Analysis and Recommendations Regarding the Information Literacy Core Competency

BYU-Hawaiʻi Information Literacy Core Competency Group (= IL Core Competency Group)
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HISTORY

The IL Core Competency Group developed a rubric for evaluating information literacy among BYU-Hawaiʻi students in September and October of 2015. Norming and evaluation sessions were held on December 12, 2015, and January 9, 2016. An Information Literacy Report that disaggregated the data was generated by the team of Kathy Pulotu, the Institutional Research and Assessment Manager on February 10, 2016. The analysis and recommendations below were developed by the IL Core Competency Group through discussion, writing, and revision between February 11 and February 18, 2016.

THE BYU-HAWAIʻI INFORMATION LITERACY RUBRIC

The rubric to evaluate information literacy at BYU-Hawaiʻi consists of the following four criteria:

(1) Knows when information is needed
(2) Locates information
(3) Evaluates information
(4) Uses information effectively and responsibly

The skills levels of information literacy mirror those encouraged by WSCUC: (1) initial, (2) emerging, (3) developing, and (4) highly developed. Emerging is not as good as developing.

ANALYSIS OF THE RESULTS SUMMARY

The results of this analysis are ground-breaking in that they establish a baseline for future assessments of information literacy among students of BYU-Hawaiʻi.

Table 1, the Associates Level Summary (p. 3), shows that nearly half of the students at an emerging level with regards to the criteria "Knows when information is needed" (47%) "Evaluates information" (47%), and "Uses information effectively and responsibly" (44%), and that almost half are at a developing level regarding the criteria "Locates information" (44%).

Table 2, the Bachelor's Level Summary (p. 3), shows that the largest proportion of students, slightly more than one-third are at an emerging level with regards to the criteria "Knows when information is needed" (35%) and "Evaluates information" (35%), and almost half are at the emerging level with the criteria "Uses information effectively and responsibly" (49%). However, more than half of the students at the bachelor's level are at either the developing or highly developed level for the criteria "Knows when information is needed" (58%), "Locates information" (76%) and "Evaluates information" (53%), and slightly under half are at the two higher levels for "Uses information effectively and responsibly" (46%).

Chart 1 (p. 4) shows data supporting generally what we would expect regarding improvement between an associate's degree and a bachelor's degree because the artifacts at the bachelor's level have a higher proportion at the developing and highly developed stages than those at the associate's level. The data for the criteria "Uses information effectively and responsibly" using both tables suggests the necessity for further reflection and study. According to Table 1, 44% are at the emerging stage, but another 44% are at the developing and highly developed stages. This is very similar to what we see in Table 2, 49% at the emerging level and 46% at the developing and highly developed stages. Does the rubric not effectively differentiate between the developing and highly developed stages in relation to students at an associate's and bachelor's level? More data is necessary to see if this trend continues because we should expect a higher percentage of students at the developing and highly developed stages at the bachelor's level. One reason why the assessments might be similar is due to the nature of the artifacts. Many of the artifacts were ENG 201 and ENG 315 papers. Past assessment by the English department suggests little student improvement between written performance levels. Furthermore, in the future, an ENG 315 paper might not be the best artifact to use to evaluate performance of a student at the bachelor level because, according to the new GE program, a student could take ENG 315 in his second semester at the university (after taking ENG 101 in the first semester). Also, because GE 110 is traditionally taken in the freshman year—although information literacy is conventionally introduced in this course—it does not truly reflect student performance at the associate's level.

Chart 2, the Mean differences between EIL and non-EIL students at the bachelor's level (p. 5), portrays about what one would expect: non-EIL students are significantly higher in the criteria of "Evaluates information" and "Uses information effectively and responsibly." However, we cannot assume that these differences may be accounted for simply by native language ability. Differences in cultural and educational background probably also play a significant and/or substantial role in explaining the discrepancy.

Chart 3 (p. 6), which attempts to address ethnicity by focusing on the criterion "Uses information effectively and responsibly," is not particularly helpful. Simply stated, it does not differentiate enough because of a lack of representation. The extremes on the chart comes from underrepresented groups: Black [from Africa or African-American?], Hawaiian, and Hispanic [from Mexico, Central or South American, or Chicano?], and are based on very few artifacts. For instance, greater differentiation on the Asian group might—after gathering more data—render useful data. Asian could be broken down into the following groups: (1) Northeast Asia [Korea and Japan], (2) China [Hong Kong, Taiwan, Mainland China], (4) Philippines, and (5) Malaysia and Indonesia, (6) Other [Mongolia, India, Cambodia, Vietnam, etc.]. Similar breakdowns would be instructive for the Pacific Islander, White, and Black categories.

Chart 4, Bachelor's Level Overall mean score by Home Area, and Table 3, bachelor's level mean scores by home area (p. 7), suggest that students from the Pacific might come less prepared for the university experience at BYU-Hawai'i than students from Asia. Regardless, the data suggests that students from the Pacific and Asia need more support and encouragement.

Table 4, bachelor's level mean scores by college (p. 8), shows that the Math & Sciences (9.52) and Language, Culture, & Arts Colleges (7.44) scored the highest in the criteria associated with information literary. These colleges probably rated higher than the others because the

criteria being assessed are a significant part of the standard curriculum emphasized in courses and are thus reviewed frequently. Furthermore, the high mean score of the Math & Sciences College (3.05 points higher than Business Computing & Government and 3.73 points higher than Human Development) demonstrates the generally higher expectations placed on students and the fact that students are encouraged to revise their work repeatedly, in particular for artifacts from the BIO494 and CHEM494 courses, which are highly polished pieces of written research because of significant guidance by faculty members.

GENERAL FINDINGS AND RECOMMENDATIONS

(1) Faculty in colleges and departments should review the criteria described on the rubric and the data and decide what they want to do about it. In other words, is the core competency of information literacy of significant importance that colleges will seek ways to improve student performance in both requirements and base-level or grading expectations?

(2) A general finding suggests limitations regarding the reliability of our corpus of artifacts. This concerns the issue of collaborative assignments and group projects. Much of the upper-division written work done by students in the School of Business, Computing, & Government (particularly the large majors of Business and Accounting) are assignments completed as group projects. If the university considers student performance in upper-division major classes as a better indicator of actual information literacy skills than performance in ENG 315—for measuring student performance at the bachelor's level, or "at or near graduation"—a procedure needs to be devised to evaluate multi-author artifacts.

Another finding related to the effectiveness of the assessment is selection of GE 110 and ENG 315 as sources of student artifacts. Artifacts GE 110 might not be the best indicator of student information literacy abilities for the associate's level because many students take the course in their first semester at the university. In the future, artifacts from ENG 315 might not be the best indicator of student performance at the bachelor's level because following the current GE model, a student could take ENG 315 immediately after ENG 101, during their freshman or sophomore year. In other words, artifacts from ENG 315 might not show mature student capabilities with information literacy.

(3) Most students tend to do well with the criterion "Locates information," but general improvement of all the criteria in the information literacy core competency will not be achieved by assuming that introduction to the principles of information literacy in a few lower-division courses (viz., Eng. 101, GE 110) is sufficient. In other words, we cannot just teach it in one or two classes and expect that to be sufficient. Instructors of upper-division courses in majors across the university are encouraged to review the criteria and to identify places in their courses and curriculum where criteria may be reviewed and incorporated into assignments.

(4) A baseline for student performance in the information literacy has been achieved. We recommend that the university continue to conduct formal assessment of information literacy on a biannual basis. We recommend that reviews be carried out biannually instead of annual

because gathering information on a biannual basis will allow for a larger number of artifacts to be gathered so as to ensure a more significant sample size.

(5) A final recommendation for the future evaluations of artifacts using the information literacy rubric is that evaluation process should incorporate calibration (two readers evaluating the same artifact). Doing this would create greater precision with respect to the data.

(6) If this study is significant to the university, then we need to find out why students from Asia and the Pacific, who comprise the most significant groups of EIL students on the BYU-Hawai'i campus, are not as prepared as non-EIL students regarding their performance in "Evaluates information" and "Uses information effectively and responsibly." More research needs to be done to ascertain the reasons why students from Asia and the Pacific are not as prepared or do not perform as well.