Critical Thinking Assessment

Fall 2016

Method:

Critical Thinking was assessed through the collection of samples of student work. Thirteen courses were chosen for the assessment (see Table 1), which comprised 93 individual classes. These courses were selected for inclusion by the College-Wide Assessment Committee (CWAC) based upon course outcome mapping to the Critical Thinking General Education Outcome, or course outcomes having relevance to critical thinking. Two students from each of the classes were randomly selected for assessment, for a total of 372 students.

Instructors were initially notified of their class's inclusion in the assessment with an email sent within the first month of the semester. This notice informed the instructors of the outcome that was to be assessed in their class and asked them to await instructions in an additional, forthcoming email notice. The second notice was sent one week following the initial email and contained instructions for submitting pieces of student work and the names of their selected students. Instructors were asked to send samples of work from the selected students that demonstrated the ability to generate a new idea or artifact by combining, changing, or reapplying existing ideas or products. Attached to the email notification was a copy of the rubric that would be used in the assessment to better assist instructors in selecting appropriate pieces of student work. Instructors were also asked to submit a copy or brief description of the assignment in order to assist the assessors in evaluating the student work. Work could be submitted electronically or in paper form. If work could not be submitted, instructors were asked to indicate the reason for the lack of submission, such as the student dropped the course or did not complete the selected assignment. A reminder email was sent to all instructors of selected courses approximately two weeks before the due date for submissions.

All collected artifacts were anonymized and uploaded into the Tk20 assessment software program. The group of nine assessors attended a norming session in which five artifacts were communally assessed in the Tk20 system in order to ensure the reliability of the rubric and within the group of assessors. After the successful norming session, all artifacts were assessed within Tk20 using the rubric. Each artifact was assessed twice, by two different volunteers. The analytic rubric consisted of six dimensions: Identification, method(s), alternate points of view, integration, conclusions/solution(s), and creativity/innovation. The dimensions were rated on a 5-point Lykert-type scale, ranging from 4, expert proficiency, to 0, no proficiency.

Table 1. Courses selected for assessment of Critical Thinking

Course	Number of Classes
BUSI 209	12
CJ 104	4
COMM 110	4
ENGL 207	9
ENGR 102	5
HIST 102	7
MATH 111	11
MATH 113	2
NUTR 104	19
PE 201	11
PSYC 241	4
SOCI 202	4
THTR 146	1

Results

Artifacts were submitted for 202 students (54.3%). Artifacts could not be collected from 44 (11.8%) of the selected students because the students either dropped the course or did not turn in the assignment chosen for assessment. The remaining artifacts were not submitted for various reasons, including the class having no required assignments suitable for assessment, or artifacts being submitted after the assessment deadline. Rubric scores for the assessed students are shown in Table 2. Note that row counts do not total the number of assessed students because each student was assessed twice. In addition, "not applicable" and missing scores were not included in the row totals.

Table 2. Rubric scores

Criterion	0-No Proficiency	1-Limited Proficiency	2-Some Proficiency	3- Proficiency	4-Expert Proficiency	Total	Mean(SD)	NA/ Missing
Identification	5 (1.7%)	24 (8.2%)	67 (23.0%)	131 (45.0%)	64 (22.0%)	291	2.77 (.94)	68 (18.9%)
Method	8 (2.6%)	26 (8.6%)	44 (14.5%)	210 (69.1%)	16 (5.3%)	304	2.66 (.81)	55 (15.3%)
Alternate Points of View	16 (8.7%)	28 (15.3%)	78 (42.6%)	47 (25.7%)	14 (7.7%)	183	2.08 (1.03)	176 (49%)
Integration	4 (1.6%)	20 (7.8%)	88 (34.1%)	129 (50.0%)	17 (6.6%)	258	2.52 (.79)	101 (28.1%)
Conclusions/ Solutions	8 (2.8%)	33 (11.6%)	99 (34.7%)	128 (44.9%)	17 (6.0%)	285	2.40 (.87)	74 (20.6%)
Creativity/ Innovation	7 (3.3%)	50 (23.4%)	94 (43.9%)	53 (24.8%)	10 (4.7%)	214	2.04 (.90)	145 (40.4%)
Total	48	181	470	698	138	1535	2.45	619