CSU Maritime Academy – Institution-Wide Assessment Council (IWAC)

AY 2017-18

Annual Learning Results Institution Wide SLO (F): Information Fluency

Report on IWSLO F: Information Fluency

"Students will define a specific need for information; then locate, evaluate, and apply the needed information efficiently and ethically."

OBJECTIVES

- Measure the extent to which Cal Maritime students "define a specific need for information; then locate, evaluate, and apply the needed information efficiently and ethically."
- Give recommendations for improving assessment efforts.
- Give recommendations (where applicable) for improving program effectiveness.

METHODOLOGY

The Information Fluency IWSLO was assessed using the same rubric as in the 2013 cycle with the addition of one new dimension (see Appendix B). The rubric uses a four point scale from 1 (Initial) to 4 (Exemplary). The two dimensions assessed in the 2013 cycle were Dimension 1: Location and Evaluation of Sources and Dimension 2: Citation/Attribution. The new dimension added in this assessment cycle was Dimension 3: Topic Selection.

During the Spring 2017 semester, 219 artifacts were collected from all majors. Artifacts were collected from the following courses:

- BUS 301: International Business II - Country Research Analysis and Global Marketing (39 marketing plans),
- DL 301: Navigation Piloting Lab (1 lab report),
- GMA 401: Senior Seminar II: Research Project (27 capstone papers),
- HUM 310: Engineering Ethics (93 research papers),
- ME 494: Project Design II (6 capstone papers), and
- NAU 325: Cargo Vessel Operations (53 research papers).

Two of the artifacts (ME 494 and GMA 401) are designated as capstone courses required of all seniors. The remaining artifacts collected were final assignments in a Junior or Senior level course. These artifacts were collected in an effort to assess student work at a similar level to a capstone project, since not all majors require a capstone.

RESULTS AND DISCUSSION

The benchmark was set for 70% of students to score 3 (Satisfactory) or 4 (Exemplary) for each dimension. Broken down by major, this benchmark was nearly met by some majors for each of the dimensions. For Dimension 1: Location and Evaluation of Sources, 68% of GMSA student artifacts, 69% of FET/MET student artifacts, and 65% of MT student artifacts met or exceeded a score of 3 (Satisfactory) on the rubric. For Dimension 2: Citation/Attributions, 64% of GMSA student artifacts and 67% of FET/MET student artifacts met or exceeded a score of 3 (Satisfactory) on the rubric. For Dimension 3: Topic Selection, 74% of IBL student artifacts, 67% of ME student artifacts, and 67% of MT student artifacts met or exceeded a score of 3 (Satisfactory) on the rubric. This is an improvement over the last cycle of assessment for Information Fluency (2013), when the benchmark was only met by GSMA students, and in only Dimension 1.

The benchmark was farthest from being achieved by IBL student artifacts in both Dimension 1 (36% met or exceed) and Dimension 2 (18% met or exceeded). The 2013 report recommended a credit-based information fluency course for the IBL major. While this recommendation has not yet been implemented, a curriculum mapping project in 2014 led to a revised, scaffolded instruction plan for IBL students, implemented in 2015. This revised instruction program is ongoing and the results will be assessed via program assessment, as well as the next IWAC cycle in 2021.

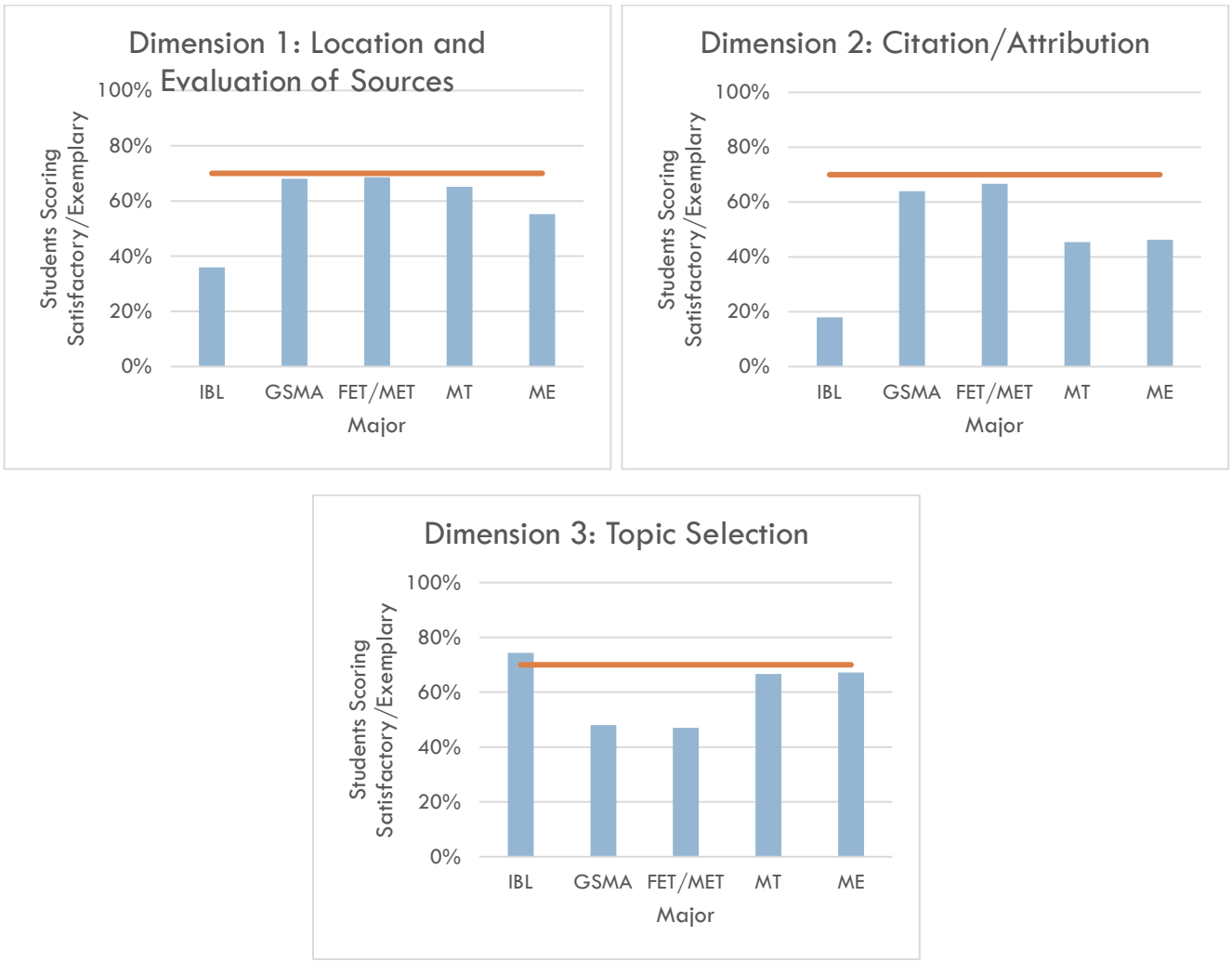

Figure 1. Comparison by Major for Each Dimension

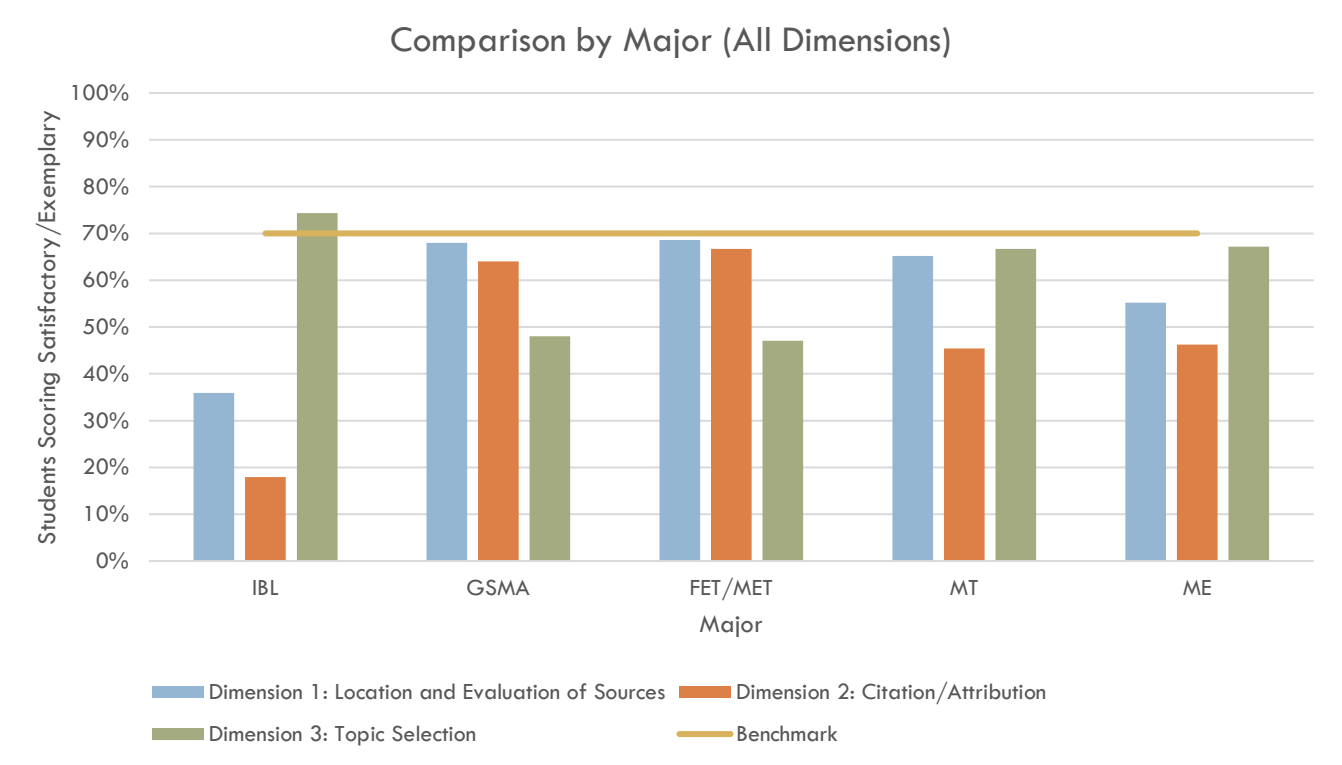

Figure 2. Comparison by Major for All Dimensions

The 2013 report recommended providing resources and development opportunities to faculty related to designing and assessing research assignments. Library faculty have provided annual faculty workshops on research assignment design in the intervening years. Further, in 2016-17, the Library Standing Committee of the Academic Senate reviewed information fluency curriculum integration and considered a variety of options for improving student learning outcomes. This Senate committee recommended prioritizing additional information fluency-related faculty development opportunities, particularly in assignment design. The 2013 report also recommended the adoption of a single citation style across campus in response to low scores for Dimension 2: Citation/Attribution. While this exact recommendation proved impractical, library faculty have advocated for more consistent requirements of citation styles in student assignments via faculty workshops and consultations.

RECOMMENDATIONS

Assessment Efforts

The following recommendations are meant to address the assessment process and should be implemented by IWAC.

- IWAC should store complete sets of raw assessment data in .csv format, in a secure, centralized location. When reviewing 2017 results, we discovered that complete data for the previous assessment cycle had never been made available to the department. This limited effective comparison of the results over time. Centralized data storage in a platform-independent format will preserve the ability to analyze trends over time.

- IWAC should advocate that all programs designate a senior level course that includes a capstone project and provides an individual writing sample for each senior student. Collecting student

artifacts for this assessment cycle was challenging due to the lack of consistent senior-level capstone requirements. For example, MT student artifacts were collected from a junior-level laboratory course and ME capstone reports were written by a group and therefore did not allow for assessment of individual student work.

- IWAC should review and revise Dimension 3 of the Information Fluency rubric. Library faculty found it difficult to score student artifacts consistently because of the variations in assignment prompts. Some assignments had very narrow scopes or assigned topics, which artificially inflated scores above assignments that required students to choose and develop topics themselves.

- IWAC should include an assessment of assignment prompts in addition to student artifacts in the next assessment cycle. Library faculty contribute to information fluency instruction through direct instruction with students as well as faculty development. Library faculty would be better able to prioritize faculty development efforts with these results.

Program Effectiveness

The following recommendations are meant to address the Information Fluency program effectiveness and should be implemented by Library faculty.

- Library faculty should review and revise instruction plans in majors that do not require a credit-based information fluency course. Students in programs that do require credit-based information fluency coursework consistently scored higher than other programs for two of three rubric dimensions. The IBL instruction plan should continue as implemented and be reviewed after program-level assessment in 2018 or 2019. Library faculty should initiate curriculum mapping projects for ME and MT programs and develop scaffolded instruction plans in consultation with faculty in each department.

- Library faculty should continue offering regular faculty development workshops related to integrating information fluency outcomes into discipline-specific assignments and curriculum.

APPENDIX A: SUMMARY OF DATA

Dimension 1: Location and Evaluation of Sources						
Major	**IBL**	**GSMA**	**FET/MET**	**MT**	**ME**	
% Met/Exceeded	36%	68%	69%	65%	55%	
Number Met/ Exceeded	14	17	35	43	37	
Total Artifacts Collected	39	25	51	66	67	
Gender	**M**	**F**				
% Met/Exceeded	58%	66%				
Number Met/ Exceeded	121	25				
Total Artifacts Collected	210	38				
Ethnicity	**Asian**	**Black**	**Hisp**	**Two +**	**Unknown**	**White**
% Met/Exceeded	42%	75%	51%	55%	60%	63%
Number Met/ Exceeded	8	3	19	18	6	92
Total Artifacts Collected	19	4	37	33	10	145
Institution Wide						
% Met/Exceeded	59.20%					
Number Met/ Exceeded	148					
Total Artifacts Collected	250					

Dimension 2: Citation/Attribution						
Major	**IBL**	**GSMA**	**FET/MET**	**MT**	**ME**	
% Met/Exceeded	18%	64%	67%	45%	46%	
Number Met/ Exceeded	7	16	34	30	31	
Total Artifacts Collected	39	25	51	66	67	
Gender	**M**	**F**				
% Met/Exceeded	46%	53%				
Number Met/ Exceeded	96	20				
Total Artifacts Collected	210	38				
Ethnicity	**Asian**	**Black**	**Hisp**	**Two +**	**Unknown**	**White**
% Met/Exceeded	42%	75%	49%	45%	50%	46%
Number Met/ Exceeded	8	3	18	15	5	67
Total Artifacts Collected	19	4	37	33	10	145
Institution Wide						
% Met/Exceeded	47.20%					
Number Met/ Exceeded	118					
Total Artifacts Collected	250					

Dimension 3: Topic Selection						
Major	**IBL**	**GSMA**	**FET/MET**	**MT**	**ME**	
% Met/Exceeded	74%	48%	47%	67%	67%	
Number Met/ Exceeded	29	12	24	44	45	
Total Artifacts Collected	39	25	51	66	67	
Gender	**M**	**F**				
% Met/Exceeded	64%	50%				
Number Met/ Exceeded	134	19				
Total Artifacts Collected	210	38				
Ethnicity	**Asian**	**Black**	**Hisp**	**Two +**	**Unknown**	**White**
% Met/Exceeded	42%	75%	46%	73%	90%	63%
Number Met/ Exceeded	8	3	17	24	9	92
Total Artifacts Collected	19	4	37	33	10	145
Institution Wide						
% Met/Exceeded	62.00%					
Number Met/ Exceeded	155					
Total Artifacts Collected	250					

APPENDIX B: INFORMATION FLUENCY RUBRIC

This rubric is designed to assess student work such as papers, reports, presentations, and other projects for the following CSU Maritime Institution-Wide SLO:

Define a specific need for information; then locate, access, evaluate and effectively apply the needed information to the problem at hand; and effectively use technology in order to create, access, store, process, analyze and communicate information.

	Initial **1**	**Emerging** **2**	**Satisfactory** **3**	**Exemplary** **4**
Location and Evaluation of Sources	Sources do not contribute to assignment. • No exploration of outside sources or only non-authoritative or tertiary sources • Very limited awareness of universe of evidence which could strengthen argument	Sources lack variety/depth • Over relies on one source or type of source • Uses some non-authoritative or outdated sources	Sources are authoritative • Explores outside sources but missing some important sources • Overall source selection may be one-sided	Sources demonstrate thorough, sophisticated research and evaluation • Uses variety of authoritative sources • Kind and type of source match the goal of the argument • Provides reasoned rationale for use of sources
Citation/Attribution	Use of evidence and citation so poor it is impossible to identify or evaluate sources. • Little or no attribution or citation • Fundamental errors in in-text citation or bibliography	Attribution present but incomplete and incorrect. • Citations frequently missing or incorrect • May cite common knowledge • Sources may be mischaracterized (poor summary/paraphrase) • May overuse quotes	Attribution present and complete but with some errors or inconsistencies	Sources cited consistently and correctly • Bibliography (if required) formatted according to consistent style • Paraphrases, summarizes, and quotes appropriately
Topic Selection	Topic or thesis is difficult to determine (1) or weak (2). • No clear articulation of topic or thesis • Topic or thesis is too broad or generic to support evidence-based writing	Topic or thesis needs refinement. • Topic too narrow or too broad • Topic is not arguable/debatable	Topic or thesis is fully developed and demonstrates a manageable focus. • Topic or thesis is clearly defined • Topic lends itself to interpretation or analysis or argument	Topic or thesis demonstrates sophisticated construction • Topic or thesis is open-ended or debatable • Topic or thesis is creative or original