Technology Literacy Assessment

Spring 2016

Methods

Nineteen courses were selected for assessment of Technology Literacy. Eight of these courses included blended or entirely virtual class options. Only the blended and virtual class sections were included in the assessment, as the classroom-only sections did not incorporate sufficient use of technology for assessment of technology literacy. All assessed courses are listed in Table 1. These courses comprised a total of 263 individual class sections. Two students were randomly selected by a Banner selection tool from each class section, with the exception of the Communications 101 course. This course, having the most class sections, only had one student from each class selected. This sampling method resulted in 377 students.

Table 1. Courses selected for assessment of Technology Literacy

Course	Number of Classes
AH 140	6
ART 115	6
ASTR 103	10
CIS 105	62
CJ 101	11
CNT 120	7
COMM 101	87
ENGR 102	4
NURS 140	9
PLGL 101	3
WEB 102	3
Blended/Virtual Courses	
ACCT 101	11
BIOL 121	6

ECON 201	7
ENGL 207	4
MATH 121	1
PHIL 225	4
PSYC 101	20
WHP 103	2

Within the first month of the semester, instructors for the chosen courses were sent an email announcement informing them that their class had been chosen for assessment and initial instructions for participation. Approximately two weeks later, a second email was sent containing full assessment instructions and a link to an online survey to complete for the selected students for each of their class sections. The survey consisted of an item to indicate whether work from the student was available for assessment, and selection options to indicate why the work may be unavailable. If student work was available for assessment, the survey continued on to the assessment rubric. The analytic rubric assessed students on three dimensions; project management, creation, and communication. These dimensions were comprised of nine individual criteria to be rated on a five-point scale, ranging from 0, no proficiency, to 4, expert proficiency. The survey also included an option to mark any criterion as not applicable if the student work did not contain any elements that could be assessed for that criterion.

Approximately three weeks prior to the end of the semester, a reminder email was sent to instructors whom had not yet completed a survey for their class section(s). Half of the reminder emails were not received by instructors until two days after the initial batch were sent due to a failure of an email server during the process of sending the emails. In addition, some of the links in the emails that were received were corrupted. An additional batch of emails was immediately sent in order to provide functional links to those instructors whom had received non-functional links. However, this email failure caused confusion among instructors.

Results

Surveys were completed for 204(54.1%) students. Work was available for assessment from 150(73.5%) of these students. Of the remaining surveys completed, 31(15.2%) students were

indicated to have dropped the course or did not complete the assignment chosen for assessment, and an additional 23(11.3%) students were not assessed for other reasons. The most commonly cited "other" reason was the unavailability of a suitable assignment for assessment in the class. Surveys were not completed for 173(45.9%) students. It is speculated that the large percentage of incomplete surveys was at least partially due to the failure in the sending process of the reminder email. Scores for the 150 assessed students are given in Table 2.

Table 2. Rubric scores for assessed students

	4-Expert Proficiency	3-Proficiency	2-Some Proficiency	1-Limited Proficiency	0-No Proficiency	Mean (SD)
Project Management						
Technology is appropriate for purpose	61(42.1%)	71(49.0%)	9(6.2%)	3(2.1%)	1(0.7%)	3.30(.74)
File saved in correct format	59(48.0%)	56(45.5%)	6(4.9%)	1(0.8%)	1(0.8%)	3.39(.70)
Creation						
Assignment uses features appropriately	54(37.0%)	77(52.7%)	10(6.8%)	4(2.7%)	1(0.7%)	3.23(.75)
Formatting is consistent, correct…	52(38.2%)	67(49.3%)	14(10.3%)	2(1.5%)	1(0.7%)	3.23(.75)
Layout and/or visual theme is consistent	55(43.3%)	52(40.9%)	17(13.4%)	2(1.6%)	1(0.8%)	3.24(.80)
Hardware is used appropriately	51(42.9%)	57(47.9%)	7(5.9%)	3(2.5%)	1(0.8%)	3.29(.76)

Communication						
Electronic communication is clear and appropriate	66(48.2%)	58(42.3%)	10(7.3%)	3(2.2%)	0	3.37(.72)
Assignment is transmitted correctly	71(51.4%)	57(41.3%)	7(5.1%)	3(2.2%)	0	3.42(.69)
Correctly communicates interaction with technology	66(47.8%)	59(42.8%)	9(6.5%)	4(2.9%)	0	3.36(.73)

Note: Missing and NA responses are not included in table data.

These results show that the means for all criteria fell between the "proficiency" and "advanced proficiency" scale ratings. There is little variability between the mean criteria scores. In addition, the modes for all criteria were either a 3 or a 4; the "proficiency" or "advanced proficiency" ratings.

Scores for the outcome's three main dimensions were calculated by averaging the students' scores for the criteria included under those dimensions. The dimension scores are shown in Table 3.

Table 3. Dimension scores

Dimension	Mean Score
Project Management	3.36(.68)
Creation	3.25(.76)
Communication	3.39(.70)