	57	±1	62	±1
SBPA (n=104)	502	±7	481	±8	529	±9	52	±1	56	±1	64	±1
SNHS (n=59)	529	±6	488	±7	582	±8	50	±1	59	±1	64	±1
SOE (n=17)	504	±6	511	±6	496	±9	57	±1	53	±1	64	±1
UOG TOTAL (n=308)	532	±7	504	±8	568	±9	52	±1	57	±1	64	±1

Scores are presented on a 1,000-point scale, where a perfect score is 1,000

TATIL Overall Knowledge Average Scores
Graduating Seniors 2019 Fañomnåkan

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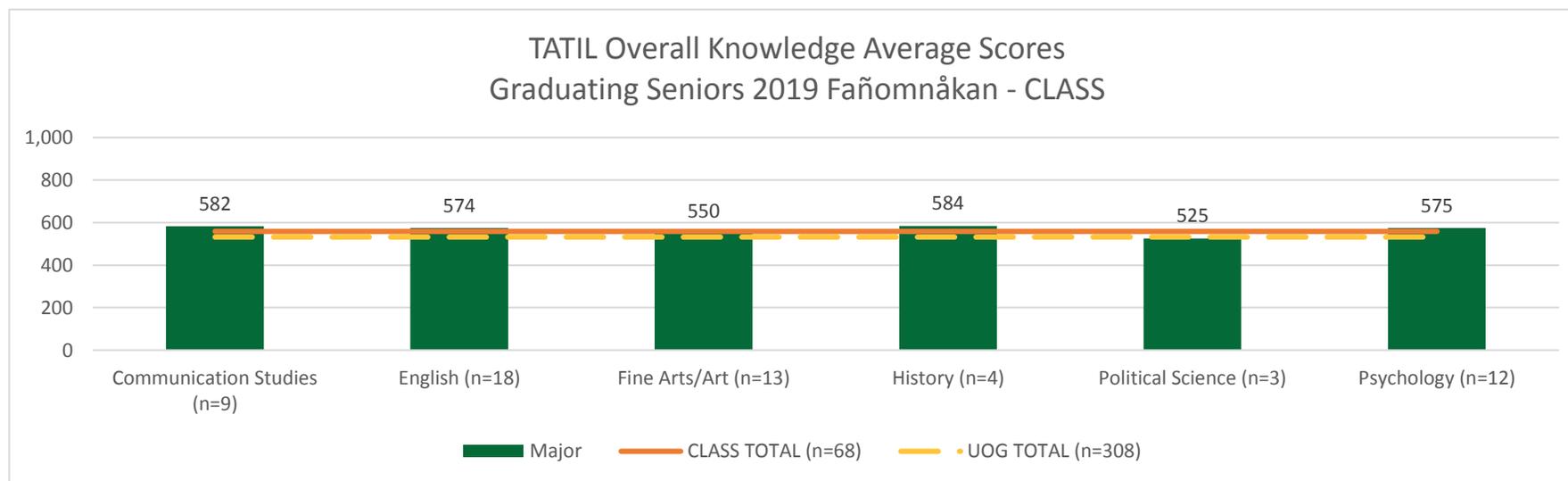*Office of Institutional Effectiveness*

2019 Fañomnåkan TATIL Average Scores - CLASS

MAJOR by College	Overall Knowledge		Outcome 1.1		Outcome 1.2		Disposition 1		Disposition 2		Disposition 3	
	Average	Standard Error	Average	Standard Error	Average	Standard Error	Average	Standard Error	Average	Standard Error	Average	Standard Error
Communication Studies (n=9)	582	±5	558	±6	615	±7	50	±1	60	±1	69	±1
English (n=18)	574	±7	563	±7	589	±11	59	±1	58	±1	65	±1
Fine Arts/Art (n=13)	550	±6	496	±7	619	±8	54	±1	58	±1	67	±1
History (n=4)	584	±11	581	±13	586	±13	38	±1	64	0	65	0
Political Science (n=3)	525	±6	477	±8	586	±4	52	±1	55	±1	68	0
Psychology (n=12)	575	±7	522	±8	641	±11	49	±1	58	±1	65	±1
CLASS (n=68)	559	±7	530	±8	598	±10	52	±1	57	±1	66	±1
UOG TOTAL (n=308)	532	±7	504	±8	568	±9	52	±1	57	±1	64	±1

Scores are presented on a 1,000-point scale, where a perfect score is 1,000

TATIL Overall Knowledge Average Scores
Graduating Seniors 2019 Fañomnåkan - CLASS

The following majors did not have enough students to report: Anthropology, Fine Arts/Music, Fine Arts/Theater, Japanese Studies, Pacific Asian Studies Program, and Sociology

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2019 Fañomnåkan TATIL Average Scores - CNAS

MAJOR by College	Overall Knowledge		Outcome 1.1		Outcome 1.2		Disposition 1		Disposition 2		Disposition 3	
	Average	Standard Error	Average	Standard Error	Average	Standard Error	Average	Standard Error	Average	Standard Error	Average	Standard Error
Biology (n=25)	602	±7	544	±8	675	±8	56	±1	58	±1	64	±1
Chemistry (n=3)	691	±5	670	±8	716	±4	57	±1	57	±1	63	±1
Computer Info Systems (n=4)	521	±7	506	±10	541	±5	59	0	56	±1	66	0
Computer Science (n=14)	528	±6	522	±9	535	±7	52	±1	57	±1	62	±1
Mathematics (n=11)	489	±7	441	±7	550	±9	53	±1	53	±1	57	±1
CNAS (n=60)	563	±7	529	±8	606	±8	55	±1	57	±1	62	±1
UOG TOTAL (n=308)	532	±7	504	±8	568	±9	52	±1	57	±1	64	±1

Scores are presented on a 1,000-point scale, where a perfect score is 1,000

TATIL Overall Knowledge Average Scores
Graduating Seniors 2019 Fañomnåkan - CNAS
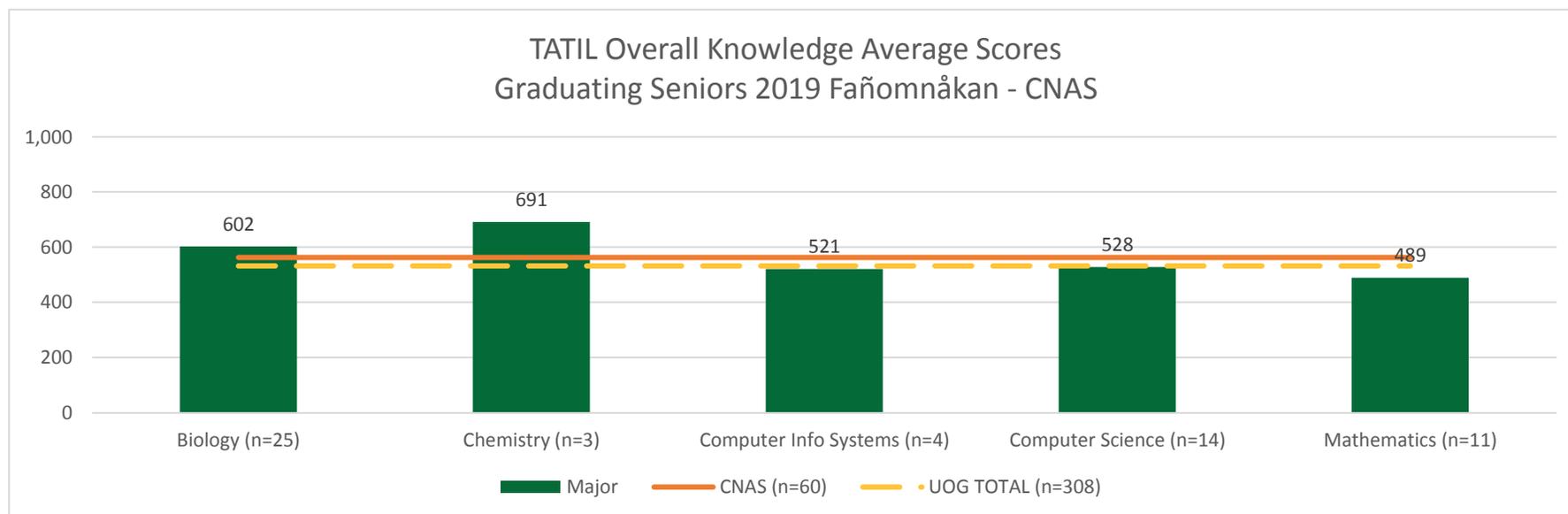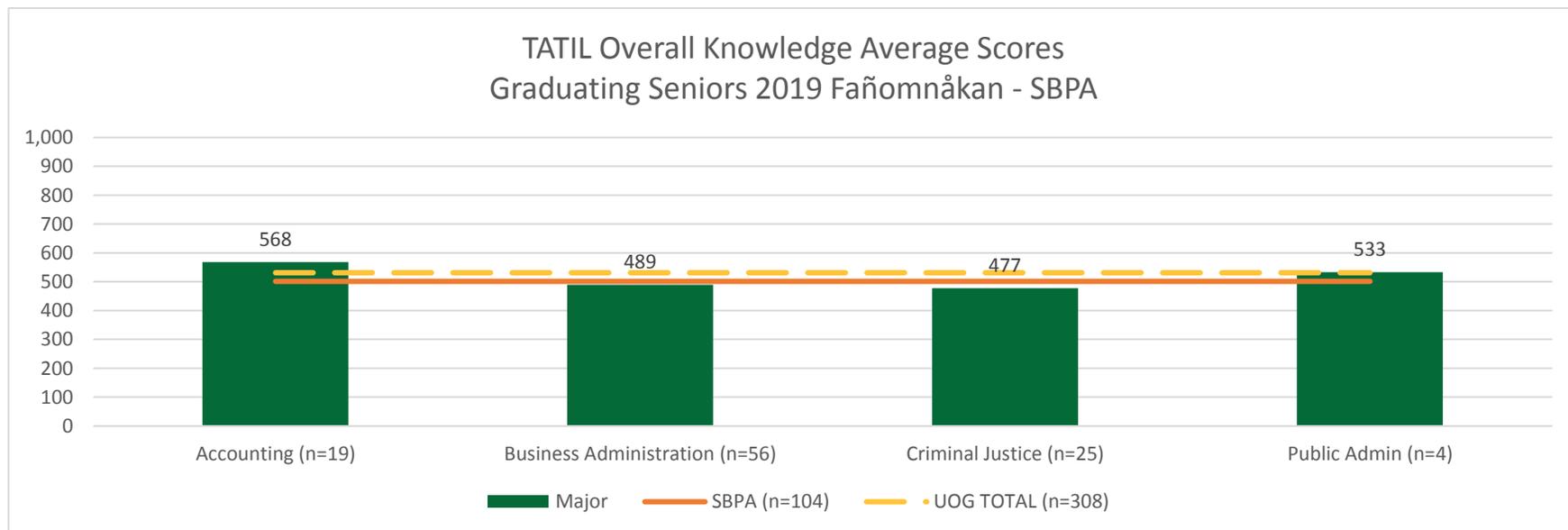
The following majors did not have enough students to report: Agriculture and Life Sciences and Tropical Agriculture Research

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2019 Fañomnåkan TATIL Average Scores - SBPA

MAJOR by College	Overall Knowledge		Outcome 1.1		Outcome 1.2		Disposition 1		Disposition 2		Disposition 3	
	Average	Standard Error	Average	Standard Error	Average	Standard Error	Average	Standard Error	Average	Standard Error	Average	Standard Error
Accounting (n=19)	568	±8	538	±8	606	±11	48	±1	62	±1	70	±1
Business Administration (n=56)	489	±7	477	±7	504	±9	54	±1	54	±1	64	±1
Criminal Justice (n=25)	477	±6	444	±8	519	±6	51	±1	56	±1	60	±1
Public Admin (n=4)	533	±8	492	±10	585	±10	61	±1	58	±1	72	±1
SBPA (n=104)	502	±7	481	±8	529	±9	52	±1	56	±1	64	±1
UOG TOTAL (n=308)	532	±7	504	±8	568	±9	52	±1	57	±1	64	±1

Scores are presented on a 1,000-point scale, where a perfect score is 1,000

TATIL Overall Knowledge Average Scores
Graduating Seniors 2019 Fañomnåkan - SBPA

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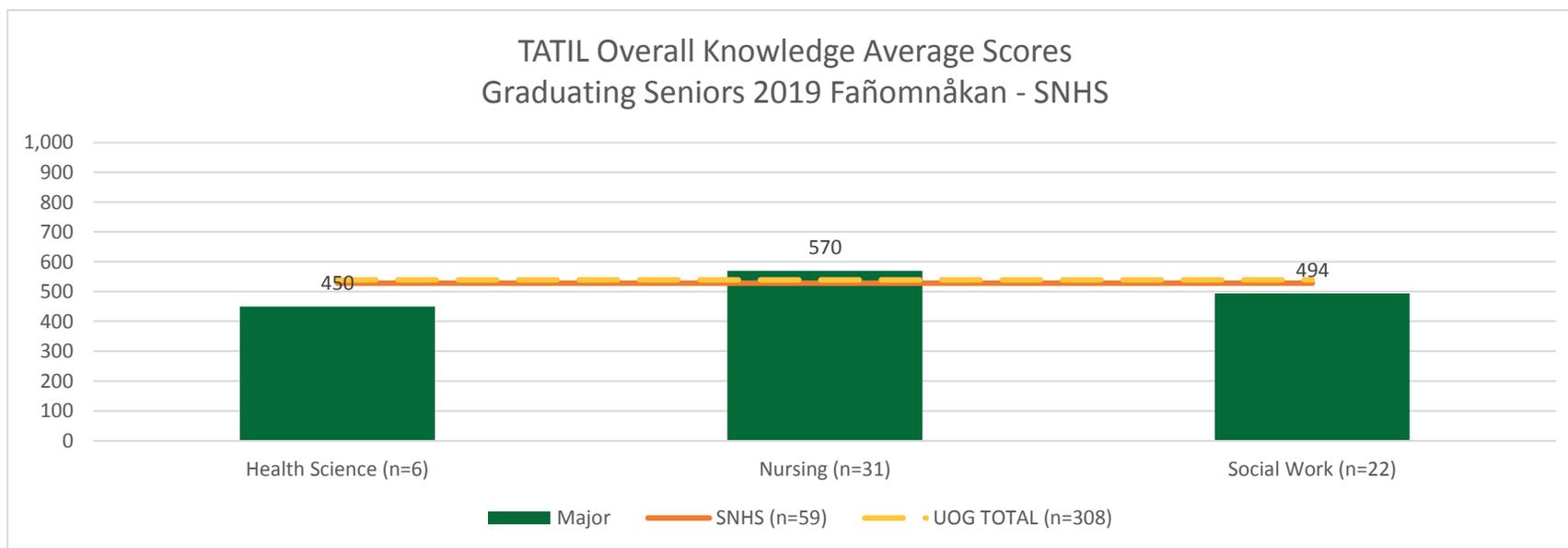*Office of Institutional Effectiveness*

2019 Fañomnåkan TATIL Average Scores - SNHS

MAJOR by College	Overall Knowledge		Outcome 1.1		Outcome 1.2		Disposition 1		Disposition 2		Disposition 3	
	Average	Standard Error	Average	Standard Error	Average	Standard Error	Average	Standard Error	Average	Standard Error	Average	Standard Error
Health Science (n=6)	450	±6	386	±13	529	±2	47	±1	58	±1	58	±1
Nursing (n=31)	570	±6	544	±5	604	±9	53	±1	59	±1	69	±1
Social Work (n=22)	494	±6	438	±6	565	±7	46	±1	59	±1	60	±1
SNHS (n=59)	529	±6	488	±7	582	±8	50	±1	59	±1	64	±1
UOG TOTAL (n=308)	532	±7	504	±8	568	±9	52	±1	57	±1	64	±1

Scores are presented on a 1,000-point scale, where a perfect score is 1,000

TATIL Overall Knowledge Average Scores
Graduating Seniors 2019 Fañomnåkan - SNHS

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2019 Fañomnåkan TATIL Average Scores - SOE

MAJOR by College	Overall Knowledge		Outcome 1.1		Outcome 1.2		Disposition 1		Disposition 2		Disposition 3	
	Average	Standard Error	Average	Standard Error	Average	Standard Error	Average	Standard Error	Average	Standard Error	Average	Standard Error
Early Childhood (n=5)	422	±7	467	±7	365	±6	59	±1	57	±1	60	±1
Elementary Education (n=5)	529	±1	489	±6	580	±9	52	0	58	±1	61	±1
Special Education (n=3)	527	±6	541	±4	509	±9	65	0	39	±1	72	0
SOE (n=17)	504	±6	511	±6	496	±9	57	±1	53	±1	64	±1
UOG TOTAL (n=308)	532	±7	504	±8	568	±9	52	±1	57	±1	64	±1

Scores are presented on a 1,000-point scale, where a perfect score is 1,000

TATIL Overall Knowledge Average Scores
Graduating Seniors 2019 Fañomnåkan - SOE
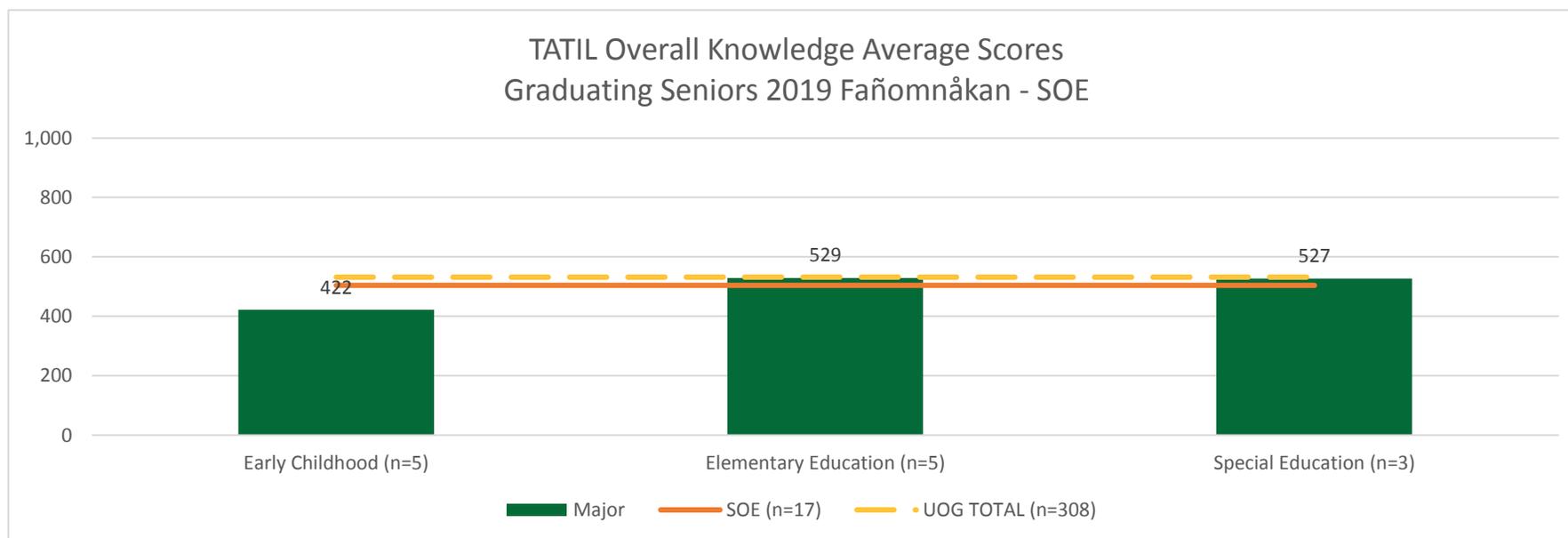
The following majors did not have enough students to report: Chamorro Language and Cultural Teaching, Physical Education/School Health, Secondary Education, and Secondary Education-General Science

Source: TATIL Results; Carrick Enterprises

References

Carrick Enterprises (2019). Test modules. Retrieved from https://thresholdachievement.com/the-test/test-modules

San Nicolas, R. (2019). 2019 State of Information Literacy at the University of Guam. [34-46].

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Module Descriptions

CarrickEnterprises.com

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https://thresholdachievement.com/files/Module-Descriptions.pdf

Module 1: Evaluating Process & Authority

This module focuses on the process of information creation and the constructed and contextual nature of source authority. There are two knowledge outcomes and three dispositions that make up this module.

Outcome 1.1: Apply knowledge of source creation processes and context to evaluate the authority of a source.

Performance Indicators:

1.1.1:   Match a description of a creation process to the source type it describes.

1.1.2:   Match the source type with the amount of time it usually takes to publish it.

1.1.3:   Match the elements of a source record to what they reveal about the process used to create the source (e.g., publisher name, authors' names, date, subject terms, source type).

1.1.4:   Match a description of a review process, such as editorial and peer review, to the source type it describes.

1.1.5:   Arrange a sample set of sources into their appropriate positions on the information cycle.

1.1.6:   Match an information need to the most authoritative source types (e.g., news agency, government website, scholarly article) for fulfilling that need.

1.1.7:   Identify the audience for whom a source was created.

1.1.8:   Identify types of scholarly products and communication modes that fall outside of the typical publication processes but are still worthy of use (e.g., conference presentations, contributed papers, discussions on association websites).

1.1.9:   Identify relevant questions to ask about sources' origins and context when considering them as support for a claim.

1.1.10:   Identify factors that would compromise the authority of the peer review process.

1.1.11:   Match descriptions of popular, polemic, and primary documents to scenarios where it would be appropriate to use them.

1.1.12:   Recognize that information is created to serve varying interests of information consumers.

Outcome 1.2: Apply knowledge of authority to analyze others' claims and to support one's own claims

Performance Indicators:

1.2.1:   Identify the sponsor, organization, or institution that provides support for a site.

1.2.2:   Identify relevant elements of an author's expertise.

1.2.3:   Know the importance of determining the author when evaluating the authority of a source.

1.2.4:   Recognize that polished, visually appealing presentation of web content does not equate to authoritative, high-quality content.

1.2.5:   Recognize that expertise is contextual and positional (e.g., credentials alone are not a per se indicator of author's expertise).

1.2.6:   Identify relevant questions to ask about the suitability of a source when considering it as support for a claim.

1.2.7:   Identify information directly relevant to an argument.

1.2.8:   Recognize the pitfalls of using the superficial indicator "peer review" when evaluating sources for authority.

1.2.9:   Recognize when a quote from a well-known author or recognized expert is being used by an author to gain authority.

1.2.10:   Evaluate the effectiveness of an author's use of different source types (e.g., news, research articles, blogs) to support arguments.

1.2.11:   Determine the reason why a quote is used in a given passage (e.g., show significance, give authoritative support, provide context, emphasize, summarize).

1.2.12:   Distinguish the key works cited in a passage from the peripheral works.

Disposition 1.1: Mindful self-reflection

Learners who are disposed to demonstrate self-reflection when they are evaluating sources of information consistently question their assumptions about what makes a source authoritative.

Example behaviors:

- Looking for features that challenge one's assumptions about the trustworthiness of one's preferred sources.

- Questioning one's own assumptions about the reliability of traditional forms of scholarly authority.

- Recognizing when there are good reasons to change one's position on an issue.

Disposition 1.2: Toleration of ambiguity

Learners who are disposed to demonstrate toleration for ambiguity when they are evaluating sources of information treat authority as subjective because it is based on the context of the information need.

Example behaviors:

- Deciding what to do when authorities disagree.

- Flexibly using traditional and non-traditional information sources at appropriate points in the research process.

- Treating authority as a flexible concept when information needs can only be met with less traditional sources.

 | July 21, 2018

Disposition 1.3: Responsibility to community

Learners who are disposed to demonstrate a sense of responsibility to their community when they are evaluating sources of information are conscientious about how they invoke authority in order to gain credibility with their audiences.

Example behaviors:

- Fulfilling one's responsibility to one's discourse community by using sources carefully.

- Recognizing that the sources one is permitted to use will depend on one's discourse community.

- Taking responsibility for critically evaluating and explaining sources' authority to one's audience when stating and standing by their claims.

Module 2: Strategic Searching

This module focuses on the process of planning, evaluating, and revising searches during strategic exploration. There are two knowledge outcomes and one disposition that make up this module.

Outcome 2.1: Plan, conduct, evaluate, and revise searches to achieve relevant results.

Performance Indicators:

2.1.1:   Select appropriate basic and advanced search options to satisfy different needs.

2.1.2:   Identify keyword searching as an appropriate basic search strategy when beginning research.

2.1.3:   Apply basic search limiters or filters to increase the relevance of results (e.g., checking a "peer-reviewed" or "scholarly journals" box).

2.1.4:   Given a topic, identify terms and concepts to use in a search for basic background information.

2.1.5:   Given a description of a research topic, identify keywords.

2.1.6:   Scan search results for synonyms to use for additional searches.

2.1.7:   Decide when the number of results makes it worthwhile to read through the individual results.

2.1.8:   Given a list of results, select titles relevant to the topic.

2.1.9:   Given a set of results that is too large, select keywords that will effectively narrow search results.

2.1.10:   Use advanced search syntax such as synonyms and truncation to increase the number of relevant results

2.1.11:   Apply nested logic structures, Boolean operators, and truncation to successfully construct an advanced search.

2.1.12:   Use sophisticated search limiters and modifiers to improve search results.

Outcome 2.2: Compare and contrast a range of search tools.

Performance Indicators:

2.2.1:   Identify differences between search tools such as those on the open web, in a database, and in a library catalog.

2.2.2:   Understand when it is appropriate to use a web search engine to find information.

2.2.3:   Compare the types of sources found in different search tools.

2.2.4:   Identify a range of possible sources, such as scholars, industries, and organizations, that would likely have created or collected useful information on a topic.

2.2.5:   Match descriptions of scope, content, and limitations to the search tools they describe.

Disposition 2.1: Productive persistence

Learners who are disposed to demonstrate productive persistence during their searches for information approach searching as iterative and not linear by employing alternative strategies and learning from mistakes.

Example behaviors:

• Adapting and evolving new strategies rather than clinging to familiar search techniques.

• Handling feelings of frustration that commonly surface during the search process.

• Recovering from a failed search in order to continue searching until the information need is satisfied.

• Taking constructive assignment feedback from instructors as an impetus to continue searching for better sources.

Module 3: Research & Scholarship

This module focuses on the knowledge-building process and how scholars build knowledge. There are two knowledge outcomes and three dispositions that make up this module.

Outcome 3.1: Understand the processes of scholarly communication and knowledge building.

Performance Indicators:

3.1.1:   Given a literature review, identify the established knowledge that is summarized or synthesized.

3.1.2:   Given a literature review, identify the gap that the authors have identified in the existing research.

3.1.4:   Recognize that scholars bring their own perspectives to the study of a research topic.

3.1.5:   Categorize common types of sources by whether the authors are expected to list their cited sources.

3.1.6:   Identify social consequences of scientific falsification.

3.1.7:   Recognize how interpretations can change based on new research and findings.

3.1.8:   Identify reasons why scholars track down influential works.

3.1.9:   Identify venues for scholarly communication, such as books, journals, conventions, blogs.

3.1.10:   Recognize that research methods change over time.

3.1.11:   Recognize the value of emerging communication technology for strengthening scholarly communication.

3.1.12:   Evaluate an emerging scholar's likelihood of being accepted into the scholarly conversation.

3.1.13:   Given a description of scholarly disagreement, select the interpretation that acknowledges the value of disagreement for moving knowledge forward.

3.1.14:   Given a set of research needs, match them to appropriate research methods.

Outcome 3.2: Understand stages of the research process.

Performance Indicators:

3.2.1:   Recognize various ways that high quality research questions can be generated.

3.2.2:   Identify reasons to begin reading on a subject before solidifying an argument or thesis.

3.2.3:   Distinguish between goal-oriented and exploratory searching during the research process.

3.2.4:   Identify the appropriate relationship between a research question and a thesis statement.

3.2.5:   Order the stages of the research process when writing a research paper.

3.2.6:   Explain why research inquiry can be appropriate for personal information needs in addition to academic needs.

3.2.7:   Given text with conflicting perspectives, formulate suitable research questions.

3.2.8:   Analyze multifaceted research questions to identify component parts for systematic investigation.

3.2.9:   Given a purpose statement from a research assignment, identify the research question that has an appropriate level of complexity for the information need.

3.2.10:   Analyze the consequences of disregarding previous research in the early stages of the information creation process.

3.2.11:   Match problems in specific stages of the research paper process with problems they are likely to cause in the research paper product.

3.2.12:   Classify descriptions of specific actions taken during the research process by the stage in the research process when they are most likely to happen.

Disposition 3.1: Productive persistence

Learners who are disposed to demonstrate productive persistence throughout the research process approach inquiry as iterative, adjusting their research question as they learn more.

Example behaviors:

- Applying appropriate methods/practices of inquiry regardless of their complexity or negative emotional associations (e.g., frustration).
- Committing to building a knowledge base through background research when exploring an unfamiliar topic.

Disposition 3.2: Mindful self-reflection

Learners who are disposed to demonstrate self-reflection in the context of research and scholarship consistently question their own assumptions as they are challenged by new knowledge.

Example behaviors:

- Spending time exploring a topic with openness and curiosity before committing to a thesis or claim.
- Using critiques from professors, librarians, and peers to improve the quality of their inquiry.

Disposition 3.3: Responsibility to community

Learners who are disposed to demonstrate a sense of responsibility to the scholarly community recognize and conform to academic norms of knowledge building.

Example behaviors:

- Identifying and pursuing appropriate ways to enter the scholarly conversation while still an undergraduate.
- Seeking out and following established models of scholarship and inquiry.

 | July 21, 2018

Module 4: Value of Information

This module focuses on about information ethics and the value of information. There are two knowledge outcomes and two dispositions that make up this module.

Outcome 4.1: Recognize the rights and responsibilities of information creation.

Performance Indicators:

4.1.1:   Identify reasons why plagiarism is prohibited.

4.1.2:   Determine whether or not a passage is plagiarized.

4.1.3:   Identify appropriate citation options when using material from a source that is cited within the source at hand.

4.1.4:   Identify the type of plagiarism when presented with a plagiarized passage.

4.1.5:   Recognize the benefits of copyright protections.

4.1.6:   Given a list, select the purposes of citation.

4.1.7:   Recognize the rights and interests of human subjects participating in research studies.

4.1.8:   Recognize that where a source is found has no bearing on whether or not the source should be cited.

Outcome 4.2: Recognize social, legal, and economic factors affecting access to information.

Performance Indicators:

4.2.1:   Recognize how reporting on the same event offers disparate levels of coverage when the sources are written to be disseminated in different venues.

4.2.2:   Identify the relationship between individuals' organizational affiliations and their access to information.

4.2.3:   Identify reasons that some people's views are not disseminated to the larger community.

4.2.5:   Identify the meaning and scope of the concept of intellectual property.

4.2.6:   Identify the circumstances in which one's personal information may be used by other individuals, groups, and organizations.

4.2.7:   Identify reasons that access to information may be restricted, including copyright, licensing, and other practices.

4.2.8:   Distinguish among the common reasons that information may be freely available, including open access, public domain, and other practices.

Disposition 4.1: Mindful self-reflection

Learners who are disposed to demonstrate self-reflection in the context of the information ecosystem recognize and challenge information privilege.

Example behaviors:

• Considering how to use existing intellectual property to spur creative work without violating the creators' rights.

• Participating in informal networks to reduce disparities caused by the commodification of information.

• Recognizing and suggesting ways to reduce the negative effects of the unequal distribution of information.

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Disposition 4.2: Responsibility to community

Learners who are disposed to demonstrate a sense of responsibility to the scholarly community recognize and conform to academic norms of knowledge building.

Example behaviors:

• Accessing scholarly sources through formal channels.

• Avoiding plagiarism in their own work and discouraging plagiarism by others.

• Recognizing the value of their own original contributions to the scholarly conversation.

THRESHOLD ACHIEVEMENT TEST
FOR
INFORMATION LITERACY

Evaluating Process & Authority
2019 Fanomnakan Graduating Seniors_TATIL
University of Guam
September 5, 2019

CARRICK ENTERPRISES
Assessment made simple

Table of Contents

Section 1: About the Test

The Threshold Achievement Test for Information Literacy is a tool for measuring student knowledge and dispositions regarding information literacy. The test is inspired by the Association of College and Research Libraries' Framework for Information Literacy for Higher Education and by expectations set by the nation's accrediting agencies. The Evaluating Process & Authority module focuses on the process of information creation and the constructed and contextual nature of source authority. It tests students' ability to recall and apply their knowledge of evaluating sources and it tests their metacognition about core information literacy dispositions that underlie their behaviors.

Information Literacy Knowledge

The knowledge items are based on information literacy outcomes and performance indicators created by the test developers and advisory board of librarians and other educators. Items assess an array of cognitive processes that college students develop as they transition from pre-college to college ready to research ready. The items are presented in a variety of structured response formats to assess students' information literacy knowledge, skills, and abilities ranging from understanding to critical thinking to problem solving.

Figure 1.1 Knowledge Outcomes for Evaluating Process & Authority

Outcome 1.1   Apply knowledge of source creation processes and context to evaluate the authority of a source.

Outcome 1.2   Apply knowledge of authority to analyze others' claims and to support one's own claims

Information Literacy Dispositions

Dispositions play an important role in learning transfer, indicating students' willingness to consistently apply the skills they have learned in one setting to novel problems in new settings. The ACRL Framework highlights dispositions, which constitute affective facets of information literacy, because they are essential to students' information literacy outcomes. Dispositions interact with a student's process of defining ill-structured information problems within a new environment so that the student can transfer this learning to new problems. Dispositions are latent traits that function at an unconscious level and determine whether or not a student can transfer learning and move beyond a superficial understanding of material.

Dispositions are at the heart of a student's temperament. While some dispositions can be seen as natural tendencies, they may also be cultivated over time through intentionally-designed instruction and through exposure to tacit expectations for student behavior.

To address dispositions in the test, we use scenario-based problem solving items. Students are presented with a scenario describing an ill-defined information literacy challenge related to the content of the module. Following the scenario, students are presented with strategies for addressing the challenge. Students evaluate the usefulness of each strategy.

Information Literacy Dispositions for Evaluating Process & Authority

Students who can evaluate sources based on the processes used to create them are more likely to critically examine the authority of information within a given context, rather than simply using a one-size-fits-all judgment of credibility. Since the credibility of a source is not absolute or stable, and varies, for example, by discourse community, students must be (1) mindful about the processes used to create the information, (2) comfortable with the fact that the same sources may be considered authoritative in one context but not in another, and (3) responsible to their academic community in looking beneath surface-level markers of authority.

The test assesses how students understand and value authority, how they define their role in evaluating sources, and how they perceive the relative value of different types of sources for common academic needs.

Figure 1.2 Dispositions for Evaluating Process & Authority

Disposition 1.1   Mindful self-reflection

Disposition 1.2   Toleration of ambiguity

Disposition 1.3   Responsibility to community

Section 2: About this Report

The report that follows is designed to help educators identify areas of strength and areas that need improvement in their students' ability to evaluate the process used to create information and the context-specific criteria that give sources their authority. The report will support evidence-based decision-making and inform actions for strengthening student outcomes.

How the Report is Organized

The report presents overall and detailed results for your students. The high-level summary of results on both the knowledge and disposition dimensions for students at your institution is provided in Section 3, along with cross-institutional comparisons. Your local results are compared to other institutions in order to give an indication of how your students performed relative to other students who may have similar exposure to information literacy instruction.

Sections 4 and 5 offer details about knowledge performance. Section 4 shows the overall mean score for all students and subgroup breakouts for the standard questions you selected and your custom questions. Section 4 also gives cross-institutional comparisons.

Section 5 provides more detail on the knowledge results by presenting data on each knowledge outcome, along with breakouts and cross-institutional comparisons. Section 5 also explores the performance indicators that make up each knowledge outcome by listing performance indicator rankings that identify your students' relative strengths and weaknesses.

Section 6 presents details about dispositional performance. Your disposition results are presented with level descriptions that align with your students' mean scores.

Section 7 offers suggestions for targeted readings that can assist you in following up on these results.

Knowledge Performance Levels

Three performance levels are used to describe student achievement on the knowledge section of the test. Students are assigned to one of the levels based on their mean score on the knowledge items. Levels are shown in Sections 4 and 5 and indicated by color.

Conditionally ready. Students who are conditionally ready define authorities as people who have gained expertise through relevant experiences. They are able to use familiar types of information but without consideration for how they were created. They are able to evaluate a source based on how easily they can incorporate it into their own knowledge base and research paper. Conditionally ready students accept information that they have used before and rely on sources that are easy to understand rather than sources created through a rigorous process of review and editing. The conditionally ready color in the charts is yellow.

College ready. Students who are college ready are able to select sources based on the idea that authority is more than simply having relevant experiences because it includes considerations like the author's field of study. They are able to define basic differences among sources when they are told about the process that was used to create them and they have an intuitive understanding of how sources fit into the information cycle. Based on their understanding of generic processes of information creation and

of the information cycle, they are able to make basic distinctions among the information sources they are evaluating in order to select the more authoritative and the more appropriate source for their information need. College ready students are prepared to follow clear and detailed assignment instructions about what types of information they are expected to use for their college papers or projects. The college ready color in the charts is green.

Research ready. Students who are research ready are able to determine if a source will strengthen their own authority by considering markers of the author's authority (e.g., credentials and prior publications) within the context of the student's own field and audience. They are able to judge how well a source is likely to satisfy their information need by identifying indicators of the process used to create that source (e.g., quoted sources, methods, citations). They know that standards for authority are socially constructed by people who share a set of scholarly or professional values and apply that knowledge to select information sources that are appropriate for the social context within which they will use the sources. They are confident enough in their own judgments about authority to selectively use sources that are not scholarly when the research literature is silent on the experience or topic they are studying. Research ready students are prepared to strategically employ sources as part of strengthening their own authority. The research ready color in the charts is blue.

Disposition Levels

Students who are weakly-disposed toward the dispositions in this module are unlikely to spontaneously demonstrate these traits without guided instruction and scaffolding to support their development. They may demonstrate strong dispositions in other areas not associated with information literacy, but these are not covered by this test. The weakly-disposed color in the charts is orange.

Students who are moderately-disposed toward the traits assessed by this test are more easily guided to apply them but may not consistently demonstrate these strengths when they are faced with new challenges. They may experience strain when there is a conflict between their information literacy dispositions and other strong dispositions. The moderately-disposed color in the charts is pink.

Students with strong dispositions toward the values and behaviors associated with information literacy are most likely to consistently react to new situations by drawing upon these underlying traits. The strongly-disposed color in the charts is blue.

Mean Scores and Standard Errors

Scoring on the knowledge portion is based on a partial credit model and on difficulty level. Students can achieve full, partial, or no credit on an item. Imagine a test item that has 4 possible answers, A, B, C, and D, with A and B being the correct responses. To achieve full credit, a student must select A and B and must not select C or D. A student who chooses A and B and C will receive less credit than someone who chooses just A and B.

The score a student achieves on an item is based on the difficulty of receiving a particular amount of credit for that item. Difficulties are calibrated based on a database of student scores from all participating institutions. Items have different levels of difficulty and therefore different maximum scores. Scores are presented on a 1,000-point scale, where a perfect score is 1,000.

A student's overall score is the mean of their item scores. The overall score for a group or institution is

the mean of the students' scores.

The standard error indicates the likely range of scores if the test were given again to the same students. For example, a mean score of 500 ±10 for freshmen indicates that the true score for freshmen falls between 490 and 510. To determine if mean scores of groups are meaningfully different, it is important to take the standard error into account. For example, if the mean score for sophomores is 505 ±10, then it is accurate to say that the freshmen and sophomores who were tested did not score differently. Sample size effects the standard error. An increase in sample size can result in a smaller standard error.

Note that a subgroup must consist of at least three students in order for a score to be generated. We do not recommend making results for subgroups public if they include fewer than 10 students because of concerns about identifiability and privacy.

Scoring for disposition items is based on a student's judgments regarding strategies. Students earn high scores on these items if they judge behaviors associated with the disposition to be useful and behaviors not associated with the disposition to be not useful. A student's score for a disposition is the sum of the points they score on each of the strategies. Scores with their standard errors are presented on a 100-point scale.

## Performance Bars, Histograms, and Pie Charts

Performance bars display where the mean score, shown in orange, for a group or subgroup falls within the three performance levels. The standard error associated with the mean is shown in black. Each performance level has a different background color: Conditionally ready is yellow, college ready is green, and research ready is blue.

Histograms are used to visually represent the relative distribution of scores in a group or subgroup. These graphs allow you to have an overall sense of how the scores fall around the mean.
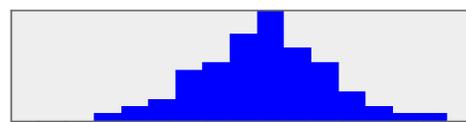
Pie charts in the knowledge sections show the number and percentage of students who scored in each of the three performance levels for a group or subgroup. Each performance level has a different background color: Conditionally ready is yellow, college ready is green, and research ready is blue.
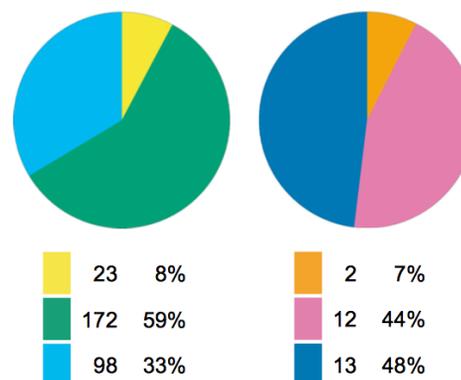
Pie charts in the disposition section show the number and percentage of students who scored in each of the three disposition levels for a group or subgroup. Each disposition level has a different background color: Weakly-disposed is orange, moderately-disposed is pink, and strongly-disposed is blue.

Associated Files

In addition to this report, the following files are included in your zip file:

1. Test Item document. A PDF document with a description of each test item.
2. Raw data file. Contains all of the scores presented in this report.

3. Student data file. Contains scores for each of your students.

4. Student data codebook. Describes the demographic options that you configured for your test.

5. Student Report zip file. Contains a directory of PDF documents with an analysis of each student's performance.

Section 3: Summary of Results

This section provides an overview of how your students performed on the Threshold Achievement Test for Information Literacy: Evaluating Process & Authority. For detailed knowledge results organized by subgroups, including standard and custom questions, refer to Section 4 and Section 5. For detailed disposition results, refer to Section 6. For additional analysis, you may wish to collaborate with your institution's research office. Consultants are also available through Carrick Enterprises.

Knowledge Results

Students who attain knowledge of information literacy concepts and practices are well-positioned to effectively address their information needs and contribute meaningfully to the information ecosystem. The knowledge dimension measured by this module specifically addresses students' ability to apply their knowledge of source context and creation processes to judging source authority, analyzing claims, and supporting their own claims.

Figure 3.1 shows the average score for your students and the averages for institutional groups. The average score for your students, 527, falls within the performance level of college ready. The blue histograms show how scores were distributed.

Figure 3.1 Knowledge Results

Your Institution		527 ±7
Your Peer Institutions		551 ±19
Your Institution Types		481 ±4
All Institutions		487 ±2
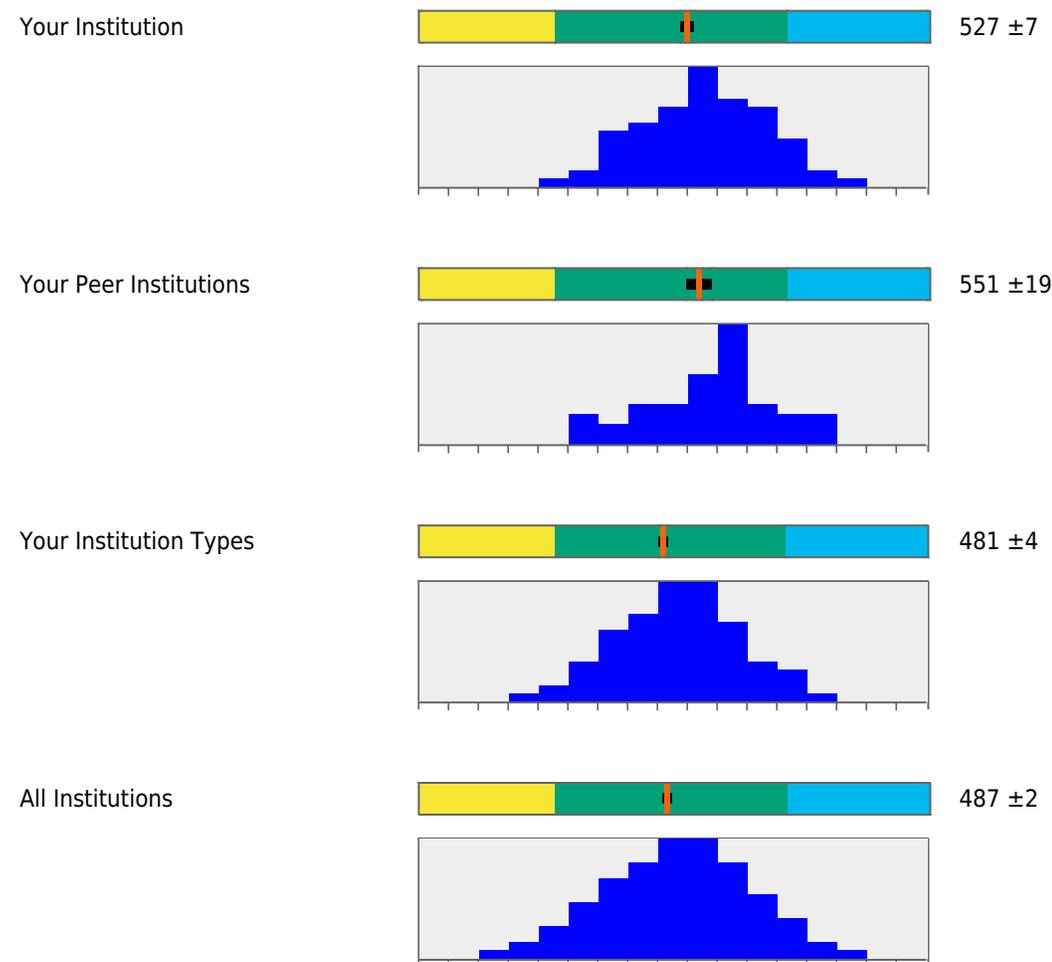
Disposition Results

Dispositions are the qualities students cultivate that underlie and shape their actions. Strong dispositions in the information literacy areas covered by the Threshold Achievement Test for Information Literacy are associated with lifelong learning and critical thinking. Students' dispositions also contribute to the climate of the institution. They can be strengthened through high-impact pedagogical practices and social learning.
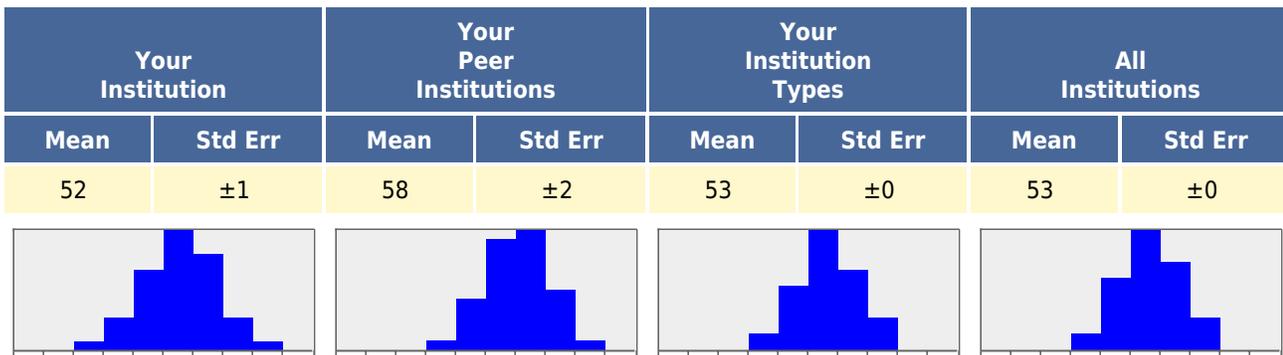
Your students earned the following mean scores:

- 52 for Mindful self-reflection
- 57 for Toleration of ambiguity
- 64 for Responsibility to community

Figure 3.2 shows your institution's mean scores plus the means for institutional groups. Mean scores reflect a weak, moderate, or strong inclination toward the corresponding disposition. For information about disposition levels as well as details about scoring and reading the figures, please see Section 2 of this report.
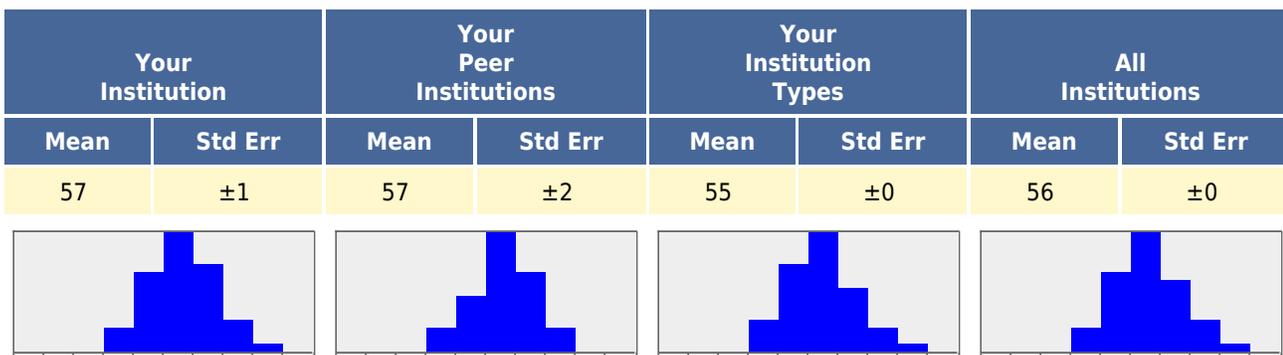
Figure 3.2 Disposition Results

Disposition 1.1 Mindful self-reflection

Your Institution		Your Peer Institutions		Your Institution Types		All Institutions	
Mean	Std Err	Mean	Std Err	Mean	Std Err	Mean	Std Err
52	±1	58	±2	53	±0	53	±0

Disposition levels: 0 - 42 is weak; 43 - 65 is moderate; 66 - 100 is strong.

Disposition 1.2 Toleration of ambiguity

| Your Institution		Your Peer Institutions		Your Institution Types		All Institutions	
Mean	Std Err	Mean	Std Err	Mean	Std Err	Mean	Std Err
57	±1	57	±2	55	±0	56	±0

Disposition levels: 0 - 44 is weak; 45 - 69 is moderate; 70 - 100 is strong.

Disposition 1.3 Responsibility to community

Your Institution		Your Peer Institutions		Your Institution Types		All Institutions	
Mean	Std Err	Mean	Std Err	Mean	Std Err	Mean	Std Err
64	±1	67	±2	65	±0	65	±0
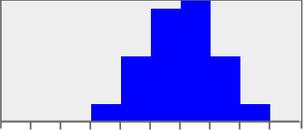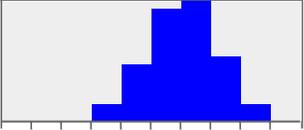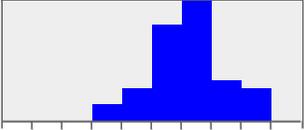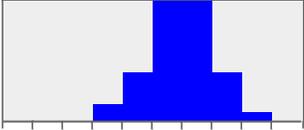
Disposition levels: 0 - 52 is weak; 53 - 79 is moderate; 80 - 100 is strong.

Section 4: Overall Knowledge Results

Your students answered 24 knowledge items in the Evaluating Process & Authority module. The knowledge items are based on the outcomes listed in Figure 1.1. Figure 4.1 shows the mean score and standard error for your students.

The number and percentage of students in the three performance levels is displayed in the corresponding pie chart, with the legend underneath. Also shown are your selected peer institutions, your selected institution types, and all institutions. See Section 2 for descriptions of performance levels. Students are assigned to performance levels based on their mean scores as follows:

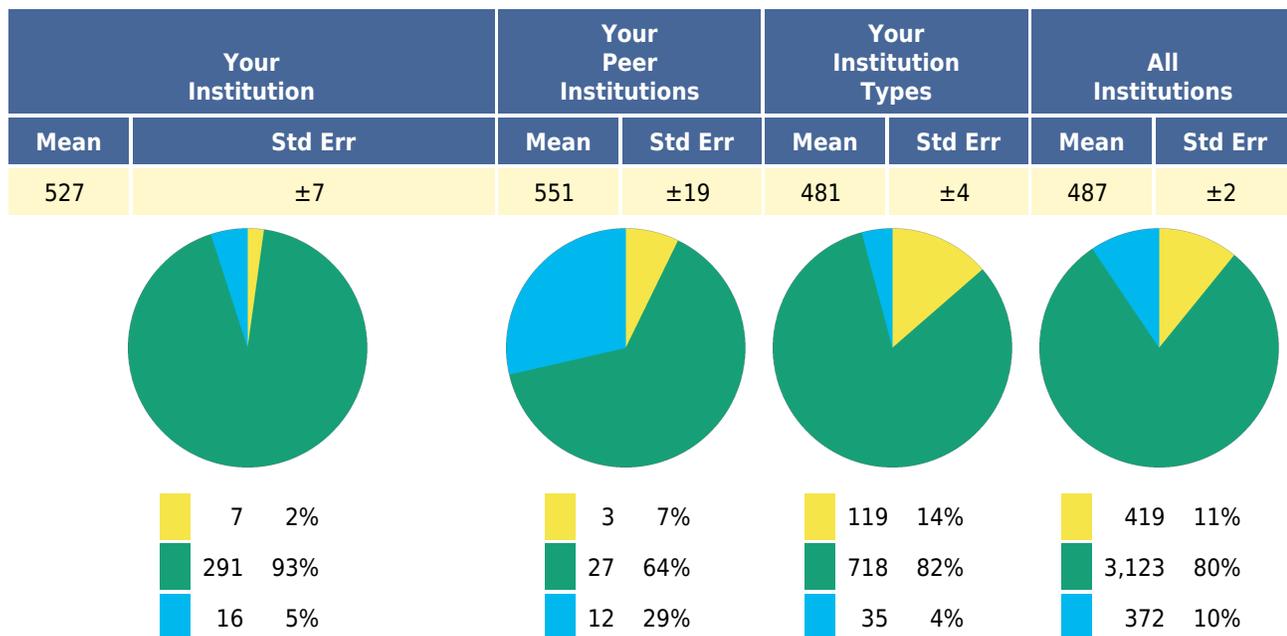Score of 1-269: conditionally ready (in yellow)
Score of 270-721: college ready (in green)
Over 721: research ready (in blue)

Figure 4.2 presents mean scores and standard errors for breakouts based on the standard questions you selected and your custom questions.

'n/a' is used when there is no score for the group. A subgroup must consist of at least three students in order for a score to be generated.

Figure 4.1 Knowledge Results

Your Institution		Your Peer Institutions		Your Institution Types		All Institutions	
Mean	Std Err	Mean	Std Err	Mean	Std Err	Mean	Std Err
527	±7	551	±19	481	±4	487	±2

	Your Institution		Your Peer Institutions		Your Institution Types		All Institutions
🟨	7	2%	3	7%	119	14%	419	11%
🟩	291	93%	27	64%	718	82%	3,123	80%
🟦	16	5%	12	29%	35	4%	372	10%

Section 5: Individual Knowledge Outcome Results

This section provides details for the individual knowledge outcomes in this module. Under each outcome, the first figure presents the mean score and standard error for your students. The number and percentage of students in the three performance levels is displayed in the corresponding pie chart, with the legend underneath. Also shown are your selected peer institutions, your selected institution types, and all institutions. See Section 2 for descriptions of performance levels. Students are assigned to performance levels based on their mean scores as follows:

Outcome 1.1
Score of 1-219: conditionally ready (in yellow)
Score of 220-636: college ready (in green)
Over 636: research ready (in blue)

Outcome 1.2
Score of 1-348: conditionally ready (in yellow)
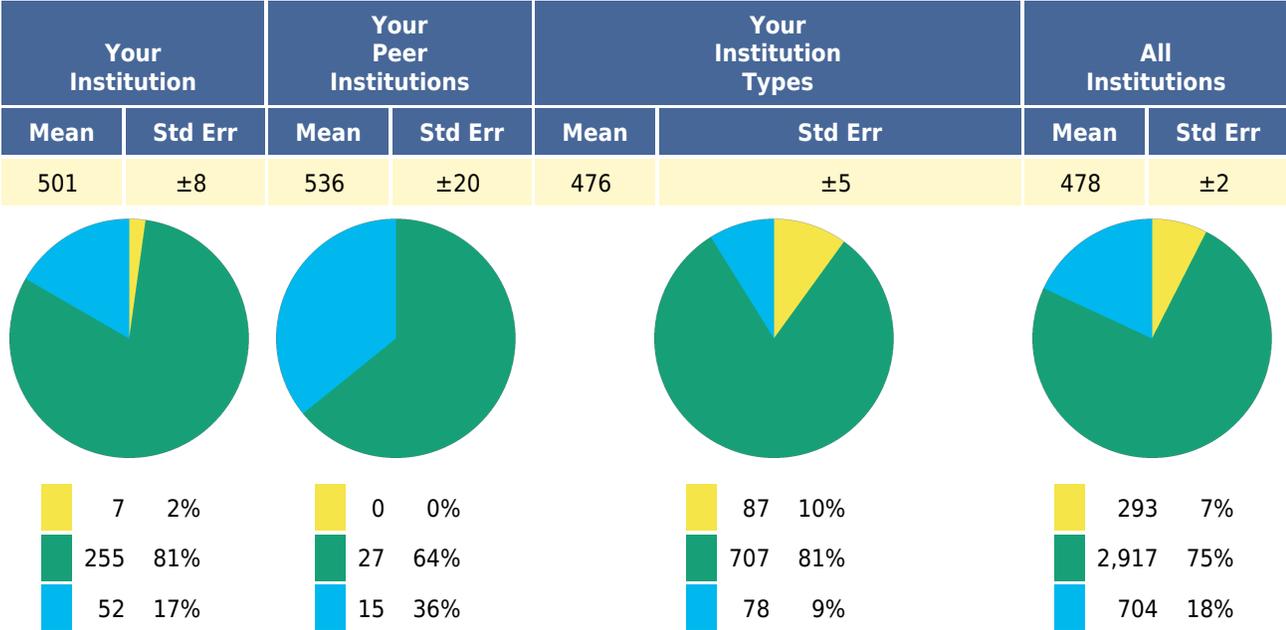Score of 349-828: college ready (in green)
Over 828: research ready (in blue)

The second figure shows mean scores and standard errors for breakouts based on the standard questions you selected and your custom questions.

The third figure is a listing of the performance indicators for each outcome ranked by your students' overall performance from the strongest to the weakest. The ranking is a relative ordering and does not indicate how well your students performed on a particular performance indicator. Through the use of color bars, these figures also compare your students' performance with your peer institutions on each performance indicator. A blue bar indicates that your students' mean score is higher than or equal to the mean score of your peer institutions. A red bar indicates that your students' mean score is lower than the mean score of your peer institutions.

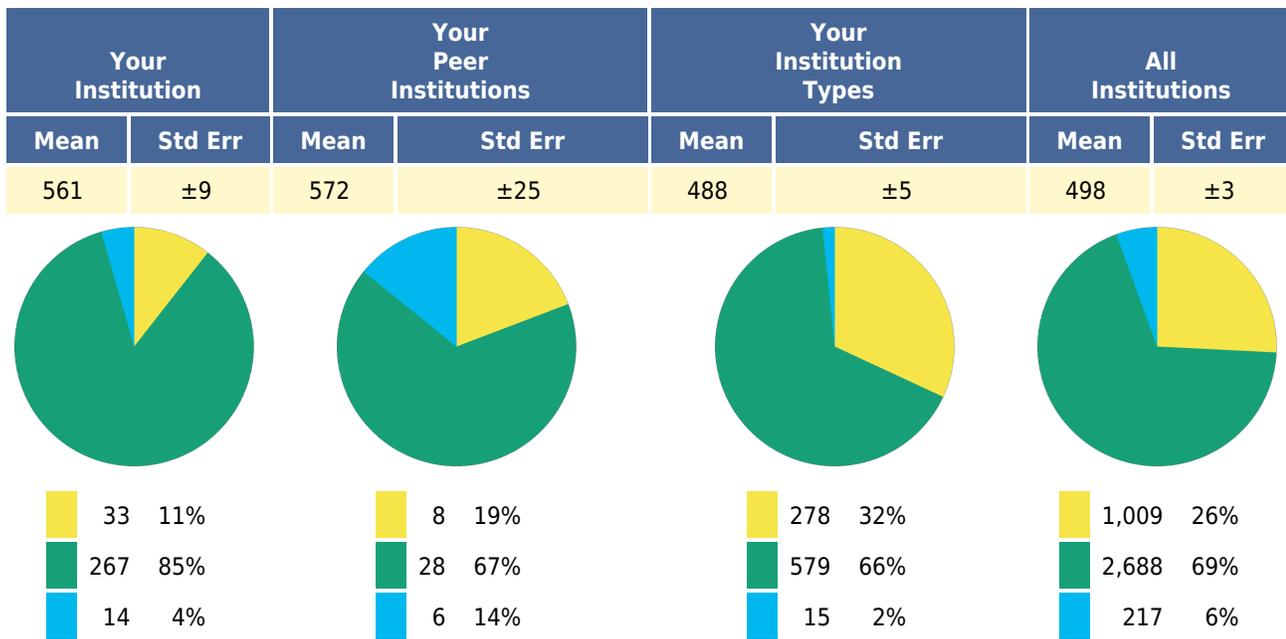## Outcome 1.1: Apply knowledge of source creation processes and context to evaluate the authority of a source.

Figure 5.1 Overall Results

Your Institution		Your Peer Institutions		Your Institution Types		All Institutions	
Mean	Std Err	Mean	Std Err	Mean	Std Err	Mean	Std Err
501	±8	536	±20	476	±5	478	±2

7	2%	0	0%	87	10%	293	7%
255	81%	27	64%	707	81%	2,917	75%
52	17%	15	36%	78	9%	704	18%

Figure 5.2 Performance Indicators Ranked

Performance indicators are ranked by your students' overall performance from strongest to weakest. The ranking is a relative ordering and does not indicate how well your students performed on a particular performance indicator. A blue bar indicates that your students' mean score is higher than or equal to the mean score of your peer institutions. A red bar indicates that your students' mean score is lower than the mean score of your peer institutions.

Recognize that information is created to serve varying interests of information consumers. (1.1.12)

Identify relevant questions to ask about sources' origins and context when considering them as support for a claim. (1.1.9)

Match a description of a creation process to the source type it describes. (1.1.1)

Identify types of scholarly products and communication modes that fall outside of the typical publication processes but are still worthy of use (e.g., conference presentations, contributed papers, discussions on association websites). (1.1.8)

Match the elements of a source record to what they reveal about the process used to create the source (e.g., publisher name, authors' names, date, subject terms, source type). (1.1.3)

Identify the audience for whom a source was created. (1.1.7)
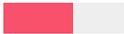
Match an information need to the most authoritative source types (e.g., news agency, government website, scholarly article) for fulfilling that need. (1.1.6)

Identify factors that would compromise the authority of the peer review process. (1.1.10)

Match a description of a review process, such as editorial and peer review, to the source type it describes. (1.1.4)

Arrange a sample set of sources into their appropriate positions on the information cycle. (1.1.5)

Match descriptions of popular, polemic, and primary documents to scenarios where it would be appropriate to use them. (1.1.11)

Match the source type with the amount of time it usually takes to publish it. (1.1.2)

## Outcome 1.2: Apply knowledge of authority to analyze others' claims and to support one's own claims

Figure 5.3 Overall Results

Your Institution		Your Peer Institutions		Your Institution Types		All Institutions	
Mean	Std Err	Mean	Std Err	Mean	Std Err	Mean	Std Err
561	±9	572	±25	488	±5	498	±3

33	11%	8	19%	278	32%	1,009	26%
267	85%	28	67%	579	66%	2,688	69%
14	4%	6	14%	15	2%	217	6%

Figure 5.4 Performance Indicators Ranked

Performance indicators are ranked by your students' overall performance from strongest to weakest. The ranking is a relative ordering and does not indicate how well your students performed on a particular performance indicator. A blue bar indicates that your students' mean score is higher than or equal to the mean score of your peer institutions. A red bar indicates that your students' mean score is lower than the mean score of your peer institutions.

Identify relevant questions to ask about the suitability of a source when considering it as support for a claim. (1.2.6)

Recognize the pitfalls of using the superficial indicator "peer review" when evaluating sources for authority. (1.2.8)

Evaluate the effectiveness of an author's use of different source types (e.g., news, research articles, blogs) to support arguments. (1.2.10)

Determine the reason why a quote is used in a given passage (e.g., show significance, give authoritative support, provide context, emphasize, summarize). (1.2.11)

Recognize that expertise is contextual and positional (e.g., credentials alone are not a per se indicator of author's expertise). (1.2.5)

Recognize that polished, visually appealing presentation of web content does not equate to authoritative, high-quality content. (1.2.4)

Distinguish the key works cited in a passage from the peripheral works. (1.2.12)

Recognize when a quote from a well-known author or recognized expert is being used by an author to gain authority. (1.2.9)
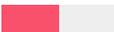
Know the importance of determining the author when evaluating the authority of a source. (1.2.3)

Identify information directly relevant to an argument. (1.2.7)

Identify the sponsor, organization, or institution that provides support for a site. (1.2.1)
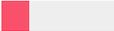
Identify relevant elements of an author's expertise. (1.2.2)

Section 6: Individual Disposition Results

This test measures the strength of students' information literacy dispositions. See Section 1, About the Test, for more information about dispositions and Section 2 for details about disposition performance levels. In the pie charts below, each disposition level has a different background color: Weakly-disposed is orange, moderately-disposed is pink, and strongly-disposed is blue.

Although dispositions related to personality are generally thought to be relatively stable over time, the situational dispositions assessed in this module should be expected to strengthen as students have sustained exposure to an academic community that cultivates these approaches to problem solving.

Each results section below is introduced with an explanation of your students' mean score on the items associated with that disposition, followed by students' overall and subgroup results.

Unlike the overall knowledge results detailed in Section 4, there is no overall dispositional score for this module because each disposition is distinct and some dispositions may work in opposition to one another. For example, feeling responsible to conform to the norms and values of the academic community may sometimes be at odds with mindfully reflecting on one's own assumptions and actions. Higher-scored dispositions should represent an area of relative strength for your students while lower-scored dispositions should represent an area of relative weakness. Areas of strength can be built upon by intensifying the challenges presented to students. Areas of weakness can be directly targeted for improvement through assignments that strengthen metacognition about associated information literacy behaviors.
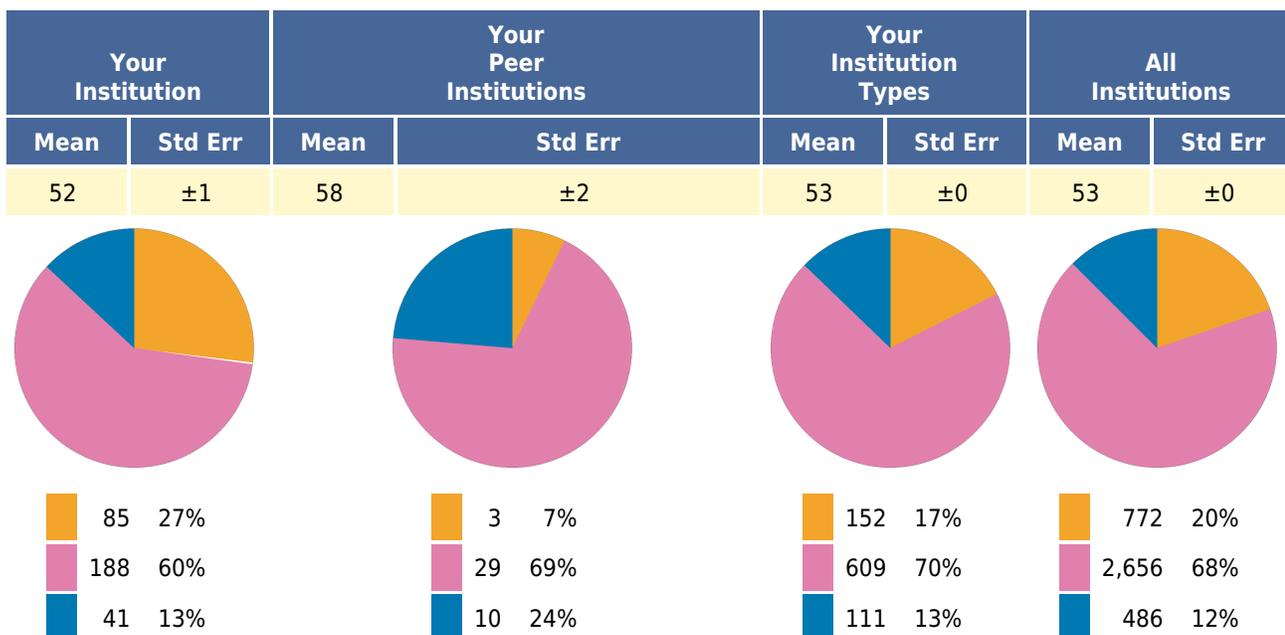
16

Disposition 1.1: Mindful self-reflection

Learners who are disposed to demonstrate self-reflection when they are evaluating sources of information consistently question their assumptions about what makes a source authoritative.

Example behaviors:
- Looking for features that challenge one's assumptions about the trustworthiness of one's preferred sources.
- Questioning one's own assumptions about the reliability of traditional forms of scholarly authority.
- Recognizing when there are good reasons to change one's position on an issue.

Your students' mean score for the set of problem-solving items about mindful self-reflection fell in the moderately-disposed range. Scores in this range suggest that students are able to recognize the difference between their own information preferences and the sources considered authoritative by the academic community so they are likely to follow their professors' and librarians' guidelines about the types of sources to select. They are less likely to consider outsider or non-traditional sources without direct guidance. They are unlikely to see the relevance of criteria they associate with academic information needs when they are evaluating information for other purposes even if those criteria would help them identify more authoritative and reliable sources.

Figure 6.1 Overall Results

Your Institution		Your Peer Institutions		Your Institution Types		All Institutions	
Mean	**Std Err**	**Mean**	**Std Err**	**Mean**	**Std Err**	**Mean**	**Std Err**
52	±1	58	±2	53	±0	53	±0

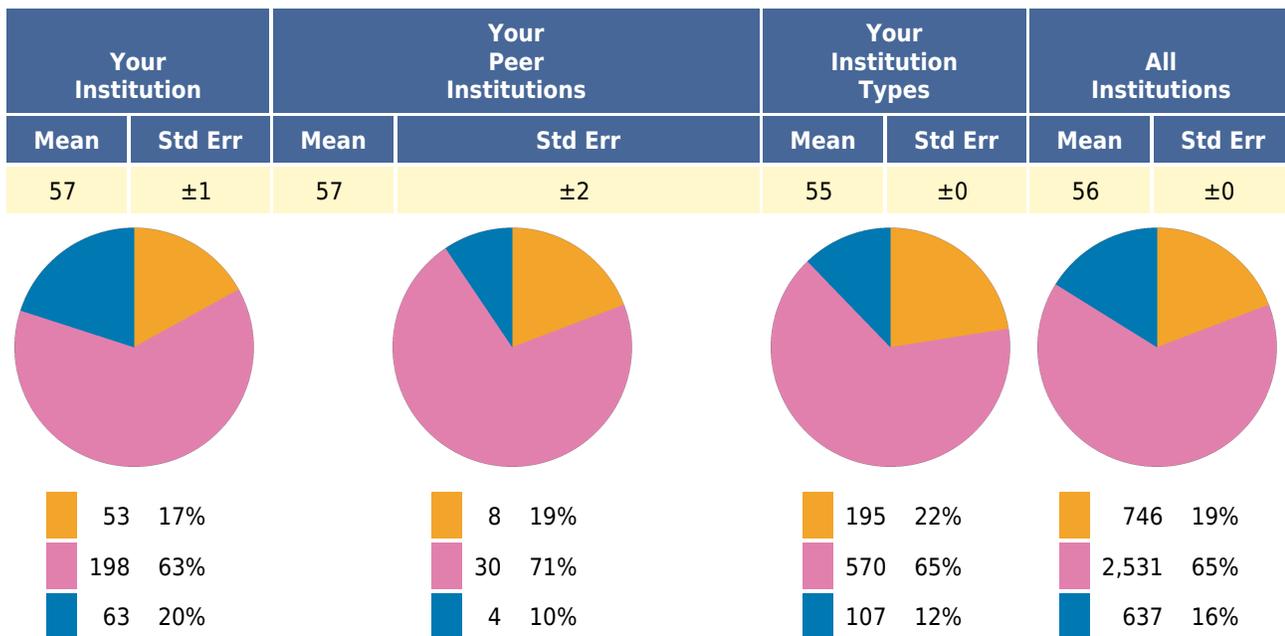|			
85 27%	3 7%	152 17%	772 20%
188 60%	29 69%	609 70%	2,656 68%
41 13%	10 24%	111 13%	486 12%

Disposition 1.2: Toleration of ambiguity

Learners who are disposed to demonstrate toleration for ambiguity when they are evaluating sources of information treat authority as subjective because it is based on the context of the information need.

> Example behaviors:
> - Deciding what to do when authorities disagree.
> - Flexibly using traditional and non-traditional information sources at appropriate points in the research process.
> - Treating authority as a flexible concept when information needs can only be met with less traditional sources.

Your students' mean score for the set of problem-solving items about tolerating ambiguity and thinking flexibly about evaluating sources fell in the moderately-disposed range. Scores in this range suggest that students are likely to approach source evaluation with some flexibility because they have learned from their professors the value of using challenging academic sources alongside the familiar sources they prefer. However, because these students perceive authority primarily through the lens of relevance and utility, once they meet the minimum standards set by their professors, they are unlikely to address the nuances of authority among the sources within the paper itself.

Figure 6.2 Overall Results

Your Institution		Your Peer Institutions		Your Institution Types		All Institutions	
Mean	Std Err	Mean	Std Err	Mean	Std Err	Mean	Std Err
57	±1	57	±2	55	±0	56	±0

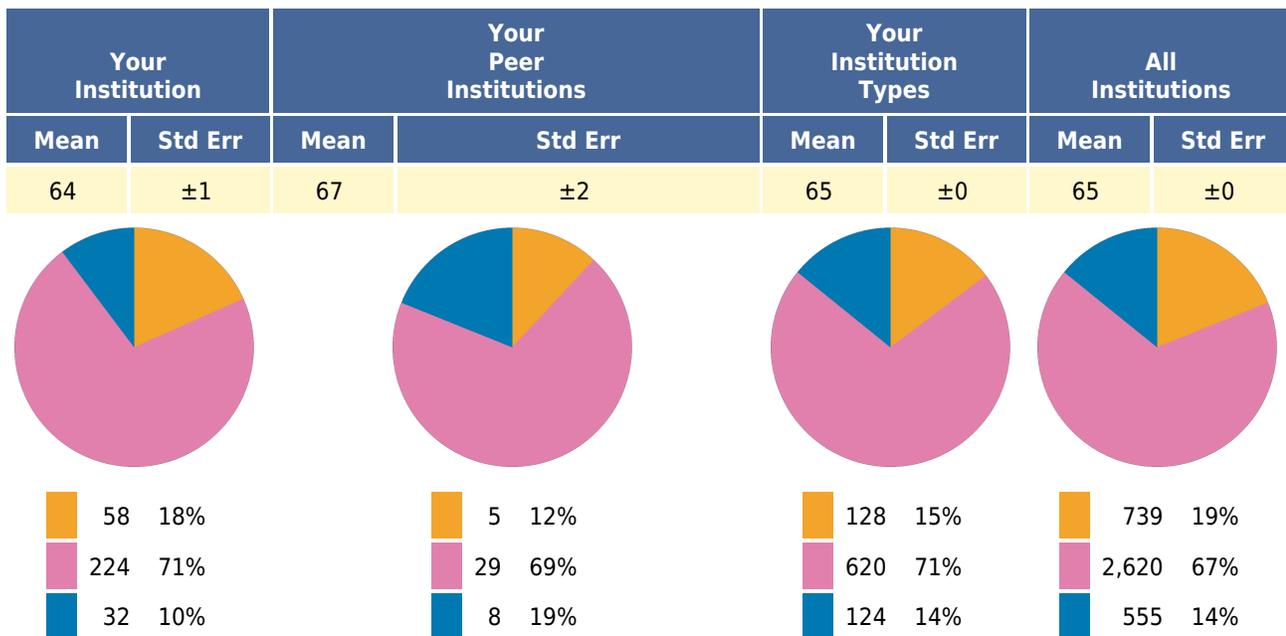| Your Institution		Your Peer Institutions		Your Institution Types		All Institutions	
53	17%	8	19%	195	22%	746	19%
198	63%	30	71%	570	65%	2,531	65%
63	20%	4	10%	107	12%	637	16%

Disposition 1.3: Responsibility to community

Learners who are disposed to demonstrate a sense of responsibility to their community when they are evaluating sources of information are conscientious about how they invoke authority in order to gain credibility with their audiences.

Example behaviors:
- Fulfilling one's responsibility to one's discourse community by using sources carefully.
- Recognizing that the sources one is permitted to use will depend on one's discourse community.
- Taking responsibility for critically evaluating and explaining sources' authority to one's audience when stating and standing by their claims.

Your students' mean score for the set of problem-solving items about internalizing the norms and values of the academic community fell in the moderately-disposed range. Scores in this range suggest that students are likely to have an appreciation for how the academic community values, creates, and uses sources and are thus likely to incorporate some of these sources into their own work. Students who are moderately-disposed to feel responsible to the academic community see the strengths of this approach for evaluating information during their research but have not yet internalized these values as part of their responsibility as information creators.

Figure 6.3 Overall Results

Your Institution		Your Peer Institutions		Your Institution Types		All Institutions	
Mean	**Std Err**	**Mean**	**Std Err**	**Mean**	**Std Err**	**Mean**	**Std Err**
64	±1	67	±2	65	±0	65	±0

58	18%	5	12%	128	15%	739	19%
224	71%	29	69%	620	71%	2,620	67%
32	10%	8	19%	124	14%	555	14%

19

Section 7: Targeted Reading Recommendations

Following up on assessment results is the most important step in the assessment cycle. Below are some articles and reports that may help you to formulate a plan for next steps based on the results of your Threshold Achievement assessment.

Corrall, S. (2017). Crossing the threshold: Reflective practice in information literacy development. *Journal of Information Literacy, 11*(1), 23-53. http://dx.doi.org/10.11645/11.1.2241

Graf, A. J., & Harris, B. R. (2016). Reflective assessment: Opportunities and challenges. *Reference Services Review, 44*(1), 38-47. https://doi.org/10.1108/RSR-06-2015-0027

Hinchliffe, L. J. (2015). Professional development for assessment: Lessons from reflective practice. *Journal of Academic Librarianship, 41*(6), 850-852. doi:10.1016/j.acalib.2015.10.004

Markless, S., & Streatfield, D. (2017). How can you tell if it's working? Recent developments in impact evaluation and their implications for information literacy practice. *Journal of Information Literacy, 11*(1), 106-119. http://dx.doi.org/10.11645/11.1.2201

Tewell, E. (2016). Putting critical information literacy into context: How and why librarians adopt critical practices in their teaching. *In the Library with the Lead Pipe*. http://www.inthelibrarywiththeleadpipe.org/2016/10/

You assessed students as part of an effort to measure information literacy at the institution-level. Your TATIL results may provide evidence for your accreditation self-study report. The following resources may help you to draft an ongoing assessment plan as you think about how to contribute to a culture of assessment on your campus:

Baker, G. R., Jankowski, N., Provezis, S. & Kinzie, J. (2012). *Using assessment results: Promising practices of institutions that do it well*. Urbana, IL: University of Illinois and Indiana University, National Institute for Learning Outcomes Assessment (NILOA).

Blank, J. M., McGaughey, K. J., Keeling, E. L., Thorp, K. L., Shannon, C. C., & Scaramozzino, J. M. (2016). A novel assessment tool for quantitative evaluation of science literature search performance: Application to first-year and senior undergraduate biology majors. *College & Research Libraries, 77*(6), 682-702. https://doi.org/10.5860/crl.77.6.16551

Gross, M., Latham, D., & Armstrong, B. (2012). Improving below-proficient information literacy skills: Designing an evidence-based educational intervention. *College Teaching, 60*(3), 104-111. doi:10.1080/87567555.2011.645257

Squibb, S. D., & Mikkelsen, S. (2016). Assessing the value of course-embedded information literacy on student learning and achievement. *College & Research Libraries, 77*(2), 164–183. https://doi.org/10/5860/crl.77.2.164

Suskie, L. A. (2018). *Assessing student learning: A common sense guide*. 3d ed. San Francisco, CA: Jossey-Bass.

Wakimoto, D. K., Alexander, S., Bussman, J. D., Winkelman, P. & Jiansheng, G. (2016). Campus-wide information literacy assessment: An opportunity for library leadership through understanding faculty perspectives. *Library Leadership & Management, 31*(1), 1-19.

Whitlock, B. & Ebrahimi, N. (2016). Beyond the library: Using multiple, mixed measures simultaneously in a college-wide assessment of information literacy. *College & Research Libraries, 77*, 236-262. doi:10.5860/crl.77.2.236

If you have not already completed a curriculum map at University of Guam, curriculum analysis may be an important next step for identifying courses or milestones where information literacy instruction could significantly affect student outcomes. Your TATIL results could provide you with the foundational findings you need to get faculty interested in helping you map their curriculum. The following resources explain the process and provide case studies:

> Buchanan, H., Webb, K. K., Houk, A. H., & Tingelstad, C. (2015). Curriculum mapping in academic libraries. *New Review of Academic Librarianship, 21*(1), 94-111. doi:10.1080/13614533.2014.1001413
>
> Franzen, S., & Bannon, C. M. (2016). Merging information literacy and evidence-based practice in an undergraduate health sciences curriculum map. *Communications in Information Literacy, 10*(2), 245-263.

If your results suggest a need to develop new curriculum or create a college-wide dialogue about students' information literacy among faculty, the following resources suggest possible models:

> Bowles-Terry, M., & Donovan, C. (2016). Serving notice on the one-shot: Changing roles for instruction librarians. *International Information & Library Review, 48*(2), 137-142.
>
> Cowan, S. & Eva, N. (2016). Changing our aim: Infiltrating faculty with information literacy. *Communications in Information Literacy, 10*(2), 163-177.
>
> Hoffmann, D., & Wallace, A. (2013). Intentional informationists: Re-envisioning information literacy and re-designing instructional programs around faculty librarians' strengths as campus connectors, information professionals, and course designers. *Journal of Academic Librarianship, 39,* 546-551. doi:10.1016/j.acalib.2013.06.004
>
> Johnson-Grau, G., Archambault, S. G., Acosta, E. S., & McLean, L. (2016). Patience, persistence, and process: Embedding a campus-wide information literacy program across the curriculum. *Journal of Academic Librarianship, 42*(6), 750-756. https://doi.org/10.1016/j.acalib.2016.10.013
>
> Jumonville, A. (2014). The role of faculty autonomy in a course-integrated information literacy program. *Reference Services Review, 42,* 536-551. http://dx.doi.org/10.1108/RSR-07-2014-0020
>
> Junisbai, B., Lowe, M. S., & Tagge, N. (2016). A pragmatic and flexible approach to information literacy: Findings from a three-year study of faculty-librarian collaboration. *Journal of Academic Librarianship, 42*(5), 604-611. https://doi.org/10.1016/j.acalib.2016.07.001
>
> Smith, P. A. (2016). Integrate and assess: Information literacy as quality enhancement of undergraduate curriculum. *Communications in Information Literacy, 10*(2), 214-244.

If you are interested in the disposition portion of the test, you may want to learn more about the connection between dispositions and learning. Consider how understanding of dispositions can be used to promote training transfer, as described in the following sources:

> Bereiter, C. (1995). A dispositional view of transfer. In A. McKeough, J. Lupart, & A. Marini (Eds.), *Teaching for transfer: Fostering generalization in learning* (pp. 21â€"34). Mahwah, NJ: Lawrence Erlbaum.
>
> Bonnet, J. L., Cordell, S. A., Cordell, J., Duque, G. J., MacKintosh, P. J., & Peters, A. J. (2013). The apprentice researcher: Using undergraduate researchers' personal essays to shape instruction and services. *portal: Libraries and the Academy, 13,* 37-59. https://doi.org/10.1353/pla.2013.0007

Dempsey, P. R., & Jagman, H. (2016). â€I felt like such a freshmanâ€: First-year students crossing the library threshold. *portal: Libraries & the Academy, 16*(1), 89-107. doi:10.1353/pla.2016.0011

Duckworth, A. L., & Yeager, D. S. (2015). Measurement matters: Assessing personal qualities other than cognitive ability for educational purposes. *Educational Researcher, 44,* 237-251. doi:10.3102/0013189X15584327

Farrington, C. A., Roderick, M., Allensworth, E., Nagaoka, J., Keyes, T. S., Johnson, D. W., & Beechum, N. O. (2012).Â *Teaching Adolescents to Become Learners: The Role of Noncognitive Factors in Shaping School Performance: A Critical Literature Review*. Chicago, IL: University of Chicago Consortium on Chicago School Research.

Folk, A. L. (2016). Academic reference and instruction librarians and Dweckâ€™s theories of intelligence. *College & Research Libraries, 77*(3), 302-313. https://doi.org/10.5860/crl.77.3.302

Lenker, M. (2016). Motivated reasoning, political information, and information literacy education. *portal: Libraries & the Academy, 16*(3), 511-528. http://dx.doi.org/10.1353/pla.2016.0030

Perkins, D. N., & Salomon, G. (2012). Knowledge to go: A motivational and dispositional view of transfer. *Educational Psychologist, 47*(3), 248â€"258. https://doi.org/10.1080/00461520.2012.693354

Ross, M., Perkins, H., & Bodey, K. (2016). Academic motivation and information literacy self-efficacy: The importance of a simple desire to know. *Library & Information Science Research, 38*(1), 2-9. https://doi.org/10.1016/j.lisr.2016.01.002

Appendix A. Student Profile

The figure below reports the available demographic data; not all elements of demographic data were reported for all students.

Figure A.1 Student Profile

Subgroups	Your Institution		Your Peer Institutions		Your Institution Types		All Institutions	
	N	%	N	%	N	%	N	%
TOTAL	314	100	42	100	872	100	3,914	100

Appendix B. Institutions

Your Peer Institutions

Auburn University
Brigham Young University

Members of Your Institution Types

California State University at San Marcos
California State University, Fresno
Chapman University
Emporia State University
Purdue Fort Wayne

All Institutions

Auburn University
Brigham Young University
Bryant & Stratton College
Bryn Athyn College
California State University at San Marcos
California State University, Fresno
Chapman University
Emporia State University
Florida Institute of Technology
Goldfinch University
James Madison University
KEENE STATE COLLEGE
Oklahoma State University
Palomar College
Purdue Fort Wayne
Temple University
Texas A&M University
The Harker School
University of Guam
University of Kansas
University of Lethbridge
University of North Carolina at Greensboro
Valencia College

24

UNIVERSITY OF GUAM
UNIBETSEDÅT GUÅHAN

2019 State of Information Literacy at the University of Guam

Asst. Professor Roland San Nicolas
Reference & Instruction Librarian

Undergraduates

- 25 Degree Programs
- 3,407 Students
- 58% Female 42% Male
- 47% Pacific Islanders
- 45% Asian

UOG (2019a)

RFK Library

- $48/Student per Semester
- 62 databases
- 120,000 Books in Print
- 200,000 eBooks online
- 6,000 Newspapers online
- 1,000 Online Reference Books
- 1 Info Lit Classroom
- 30 computers 1 Promethean
- 6 Teaching Librarians

WASC Senior College and University Commission

➡ **Ensure the Development of the 5 Core Competencies**

1. Written Communication
2. Oral Communication
3. Quantitative Reasoning
4. Information Literacy
5. Critical Thinking

WASC (2017)

UOG Expected Institutional Student Learning Outcomes (ILOs)

1. Mastery of critical thinking and problem solving
2. Mastery of quantitative analysis
3. Effective oral and written communication
4. Understanding and appreciation of culturally diverse people, ideas and values in a democratic context
5. Responsible use of knowledge, natural resources, and technology
6. An appreciation of the arts and sciences
7. An interest in personal development and lifelong learning

(UOG, 2019b)

ILO 5. Responsible use of knowledge, natural resources, and technology

◗**Core statement:** *Evaluate informed and responsible action to address ethical, social, and environmental challenges in global systems and evaluates the local and broader consequences of individual and collective interventions.*

(UOG, 2019b)

Information Literacy

◗**Set of integrated abilities**

◗encompassing the reflective discovery of information

◗understanding how information is produced and valued

◗the use of information in creating new knowledge

◗participating ethically in communities of learning

ACRL (2019)

ACRL Framework

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

ACRL (2019)

Information Literacy at RFK

- **Fall of 2015**
  - Bibliographic Instruction
    - Access and Retrieval from Databases and Print Collection
- **Fall 2017**
  - SILC- Scaffolding Information Literacy (Tier 1, Tier 2, Tier 3)
    - FY101- Library Tour, Access and Retrieval to Print Collection, NewsBank, Credo Reference, and OneSearch
    - CT101 – Evaluating Websites – CRAAP Test
    - EN111- Developing Search Strategies and Advanced Access and Retrieval in OneSearch
- **Fall 2018**
  - ACRL Framework adopted

RFK Undergrad Library Sessions

- BA180
- LW101
- AR101
- EN110
- GE201
- HS216
- SO221

- AR322
- BI320
- BI321
- SW345
- HS405
- HS451
- CH491

Imbedded IL

- Tier 1 GE
  - EN111 2 days
  - CT101
    - CRAAP
- FY101

UOG Tier II GEs with Information Literacy as a Core Competency

- STEM
  - BI201
  - CS200
- Human Sciences
  - AN203
  - AL185
  - SO221
- Uniquely UOG
  - EN213

- Humanities
  - AR101
  - MU101
  - MU121
  - TH101
- Human Systems and Organization
  - CO106
  - GE201

UOG Library Sessions

Library Sessions

AY	# Library Sessions
AY2015-2016	142
AY2016-2017	142
AY2017-2018	145
AY2018-2019	140
AY2019-2020	72
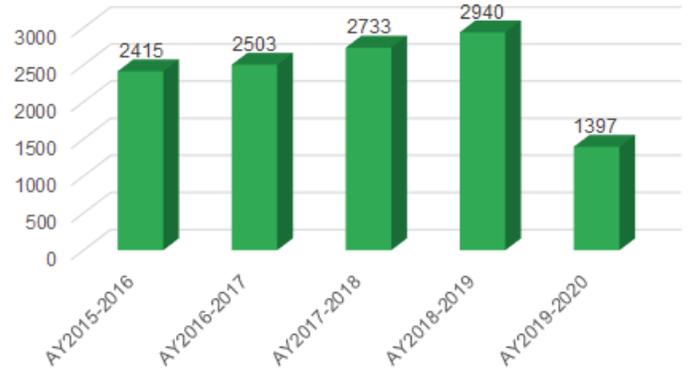
641 Library Sessions over 5 AYs

Students in Library Sessions

AY	# Students
AY2015-2016	2415
AY2016-2017	2503
AY2017-2018	2733
AY2018-2019	2940
AY2019-2020	1397

11,988 Students over 5 AYs

Library Sessions AY2015-2019

- DEAL = 50%
- EMSS = 23%
- CLASS = 6%
- SOE = 5%

- 641 Library Sessions

Library Sessions by Class/College 2015-2019

- EN111 46%
- FY101/ID180 23%
- CLASS 6%
- SOE 5%
- EN111 (Online) 4%
- CNAS 3%
- Other 3%
- SBPA 3%
- CT101 3%
- SNHS 3%
- EN110 1%
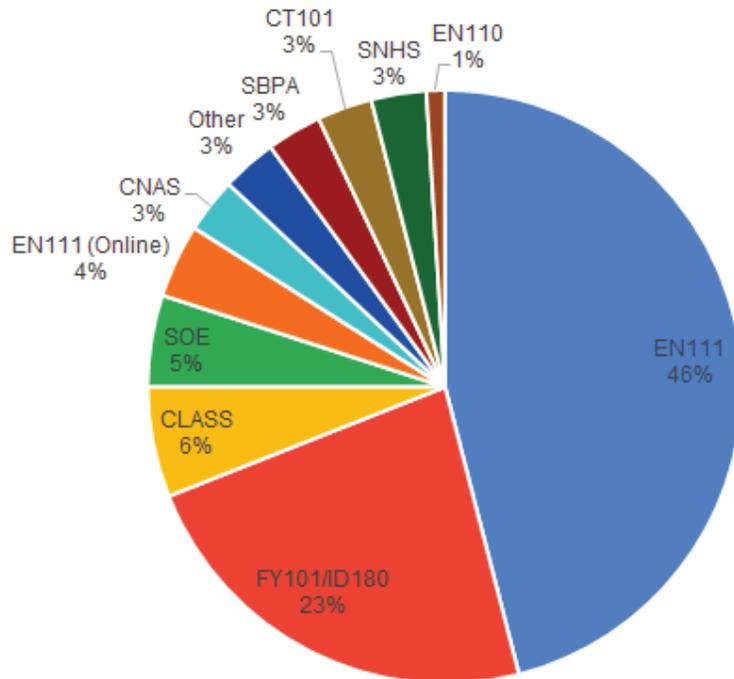
of Students AY 2015-2019

- 11,988 Students

- 73% of Students Served in FY101/ID180 or EN111

Students in Library Sessions by Class/College

- EN111 42%
- FY101/ID180 26%
- CLASS 7%
- Other 5%
- CT101 4%
- EN111 (Online) 3%
- SBPA 3%
- SOE 3%
- SNHS 3%
- CNAS 2%
- EN110 2%
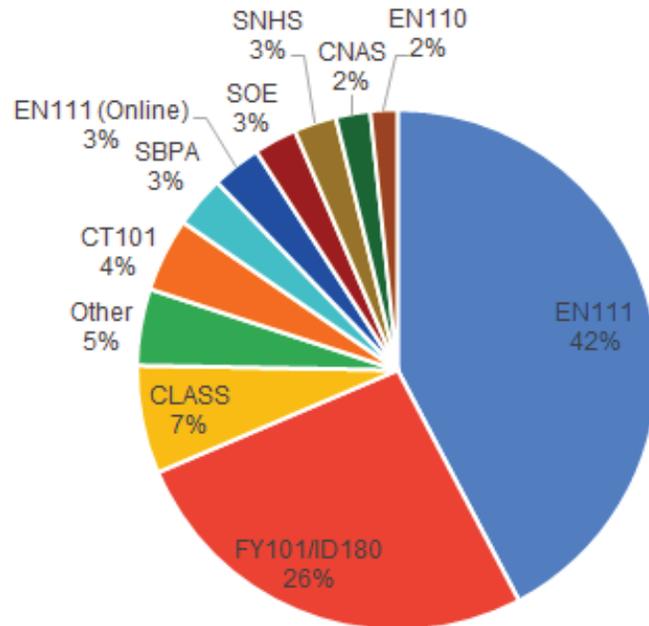
Learning Components

1. Why Use Libraries
2. Information Literacy
3. Library Services
4. Search Strategies

Why Use Libraries?

RFK Library Supports the 9 Academic Units at the University of Guam

34 Undergraduate Majors

15 Graduate Degree Programs

1. Gain access to quality resources, archives, and subscriptions in various formats.

2. Wikipedia can be edited by anyone at any time.

3. More information on the Deep Web than what is available to search engines.

4. Ability to cite Authoritative Sources that are Peer Reviewed.

Access & Retrieval

- **One**Search
- Gov Docs or PubMed
- Google Scholar
  - Keyword Search

- Retrieval
  - Citation Formats
  - Format Types (PDF, eBook, HTML, Print Resource

Information Has Value

➤ PUBLICATIONS:

➤ Scholarly/Academic/Peer Reviewed

➤ Peer Review Process

➤ Government Documents

➤ Trade/Professional

➤ Popular

How is Information Published?

➤ Serials/Periodicals

➤ In series or periodically

➤ Journal vs Magazine

➤ Journal aimed at experts and researchers

➤ Magazine aimed at general public

➤ Scholarly/Academic

➤ Professional/Trade

➤ Popular

Scholarly/Academic

- Written for experts by experts (researchers).
- These experts are employed by colleges, universities, or other institutions of education or research.
- No advertisements.
- The most prestigious scholarly or academic journals have articles undergo peer-review process
- Highest Level of Authority

Scholarly/Academic

Article Submission

Journal

HEALTH EDUCATION JOURNAL
Volume 64 Number 3
September 2005

UOG Databases

DB

Professional/Trade

- Written by people working in the field,
- may be written by staff writers with expertise.
- May include advertisements that are profession- or trade-specific.
- Visual material is often included
- Typically discuss practical applications
- Uses language and jargon familiar to the profession.
- The do not often present original research, ideas, or theoretical discussions.

Popular

- Written by journalists or staff writers
- Occasionally, experts may write for popular information outlets, but they do so in a style and on a level that caters to the general public.
- Cover news and current events in a field
- Report on news of general interest
- Typically full of advertisements, and are focused on making a profit

Search Strategies

- Extract Keywords from Research Question
  - Synonyms
- Filters
  - Date
  - Scholarly
  - Publication Type
  - Subject Headers
  - Item Type (PDF, eBook, HTML, Print Resource)

Search Functions

- Boolean Operators
- Truncation
- Quotations

Boolean Search Logic

Application

- Pedagogy OR Instruction OR Teaching

- Guam AND Education

- Achievement NOT Aptitude
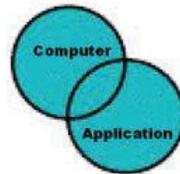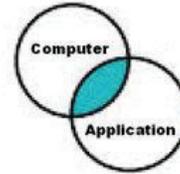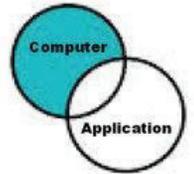
Truncation

- Using Symbols i.e. *, ?, #
- Bio* → Biology, Biologist, Biochemist, Biochemistry, Biodegradable, etc.

- Ne?t → Next, Nest, Neat
  - *"?" Stripped from query when at the end*

- Colo#r → Color & Colour but not Plural versions

Quotations

Social Media

- Query is Social AND Media no matter how far the two words are from each other in the item

• **"Social Media"**

- Query is ONLY Social Media with the two words together in that order

Ethical Use of Information

➡Appropriate Access

➡Proper Citation

➡Fair Use

What is **Plagiarism**?

- UOG Definition:

    The term "plagiarism" includes, but is not limited, to, the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials. (UOG, 2016, p.35)

- Deliberate vs Reckless

Paraphrase

➡To express the meaning of someone else's words in your own words

- ➡Shows you have understanding
- ➡Allows you to use your own terms along with key terms from source material
- ➡Allows you to summarize several similar works
- ➡Must still provide in text citations

Direct quotes

- Used when intellectual property is
  - Famous
  - Difficult to paraphrase without changing the intent of the message

- Can be used effectively to strengthen your arguments
- Must not be overdone

APA Citation Publication Manual

- Online OWL Purdue

- In Print
  - Main Collection
  - Reference Collection
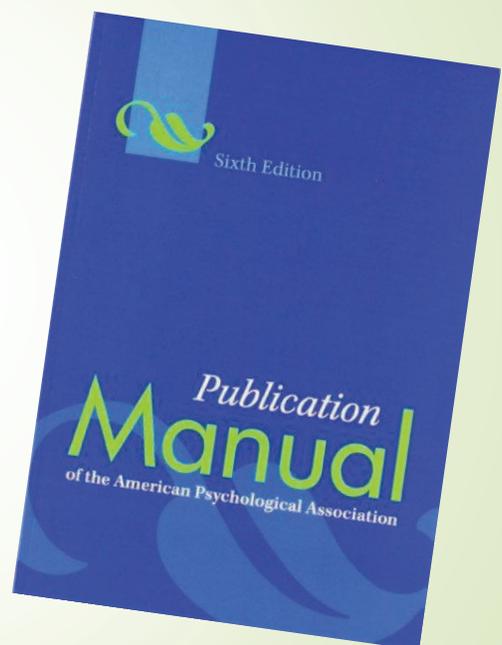
Online Resources

- UNC Online Writing Center
  - https://writingcenter.unc.edu/

- Owl Purdue

TATIL 2019

- Threshold Achievement Test in Information Literacy
- **4 modules**
  - Module 1: Evaluating Process & Authority
  - Module 2: Strategic Searching
  - Module 3: Research & Scholarship
  - Module 4: The Value of Information

2019 Fañomnåkan Graduating Seniors

- 315 Bachelor Degrees
- 63% Female/37% Male
- 47% Pacific Islander
- 45% Asian

- 25 Undergraduate Programs
- SBPA
  - 105 undergraduate degrees

(UOG, 2019b & 2019c)

Threshold Achievement Test in Information Literacy (**TATIL**)

- Administered by the Office of Institutional Effectiveness to assess this core competency at the institutional level

TATIL

- Measures Student Knowledge about IL

- Inspired by the ACRL Framework

TATIL (Knowledge)

- Assesses IL Knowledge, Skills, and Abilities

  - Understanding, CT, and Problem Solving

- Ranks in Tiers

  - Pre-College

  - College Ready

  - Research Ready

TATIL (Knowledge)

Outcome 1.1

- Apply knowledge of source creation processes and context to evaluate the authority of a source

Outcome 1.2

- Apply knowledge of authority to analyze others' claims and to support one's own claim
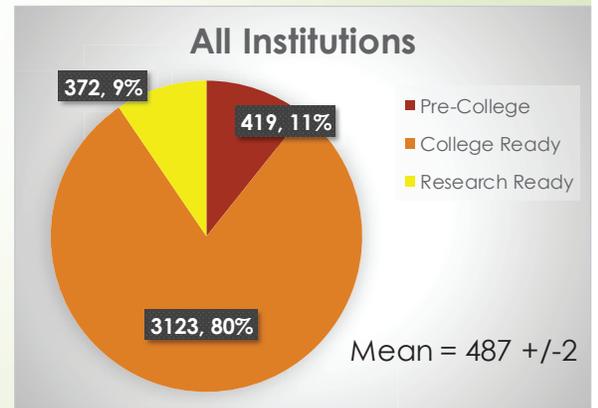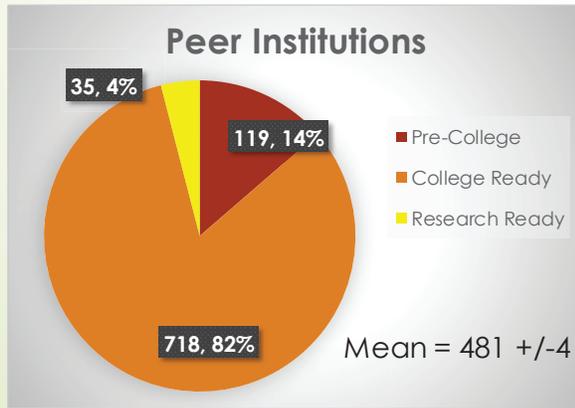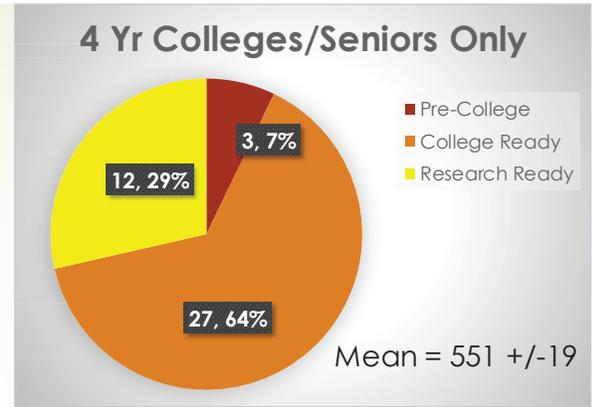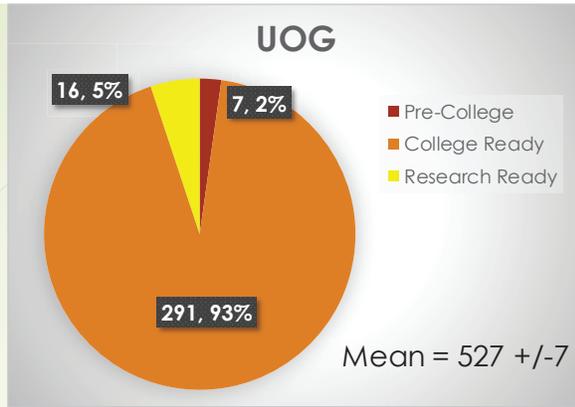

Overall Knowledge

Scores

1-269
Pre-College

270-721
College Ready

721>
Research Ready

UOG

- Pre-College
- College Ready
- Research Ready

16, 5%
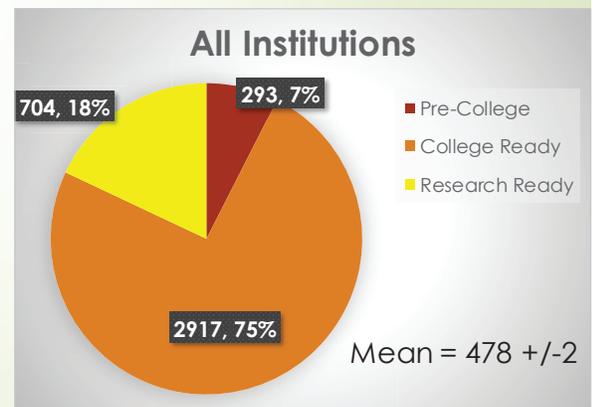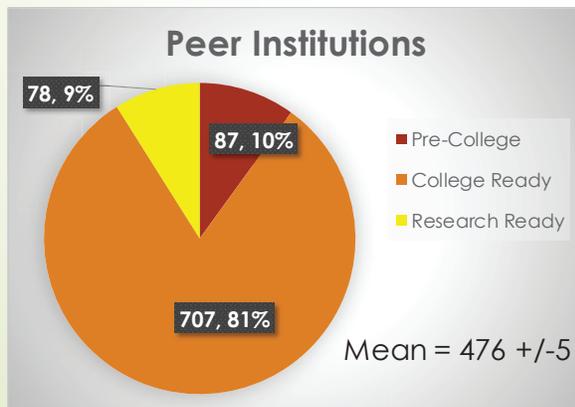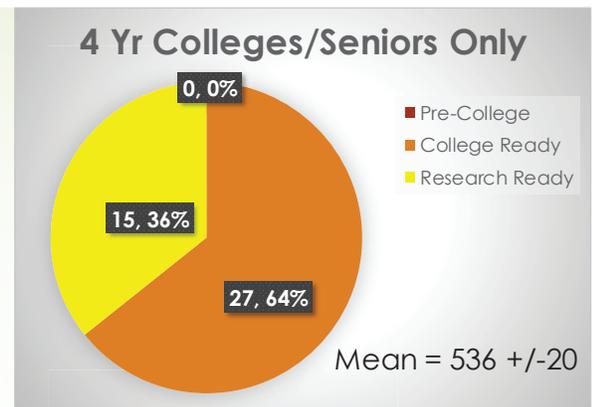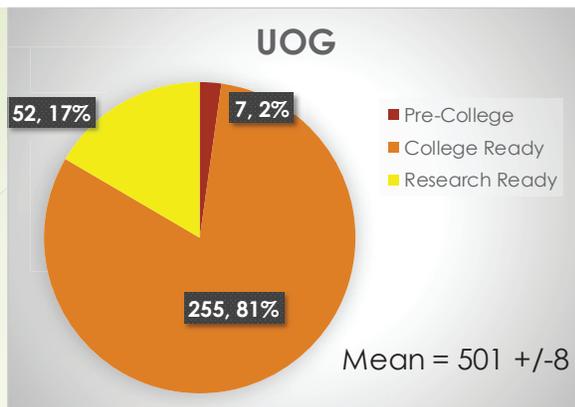
7, 2%

291, 93%
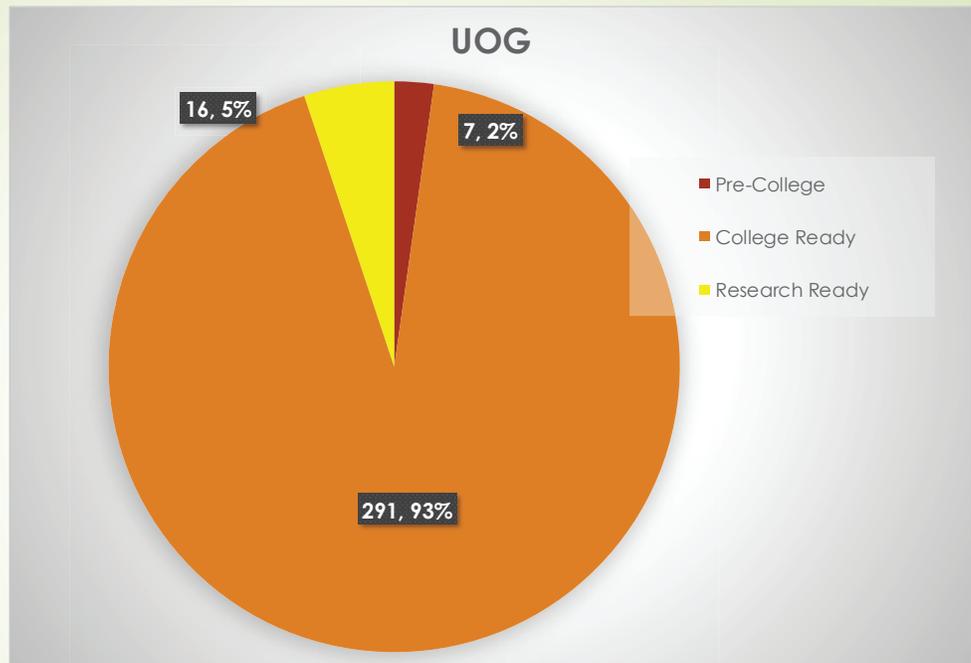
Mean = 527 +/-7

1.1 Source Creation

Scores

1-219
Pre-College

220-638
College Ready

636>
Research Ready
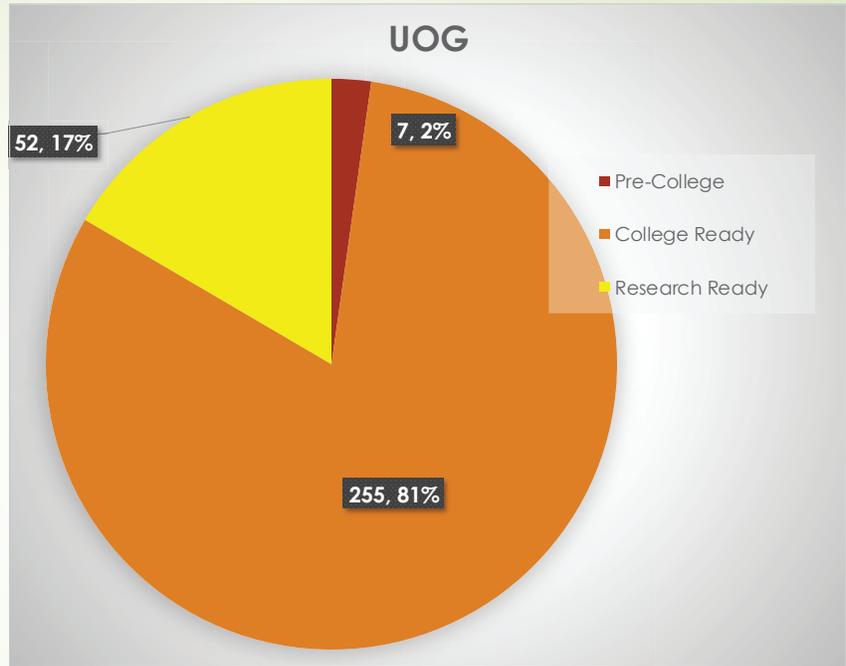
Mean = 501 +/-8

1.2 Knowledge of Authority

Scores

1-349
Pre-College

349-828
College Ready

828>
Research Ready
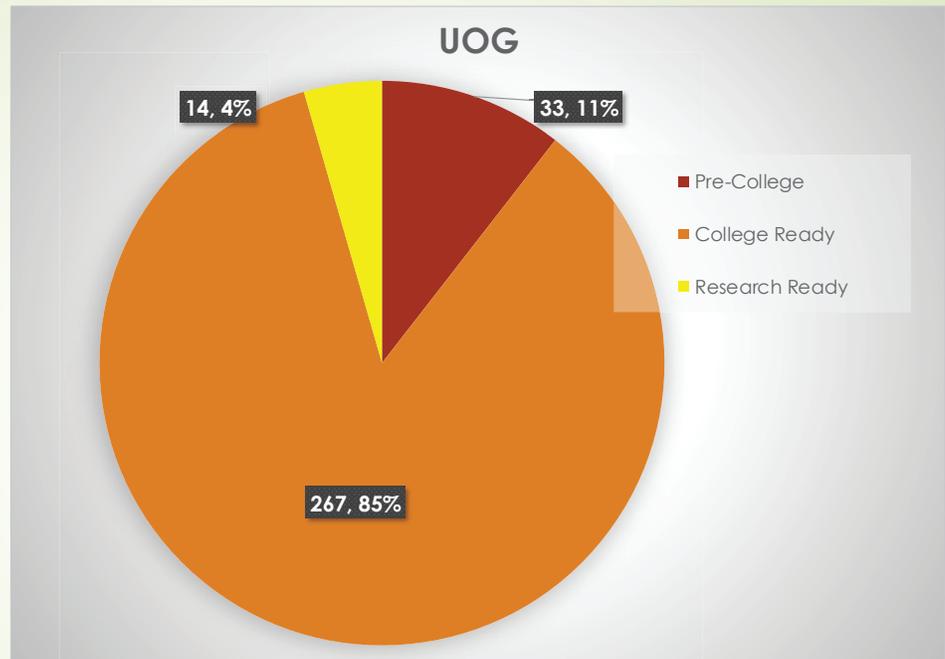
Mean = 561 +/-9

Overall Knowledge

Scores

1-269
Pre-College

270-721
College Ready

721>
Research Ready

UOG

- Pre-College: 7, 2%
- College Ready: 291, 93%
- Research Ready: 16, 5%

Mean = 527 +/-7

4 Yr Colleges/Seniors Only

- Pre-College: 3, 7%
- College Ready: 27, 64%
- Research Ready: 12, 29%

Mean = 551 +/-19

Peer Institutions

- Pre-College: 119, 14%
- College Ready: 718, 82%
- Research Ready: 35, 4%

Mean = 481 +/-4

All Institutions

- Pre-College: 419, 11%
- College Ready: 3123, 80%
- Research Ready: 372, 9%

Mean = 487 +/-2

1.1 Source Creation

Scores

1-219
Pre-College

220-638
College Ready

636>
Research Ready

UOG

- Pre-College: 7, 2%
- College Ready: 255, 81%
- Research Ready: 52, 17%

Mean = 501 +/-8

4 Yr Colleges/Seniors Only

- Pre-College: 0, 0%
- College Ready: 27, 64%
- Research Ready: 15, 36%

Mean = 536 +/-20

Peer Institutions

- Pre-College: 87, 10%
- College Ready: 707, 81%
- Research Ready: 78, 9%

Mean = 476 +/-5

All Institutions

- Pre-College: 293, 7%
- College Ready: 2917, 75%
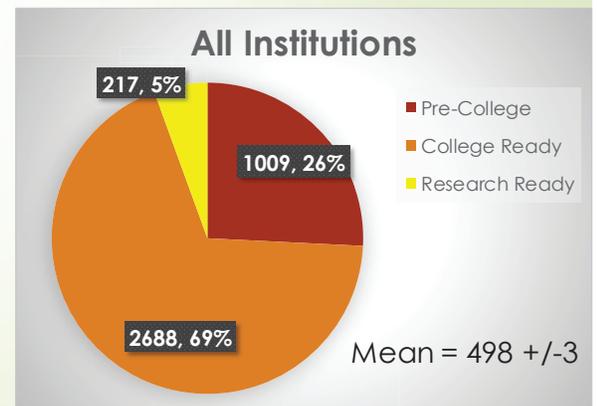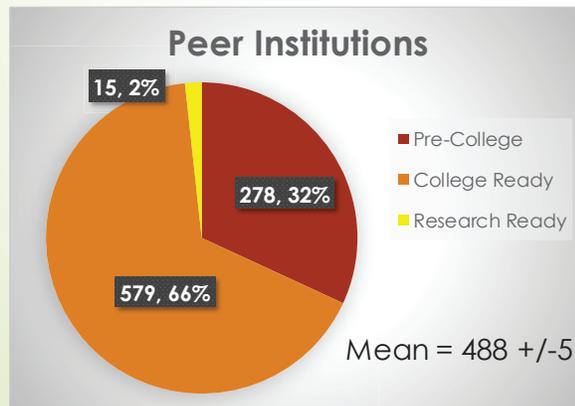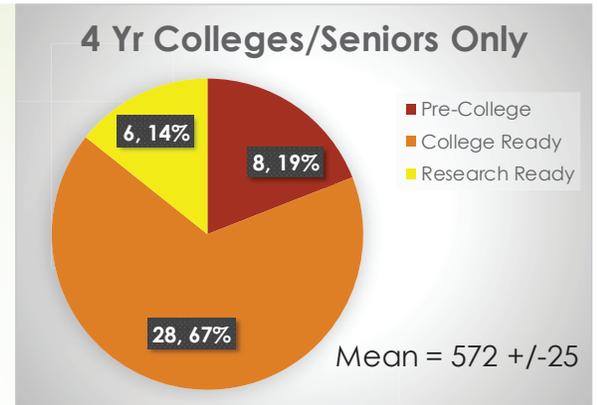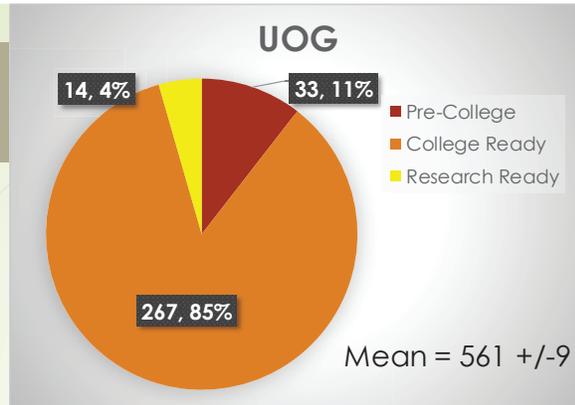- Research Ready: 704, 18%

Mean = 478 +/-2

1.2 Knowledge of Authority

Scores

1-349
Pre-College

349-828
College Ready

828>
Research Ready

UOG

14, 4%
33, 11%
267, 85%

- Pre-College
- College Ready
- Research Ready

Mean = 561 +/-9

4 Yr Colleges/Seniors Only

6, 14%
8, 19%
28, 67%

- Pre-College
- College Ready
- Research Ready

Mean = 572 +/-25

Peer Institutions

15, 2%
278, 32%
579, 66%

- Pre-College
- College Ready
- Research Ready

Mean = 488 +/-5

All Institutions

217, 5%
1009, 26%
2688, 69%

- Pre-College
- College Ready
- Research Ready

Mean = 498 +/-3

Conclusions

- There is much room for improvement
- Recommendations
  - Increase Library Outreach
  - More Points of Access for Information Literacy
    - Capstones
    - Tier 2 Classes that report on Information Literacy
    - Research and Writing Classes
      - Scientific Writing & Scientific Arguments
    - All CT101 Classes
  - Development of another Info Lit Classroom with 35 PCs

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