



Cardinal Core Assessment of Social & Behavioral Sciences and Historical Perspective (Fall 2019 Sample)

Cardinal Core Program

The Cardinal Core program at the University of Louisville prepares students to do the advanced work needed for their baccalaureate degrees and prepares them to contribute to society throughout their lives through their professional work and civic engagement. The program emphasizes the development of key intellectual skills relevant to any career path: critical thinking, quantitative reasoning, effective communication, and the understanding of historical, social, and cultural diversity. Students will develop these intellectual skills in the following content areas of Arts and Humanities, Historical Perspectives, Oral Communication, Quantitative Reasoning, Social and Behavioral Sciences, Natural Sciences, Written Communication, and the competency area of Diversity in the United States and Globally. Upon completion of the program, students will be prepared to analyze complex problems and evaluate possible courses of action in an environment characterized by diversity and the need for sustainable solutions.

Assessment Administration

The assessment of student learning outcomes is a national expectation in higher education. Section 8.2.b of the Southern Association of Colleges and Schools' (SACS) accreditation standards requires that the institution identify student learning outcomes for collegiate-level general education competencies in its undergraduate degree programs, assess the extent to which it achieves these outcomes, and provide evidence of seeking improvement based on analysis of the results. Further, the Kentucky Council on Postsecondary Education (CPE) states that "All Kentucky public universities and KCTCS colleges are expected to assess, in accordance with SACS-COC Principles of Accreditation and based upon nationally accepted standards, the student learning outcomes associated with their general education programs, indicate a relationship to the faculty-generated Statewide General Education Student Learning Outcomes, and provide evidence of ongoing assessment that ensures comparability for transfer purposes on a three-year cycle."

The Cardinal Core Curriculum Committee (CCCC) is charged with continued oversight of the assessment of student learning outcomes across the Cardinal Core curriculum to support the continuous improvement of the Cardinal Core program in alignment with SACS and CPE requirements. The assessment operates on a three-year cycle, in which samples of student work are collected from one content area each semester and assessed by a panel of trained faculty. The CCCC began a pilot of the Association of American Colleges and Universities (AAC&U) VALUE (Valid Assessment of Learning in Undergraduate Education) Rubrics in the first cycle of the Cardinal Core Assessment. Specifically, the Critical Thinking, Intercultural Knowledge and Competence, Oral Communication, Quantitative Literacy, and Written Communication VALUE Rubrics will be used to measure the Cardinal Core program's overarching intellectual

skills of critical thinking, effective communication, quantitative reasoning, and social, historical, and cultural diversity.

The Fall 2019 assessment was focused on courses in the Social & Behavioral Sciences (SB) and Historical Perspective (SBH) content areas. Samples of student work from SB and SBH courses were assessed using the Critical Thinking, Written Communication, and Intercultural Knowledge and Competence VALUE Rubrics. The University of Louisville Outcomes, Kentucky Statewide Outcomes, and the AAC&U VALUE Rubric Measures used to assess courses in the Social & Behavioral Sciences and Historical Perspective content areas are provided below.

University of Louisville Social & Behavioral Sciences Learning Outcomes

Social and Behavioral Sciences are concerned with understanding human behavior, human interactions, human environment, and the related social structures and forms. Students who satisfy this requirement will demonstrate that they are able to do all of the following:

1. Apply knowledge and theories and analyze evidence via qualitative and/or quantitative research methods that are utilized in the field.
2. Identify how different fields of inquiry conceptualize diversity and the dynamics of social inequalities.
3. Represent and critically respond to multiple points of view on cultural issues as expressed in different historical, social, and cultural contexts.
4. Use critical thinking and reasoning skills such as making inferences, evaluating assumptions, and assessing limitations of knowledge claims.
5. Communicate effectively in speech and writing, while respecting others' contributions, through proper citation appropriate to the discipline.

University of Louisville Historical Perspective Outcomes

Historical Perspective is concerned with understanding change over time. Courses addressing this requirement cover a broad body of historical knowledge and compare different societies and cultures. Students who satisfy this requirement will demonstrate that they are able to do all of the following:

1. Demonstrate the ability to use primary sources to answer a question about historical causality or change over time.
2. Demonstrate the ability to understand and contrast alternative historical interpretations of events.
3. Demonstrate the ability to understand and the importance of changing context and to understand events in different cultural contexts.
4. Communicate effectively in writing and use citation appropriate to the discipline.

Statewide Social & Behavioral Sciences Student Learning Outcomes

1. Demonstrate knowledge of at least one area of the social and behavioral sciences.
2. Apply knowledge, theories, and research methods, including ethical conduct, to analyze problems pertinent to at least one area of the social and behavioral sciences.

3. Understand and demonstrate how at least one area of the social and behavioral sciences conceptualizes diversity and the ways it shapes human experience.
4. Integrate knowledge of at least one area of the social and behavioral sciences into issues of personal or public importance.
5. Communicate effectively using the language and terminology germane to at least one area of the social and behavioral sciences.

AAC&U VALUE Rubric Measures

Critical Thinking VALUE Rubric

- (CT1) Explanation of issues
- (CT2) Evidence – Selecting and using information to investigate a point of view or conclusion
- (CT3) Influence of context and assumptions
- (CT4) Student’s position (perspective, thesis/hypothesis)
- (CT5) Conclusions and related outcomes (implications and consequences)

Written Communication VALUE Rubric

- (WC1) Context of and Purpose for Writing
- (WC2) Content Development
- (WC3) Genre and Disciplinary Conventions
- (WC4) Sources and Evidence
- (WC5) Control of Syntax and Mechanics

Intercultural Knowledge and Competence VALUE Rubric

- (IKC1) Knowledge: Cultural self-awareness
- (IKC2) Knowledge: Knowledge of cultural worldview frameworks
- (IKC3) Skills: Empathy
- (IKC4) Skills: Verbal and nonverbal communication
- (IKC5) Attitudes: Curiosity
- (IKC6) Attitudes: Openness

The AAC&U VALUE Rubrics use four scoring categories, with 4 indicating performance of the measure as “capstone” level, 3 indicating performance at “milestone,” 2 indicating “milestone,” and 1 indicating performance at “benchmark.” In addition, a score of zero can be assigned to any work that does not meet the benchmark level performance. The University of Louisville further disaggregates the zero option into a “not applicable” rating that can be selected for assignments that did not provide an opportunity for the student to demonstrate the criterion within the rubric measure, as opposed to the student simply not demonstrating the rubric criteria.

Assessment Process

For the Fall 2019 assessment of student work from the Social & Behavioral Sciences (SB) and Historical Perspective (SBH) content areas, the Cardinal Core Office collaborated with department chairs regarding the details of the upcoming assessment to ensure faculty participation and appropriate sampling. A formal memo outlining the project and process was also provided to each of the department chairs and to all faculty teaching Cardinal Core courses within the SB and SBH content areas prior to the start of the semester to ensure a mutual understanding of project expectations. The initial communication provided a timeline for collection of assignment prompts and student work.

After the semester withdrawal deadline passed, the Cardinal Core Office retrieved the class rosters for all SB and SBH Cardinal Core courses from the Office of the Registrar and selected a stratified random sampling, to ensure that the sample included students from all courses. Instructors of all SB and SBH courses were sent a list of students selected for the assessment along with detailed instructions requesting that instructors provide a copy of one assignment prompt along with the ungraded responses for the selected students to be sent via email to the Cardinal Core Office service account.

Student artifacts were collected and stored in an electronic repository and uploaded into the LiveText© assessment management system. A panel of faculty (tenured and tenure-track faculty, term faculty, and adjunct faculty) and graduate teaching assistants assessed student artifacts. The AAC&U Critical Thinking, Written Communication, and Intercultural Knowledge and Competence VALUE Rubrics were applied to all student artifacts.

Prior to the assessment reading, assessors completed an online training module featuring an overview of the assessment process and detailed dissection of the assessment rubrics. Assessors were asked to complete one sample assessment prior to attending a face-to-face norming session. During the norming session, faculty assessors individually reviewed and scored benchmark sample assignments. Benchmarks were assignments selected to represent a wide range of content and skill development in order to give the assessors a baseline for measuring expectations of learning and evaluating student performance (Herman, Osmundson, & Dietel, 2010). Assessors then engaged in discussion about the benchmark assessment scores to share their rationales for why particular scores were selected. To highlight the reliability of the training scoring, the results from scoring benchmark samples for the Critical Thinking, Written Communication, and Intercultural Knowledge and Competence VALUE Rubrics is provided in Appendix A.

At the start of the assessment reading day, each faculty assessor was assigned a username and password for one of three LiveText© accounts and a list of courses and sections to assess. Three readers assessed each artifact so that scores could be compared across assessors for reliability purposes.

Data Collection Overview

The enrollment for Social & Behavioral Sciences (SB) Cardinal Core courses in Fall 2019 was approximately 5192 students after the withdraw deadline and enrollment for Historical Perspective (SBH) was approximately 1487. The Cardinal Core Office collected a stratified

random sample of 555 student work samples. Of the 555 work samples, 424 came from SB courses and 131 came from SBH courses. 93 of the SB courses also fulfilled a U.S. Diversity (D1) requirement and 66 fulfilled a Global Diversity (D2) requirement. Of the 131 SBH courses, 37 fulfilled a U.S. Diversity (D1) requirement and 83 fulfilled a Global Diversity (D2) requirement. The sample came from courses in the College of Arts & Sciences, College of Business, College of Education and Human Development, Kent School of Social Work, School of Nursing, and the School of Public Health.

Summary of Assessment Data

For the assessment of Social & Behavioral Sciences (SB) and Historical Perspective (SBH) outcomes, 555 student artifacts were assessed by faculty and graduate teaching assistants from the College of Arts & Sciences, College of Business, College of Education and Human Development, Dental School, Kent School of Social Work, School of Nursing, and the School of Public Health, using the AAC&U Critical Thinking, Written Communication, and Intercultural Knowledge and Competence VALUE Rubrics.

Table 1, Table 2, and Table 3 provide the percentage of work samples scored at each rubric level for the Critical Thinking, Written Communication, and Intercultural Knowledge and Competence VALUE Rubrics. All AAC&U VALUE Rubrics provide an option for a “0” score and for purposes of understanding why a “0” was assigned, the Cardinal Core Assessment provided reviewers with the option of “Not Applicable”. The “Not Applicable” indicates an absence of the assessment criteria due to the type of assignment, while a “0” indicates that the student could have demonstrated the criteria and did not.

Table 1

Percentage of Artifacts Scored at Each Rubric Level for Critical Thinking

	CT1	CT2	CT3	CT4	CT5
Capstone (4)	7.4%	2.1%	2.3%	2.5%	3.8%
Milestone (3)	36.6%	28.4%	21.4%	24.4%	23.0%
Milestone (2)	35.6%	40.2%	34.4%	31.3%	38.9%
Benchmark (1)	10.8%	14.3%	24.0%	27.1%	19.8%
(0)	1.1%	2.5%	6.5%	2.8%	2.3%
Not Applicable (NA)	8.6%	12.5%	11.4%	11.9%	12.3%

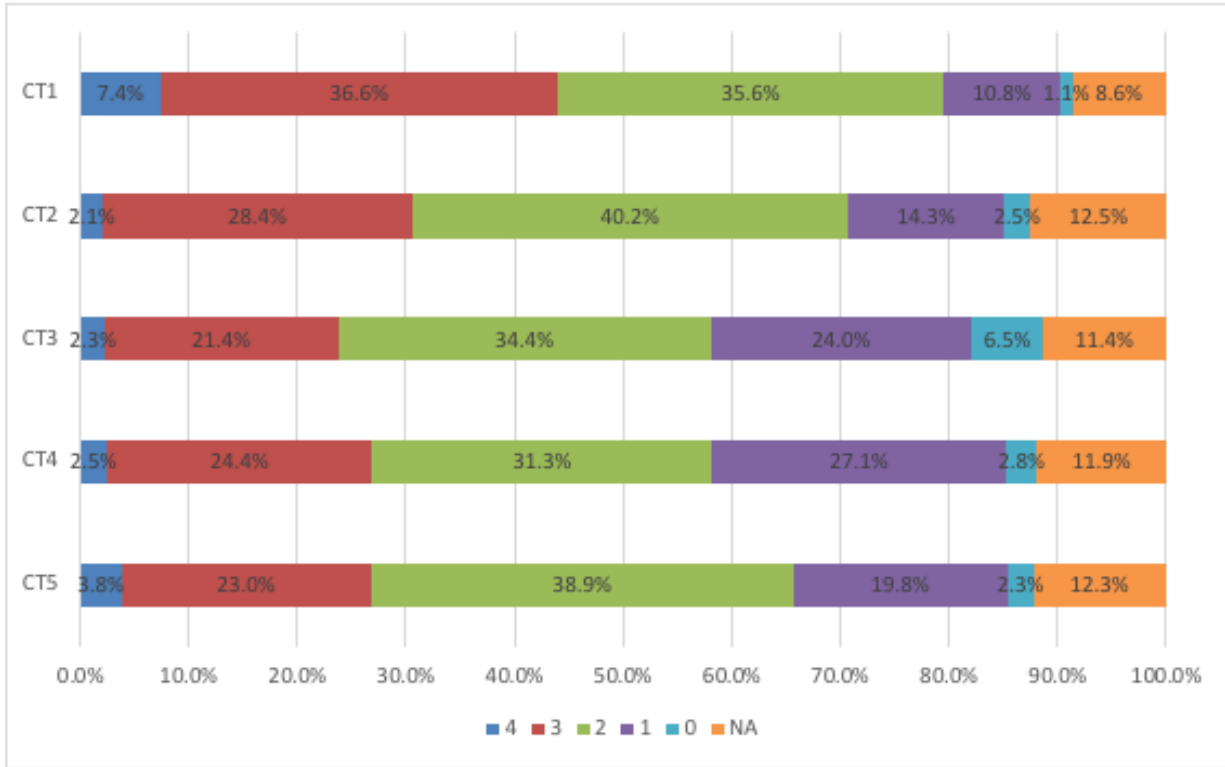


Figure 1. Percentage of Artifacts Scored at Each Rubric Level for Critical Thinking

Table 2

Percentage of Artifacts Scored at Each Rubric Level for Written Communication

	WC1	WC2	WC3	WC4	WC5
Capstone (4)	8.4%	4.7%	3.5%	3.2%	4.8%
Milestone (3)	33.5%	27.6%	30.8%	27.4%	42.0%
Milestone (2)	35.2%	36.0%	37.8%	31.5%	36.3%
Benchmark (1)	14.3%	20.6%	16.9%	20.3%	9.3%
(0)	0.6%	2.0%	1.7%	3.5%	0.2%
Not Applicable (NA)	8.0%	9.0%	9.3%	14.1%	7.3%

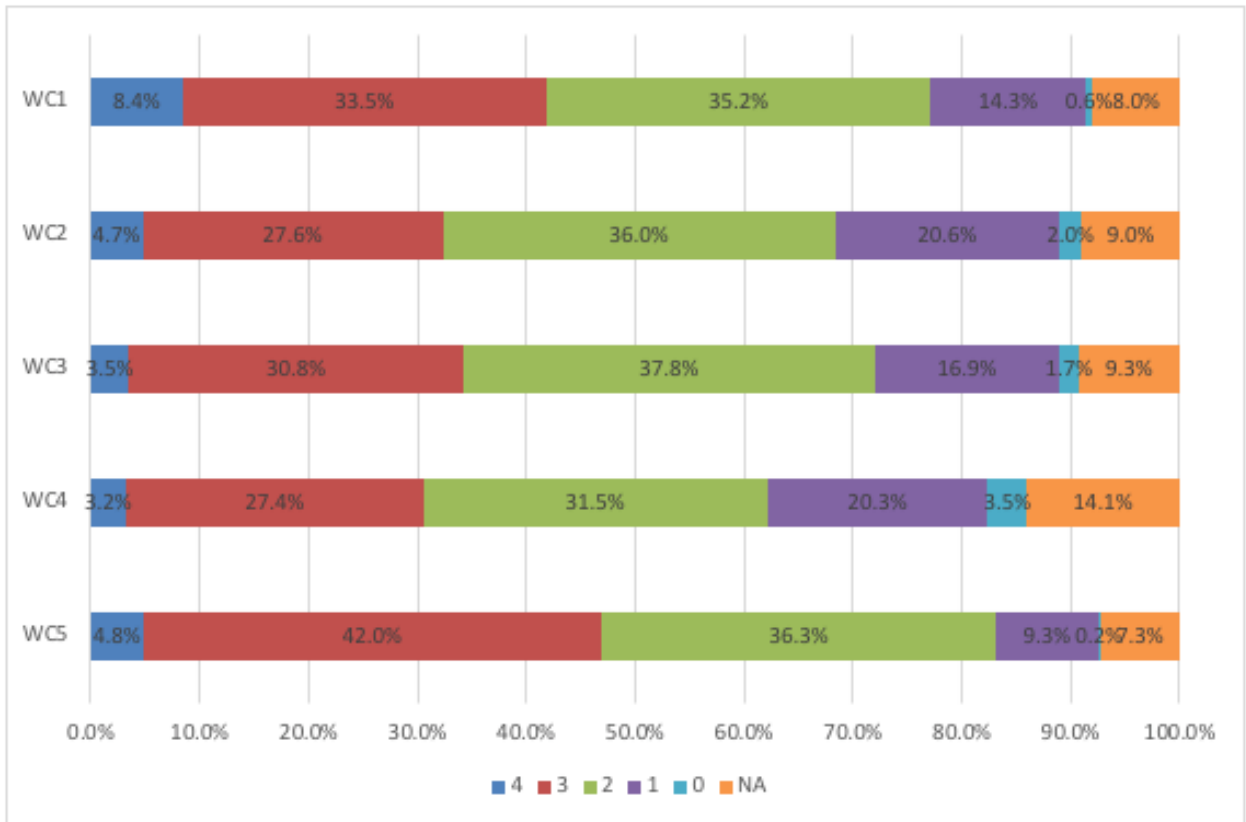


Figure 2. Percentage of Artifacts Scored at Each Rubric Level for Written Communication

Table 3

Percentage of Artifacts Scored at Each Rubric Level for Intercultural Knowledge and Competence

	IKC1	IKC2	IKC3	IKC4	IKC5	IKC6
Capstone (4)	2.9%	2.2%	3.6%	1.5%	2.7%	3.7%
Milestone (3)	21.9%	15.0%	19.0%	9.7%	15.1%	16.3%
Milestone (2)	23.6%	16.6%	20.9%	12.9%	27.4%	18.9%
Benchmark (1)	23.2%	18.0%	22.4%	11.8%	16.6%	16.6%
(0)	4.4%	4.7%	4.3%	4.8%	5.5%	6.3%
Not Applicable (NA)	24.0%	43.6%	29.7%	59.3%	32.7%	38.3%

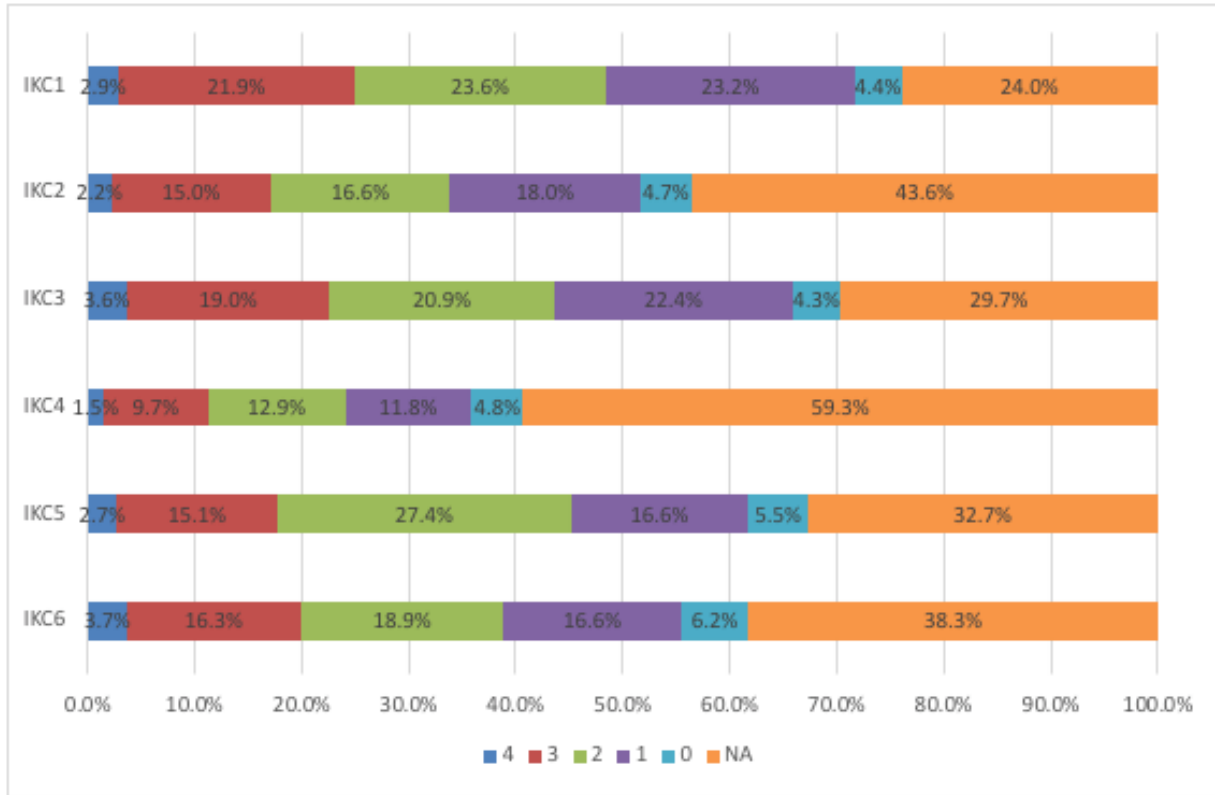


Figure 3. Percentage of Artifacts Scored at Each Rubric Level for Intercultural Knowledge and Competence

Since the Assessment of Social & Behavioral Sciences and Historical Perspective included courses that also fulfilled U.S. Diversity (D1) and Global Diversity (D2) requirements, a comparison of ratings based on diversity classification is provided in Table 4. Prior to conducting this analysis, individual ratings were calculated for each student work sample. These ratings were calculated by averaging the scores assigned by each of the three reviewers and rounding to the nearest whole number. The individual ratings by rubric category (row) were then compared across groups. The mean for each rubric row for courses without a Diversity designation, courses with a U.S. Diversity (D1) designation, and courses with a Global Diversity (D2) designation is provided in Table 4 and Figure 4.

Table 4

Comparison of Courses by Diversity Designation

	No Diversity Designation	U.S. Diversity (D1) Designation	Global Diversity (D2) Designation
CT1	2.08	2.48	2.38
CT2	1.67	2.05	2.27
CT3	1.47	1.92	1.93
CT4	1.65	2.01	2.01
CT5	1.75	2.06	2.01
WC1	2.00	2.40	2.44
WC2	1.80	2.18	2.20

WC3	1.88	2.28	2.20
WC4	1.67	1.85	2.14
WC5	2.17	2.45	2.52
IKC1	1.26	1.82	1.95
IKC2	0.59	0.92	1.95
IKC3	1.04	1.70	2.00
IKC4	0.40	0.49	1.27
IKC5	1.02	1.45	1.99
IKC6	0.94	1.24	1.82

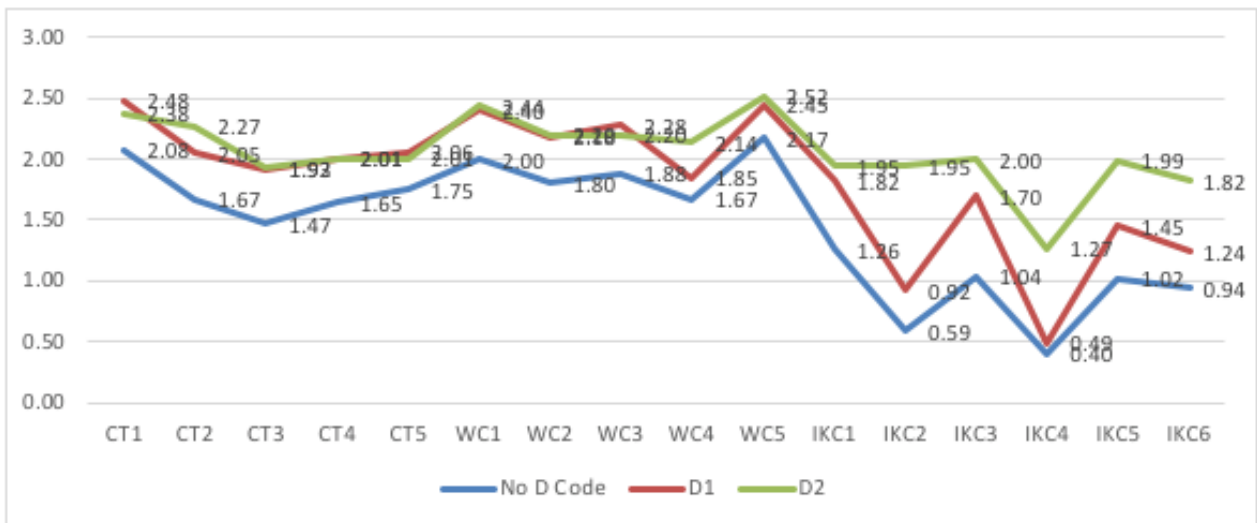


Figure 4. Comparison of Courses by Diversity Designation

A one-way analysis of variance (ANOVA) revealed that there were significant differences in the means of work samples for courses without a Diversity designation, courses with a U.S. Diversity (D1) designation, and courses with a Global Diversity (D2) designation on all rubric measures.

Critical Thinking

There was a significant difference between groups for CT1 [$F(2,552) = 11.25, p < .05$], CT2 [$F(2,522) = 552 = 23.21, p < .05$], CT3 [$F(2,552) = 18.26, p < .05$], CT4 [$F(2,552) = 12.56, p < .05$], and CT5 [$F(2,552) = 7.50, p < .05$]. Post hoc comparisons using Tukey HSD test indicated that the mean score for work samples from courses with no Diversity designation was significantly different from courses with a U.S. Diversity (D1) designation and courses with a Global Diversity (D2) designation, but there were no significant differences between samples from courses with a D1 and D2 designation for all CT measures. The results indicate that students in courses with a D1 or D2 designation scored significantly higher than students in a course without a Diversity designation on all Critical Thinking rubric measures.

Written Communication

There was a significant difference between groups for WC1 [$F(2,552) = 16.32, p < .05$], WC2 [$F(2,552) = 13.72, p < .05$], WC3 [$F(2,552) = 12.22, p < .05$], WC4 [$F(2,522) = 12.90, p < .05$], and WC5 [$F(2,522) = 10.24, p < .05$]. Post hoc comparisons using Tukey HSD test indicated that the

mean score for work samples from courses with no Diversity designation was significantly different from courses with a U.S. Diversity (D1) designation on all rubric measures except for WC4, the mean score for work samples from courses with no Diversity designation was significantly different from courses with a Global Diversity (D2) designation on all rubric measures, and there were no significant differences between samples from courses with a D1 or a D2 designation for any of the WC measures. The results indicate that students in courses with a D2 designation scored significantly higher than students in a course without a Diversity designation on all Written Communication rubric measures and students in courses with a D1 designation scored significantly higher than students in a course without a Diversity designation on WC1, WC2, WC3, and WC5.

Intercultural Knowledge and Competence

There was a significant difference between groups for IKC1 [F(2,552) = 26.86, $p < .05$], IKC2 [F(2,552) = 91.23, $p < .05$], IKC3 [F(2,552) = 43.87, $p < .05$], IKC4 [F(2,552) = 41.71, $p < .05$], IKC5 [F(2,552) = 43.24, $p < .05$], and IKC6 [F(2,552) = 28.16, $p < .05$]. Post hoc comparisons using Tukey HSD test indicated that the mean score for work samples from courses with no Diversity designation was significantly different from courses with a U.S. Diversity (D1) designation for all IKC measures except for IKC4, the mean score for work samples from courses with no Diversity designation was significantly different from courses with a Global Diversity (D2) designation for all IKC rubric measures, and the mean score for work samples from courses with a U.S. Diversity (D1) designation was significantly different from courses with a Global Diversity (D2) designation for IKC3, IKC4, IKC5, and IKC6. The results indicate that students in courses with a D2 designation scored significantly higher than students in a course without a Diversity designation on all Intercultural Knowledge and Competence rubric measures and scored significantly higher than students in U.S. Diversity (D1) courses for IKC3, IKC4, IKC5, and IKC6. The results further indicate the students in U.S. Diversity (D1) courses scored significantly higher than students in courses with no Diversity designation for all IKC measures except for IKC4.

Inter-rater Reliability

Three separate readers assessed each student artifact. Table 5 displays the mean score for the three separate readings of all artifacts.

Table 5

Inter-rater Summary for Critical Thinking, Written Communication, and Intercultural Knowledge and Competence VALUE Rubric Measure

	Assessor 1	Assessor 2	Assessor 3	Standard Deviation
CT1	2.01	2.12	2.51	.26
CT2	1.69	1.85	2.11	.21
CT3	1.42	1.63	1.94	.26
CT4	1.39	1.73	2.06	.34
CT5	1.58	1.78	2.09	.26
WC1	2.61	2.51	2.12	.26

WC2	2.72	2.80	2.30	.27
WC3	2.69	2.67	2.29	.22
WC4	2.48	2.86	2.21	.33
WC5	2.60	2.42	2.07	.27
IKC1	1.18	1.43	1.83	.33
IKC2	.84	.88	1.42	.32
IKC3	1.03	1.37	1.67	.32
IKC4	.66	.52	1.00	.25
IKC5	.93	1.35	1.54	.31
IKC6	.90	1.23	1.41	.25

In addition to the descriptive statistics, Table 6 provides multiple measures of inter-rater reliability. The percentage agreement value was calculated to determine the percentage of artifacts for which all three assessors scored at the either the same or within one performance level. Values for *Total Agreement* provided in Table 6 represent the percentage of artifacts for which all three assessors selected the same score (e.g., Assessors 1, 2, and 3 all selected 3). *Agreement (within 1 level)* represents the percentage of artifacts for which all three assessors scored the artifact at the same performance level or within one level (e.g., Assessor 1 selected a score of 3, Assessor 2 selected a score of 2, and Assessor 3 also selected a score of 2). If the assessor assigned “not requested” for the artifact that was treated as a 0 for the inter-rater reliability analysis since a 0 and “not requested” would both indicate the reviewer did not see the student demonstrate any component of the rubric measure.

In addition to percentage agreement, a one-way, average-measures intra-class correlation coefficient (ICC) was calculated to assess inter-rater reliability. ICC coefficients between .75 and 1.00 are considered excellent, .60 to .74 considered good, .40 to .59 fair, and below .4 is considered poor (Cicchetti, 1994).

Table 6

Inter-rater Reliability for Critical Thinking, Written Communication, and Intercultural Knowledge and Competence VALUE Rubric Measure

Competency Measure	Total Agreement	Agreement (within 1 level)	ICC	95% Confidence Interval
CT1	20.9%	68.6%	.70	(.65-.74)
CT2	22.9%	69.2%	.71	(.67-.75)
CT3	21.8%	60.7%	.64	(.59-.69)
CT4	19.3%	58.0%	.60	(.54-.66)
CT5	18.0%	59.8%	.60	(.54-.65)
WC1	17.8%	67.6%	.70	(.66-.74)
WC2	22.5%	69.4%	.73	(.69-.77)
WC3	19.1%	69.4%	.69	(.64-.73)
WC4	17.3%	54.2%	.63	(.57-.68)
WC5	23.2%	77.5%	.70	(.65-.74)
IKC1	14.4%	43.4%	.44	(.35-.52)
IKC2	24.5%	50.1%	.49	(.41-.56)
IKC3	20.4%	50.8%	.58	(.51-.64)

IKC4	32.6%	53.0%	.34	(.24-.43)
IKC5	19.5%	44.7%	.50	(.42-.56)
IKC6	17.8%	40.5%	.39	(.30-.48)

Syllabus Review

The Provost requests that all faculty load their syllabi to Blackboard© each semester. These syllabi are then available through the university’s course catalog system. For the purpose of this review, the Cardinal Core Office collected all Social & Behavioral Sciences (SB) and Historical Perspective (SBH) syllabi that were loaded to Blackboard in Fall 2019.

The review of syllabi sought to answer two questions:

- 1) Does the syllabus contain the content specific Cardinal Core learning outcomes approved for the course?
- 2) Are assessment methods stated that support the content-specific Cardinal Core learning outcomes approved for the course?

The syllabus review included syllabi from 164 of 174 SB and SBH Cardinal Core course sections offered in the Fall of 2019 resulting in a 94.3% sample. Crosslisted courses only counted once. Table 7 provides a breakdown of the number of Cardinal Core syllabi available, the number of syllabi with the outcomes stated, and the number of syllabi that included the assessment methods.

Table 7

Social & Behavioral Sciences and Historical Perspective Syllabus Review

	Syllabi Available	Cardinal Core Outcomes Listed in Syllabus	Assessment Methods
Courses	164 (94.3%)	131 (79.9%)	116 (71.2%)

The review of 164 Cardinal Core syllabi identified 131 syllabi (79.9%) containing the appropriate (SB, SBH, D1, and/or D2) Cardinal Core learning outcomes approved for the course. Further review of the 164 syllabi revealed that 116 syllabi (71.2%) also listed the assessment methods for the Cardinal Core outcomes.

The Cardinal Core Curriculum Committee (CCCC) has continued to emphasize the importance of incorporating the Cardinal Core learning outcomes into course syllabi. Integration of the Cardinal Core outcomes into the syllabus is one indication to the committee that faculty are incorporating the learning outcomes into the course curriculum.

Summary and Plan for Improvement

Through the university's participation in the AAC&U VALUE Institute in 2018-19, a team of six faculty members participated in VALUE Institute rubric training to gain greater expertise in the application of the VALUE rubrics. The information gathered through this training was used to develop new online training videos for each of the three VALUE rubrics used in the SB and SBH assessment. The Cardinal Core Curriculum Committee (CCCC) and specifically the Assessment Subcommittee have indicated that they favor the transition to online training to provide more structure for the faculty, as well as self-paced scoring and continuous access to training materials. The CCCC compared the inter-rater reliability statistics between this assessment and the previous assessment (AH) conducted in 2018-19 and results indicate improvement of inter-rater reliability which the committee feels can be directly attributed to new insight into the AAC&U VALUE rubrics and changes to the training process. The Cardinal Core Office will continue to shift materials to an online environment to align with AAC&U practices and engage more faculty in AAC&U training opportunities.

While the results of the assessment indicate significant differences in student performance between courses with Diversity designations and courses without Diversity designations, it should be noted that many of the work samples for courses without a Diversity designation came from large lecture courses. Most often these work samples had limited or no written component making it difficult to apply the assessment rubrics. This could explain some of the significant differences outlined in the summary of assessment data.

Through involvement in the AAC&U VALUE Institute and rubric training, the CCCC has become aware that the Intercultural Knowledge and Competence Rubric has some limitations when assessing courses that are not designated Global Diversity (D2). IKC2, "Knowledge of cultural worldview frameworks" and IKC4, "Verbal and nonverbal communication" are both intended to be used only when there is discussion or comparison to cultures outside of the United States. This is based on the intended application of the rubric by AAC&U. As a result, a large number of student work samples would automatically receive a "N/A" rating for these two rubric measures. The CCCC will revisit the use of this rubric for evaluating "understanding of historical, social, and cultural diversity" at the completion of the first cycle of assessment, which is expected to conclude in 2021.

In conclusion, the results of this assessment are intended to help faculty in identifying potential strengths and areas for growth in the Cardinal Core curriculum. While this first cycle of assessment has some limitations, the data indicate students are performing better on some measures or outcomes than others. It is recommended that faculty take this into consideration in their own curriculum and assignments to ensure that students are developing the knowledge, skills, and dispositions outlined in the Cardinal Core program.

To improve the assessment process, the CCCC will continue to shift the assessment training and norming process to an online environment to provide greater structure to faculty throughout the process, increase accessibility to valuable resources, and also allow faculty the flexibility to review materials and complete practice scoring at their own pace. The CCCC will also be considering additional or alternative rubrics to address gaps and limitations with the Intercultural Knowledge and Competence VALUE Rubric at the conclusion of the first assessment cycle (3-years) of Cardinal Core.

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Appendix A. Results from Assessment Training for Critical Thinking, Written Communication, and Intercultural Knowledge and Competence VALUE Rubrics

Table 1. Critical Thinking VALUE Rubric

Results of Benchmark Sample 1 – Critical Thinking VALUE Rubric

Measures	Capstone (4)	Milestone (3)	Milestone (2)	Benchmark (1)	(0)	N/A
CT1	6.5%	22.6%	58.1%	9.7%	3.2%	0
CT2	0	16.7%	73.3%	6.7%	0	3.3%
CT3	3.2%	16.1%	58.1%	22.6%	0	0
CT4	0	20.0%	36.7%	43.3%	0	0
CT5	3.2%	6.5%	58.1%	29.0%	3.2%	0

Results of Benchmark Sample 2 – Critical Thinking VALUE Rubric

Measures	Capstone (4)	Milestone (3)	Milestone (2)	Benchmark (1)	(0)	N/A
CT1	24.1%	72.4%	3.4%	0	0	0
CT2	15.2%	48.5%	36.4%	0	0	0
CT3	6.5%	48.4%	35.5%	9.7%	0	0
CT4	18.2%	51.5%	24.2%	6.1%	0	0
CT5	3.0%	39.4%	57.6%	0	0	0

Results of Benchmark Sample 3 – Critical Thinking VALUE Rubric

Measures	Capstone (4)	Milestone (3)	Milestone (2)	Benchmark (1)	(0)	N/A
CT1	3.6%	53.6%	35.7%	7.1%	0	0
CT2	0	44.4%	51.9%	3.7%	0	0
CT3	0	25.0%	64.3%	10.7%	0	0
CT4	3.6%	42.9%	32.1%	21.4%	0	0
CT5	0	21.4%	64.3%	14.3%	0	0

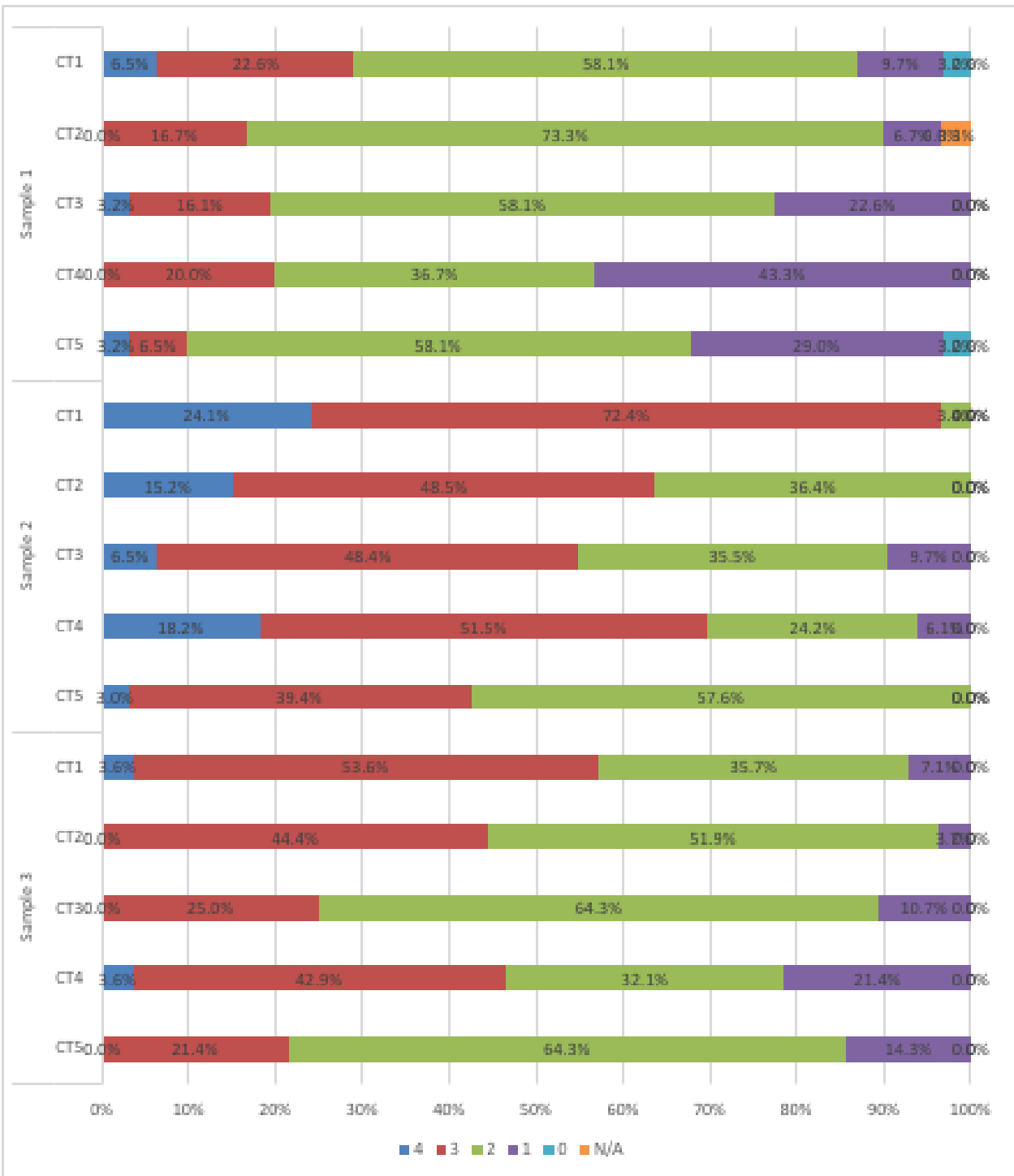


Figure 1. Critical Thinking VALUE Rubric Training Results

Table 2. Written Communication VALUE Rubric

Results of Benchmark Sample 1 – Written Communication VALUE Rubric

Measures	Capstone (4)	Milestone (3)	Milestone (2)	Benchmark (1)	(0)	N/A
WC1	0	32.3%	45.2%	22.6%	0	0
WC2	3.2%	19.4%	61.3%	16.1%	0	0
WC3	3.2%	22.6%	48.4%	22.6%	3.2%	0
WC4	3.2%	29.0%	48.4%	12.9%	3.2%	3.2%
WC5	3.2%	45.2%	41.9%	9.7%	0	0

Results of Benchmark Sample 2 – Written Communication VALUE Rubric

Measures	Capstone (4)	Milestone (3)	Milestone (2)	Benchmark (1)	(0)	N/A
WC1	18.2%	69.7%	12.1%	0	0	0
WC2	19.4%	67.7%	12.9%	0	0	0
WC3	9.1%	69.7%	18.2%	3.0%	0	0
WC4	6.3%	46.9%	43.8%	3.1%	0	0
WC5	6.5%	83.9%	9.7%	0	0	0

Results of Benchmark Sample 3 – Written Communication VALUE Rubric

Measures	Capstone (4)	Milestone (3)	Milestone (2)	Benchmark (1)	(0)	N/A
WC1	0	77.8%	18.5%	0	3.7%	0
WC2	0	39.3%	53.6%	7.1%	0	0
WC3	0	48.1%	40.7%	11.1%	0	0
WC4	0	40.7%	40.7%	11.1%	0	7.4%
WC5	0	63.0%	29.6%	3.7%	3.7%	0

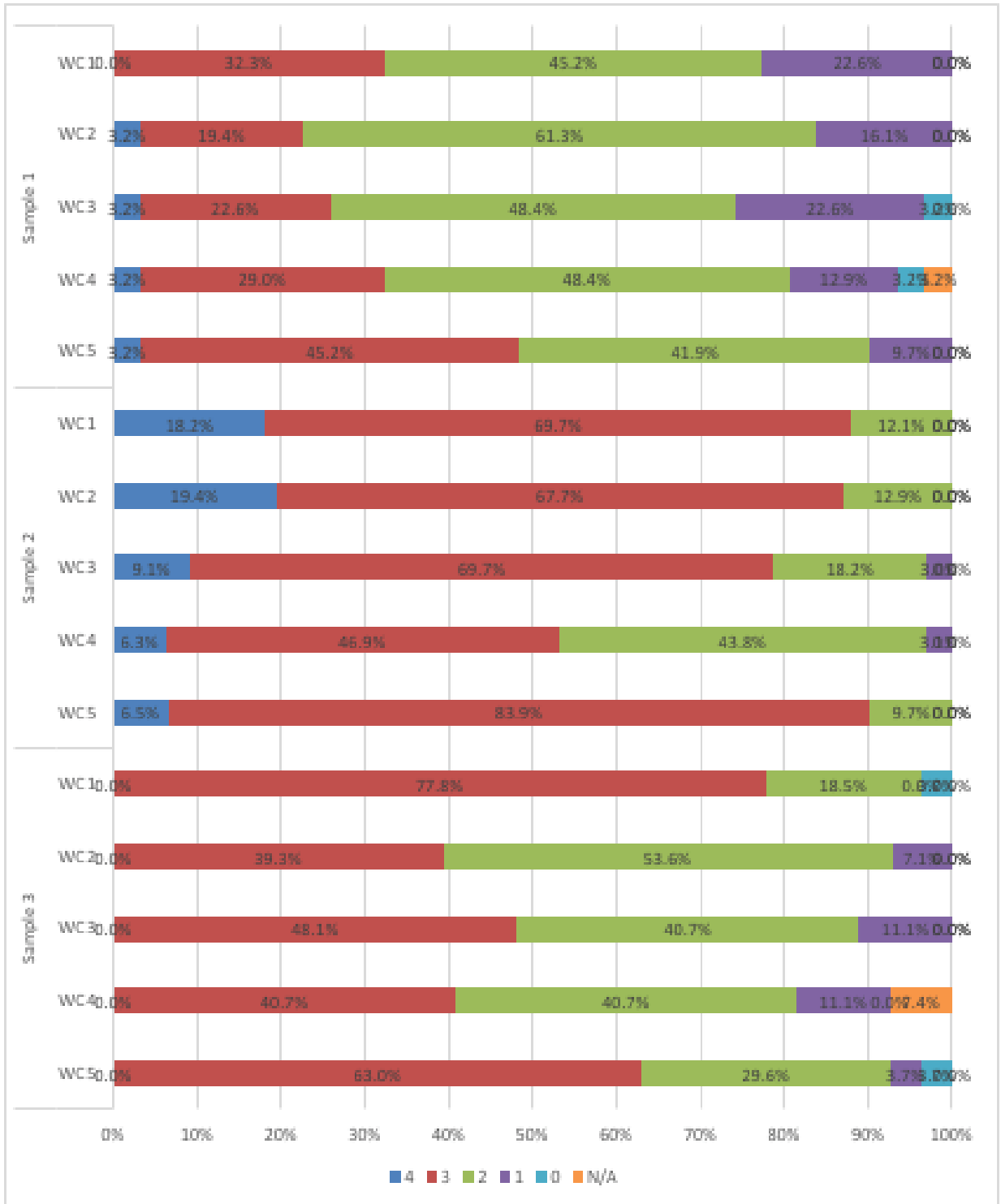


Figure 2. Written Communication VALUE Rubric Training Results

Table 3. Intercultural Knowledge and Competence VALUE Rubric

Results of Benchmark Sample 1 – Intercultural Knowledge and Competence VALUE Rubric

Measures	Capstone (4)	Milestone (3)	Milestone (2)	Benchmark (1)	(0)	N/A
IKC1	6.5%	29.0%	54.8%	9.7%	0	0
IKC2	0	25.8%	48.4%	19.4%	3.2%	3.2%
IKC3	6.5%	32.3%	35.5%	16.1%	3.2%	6.5%
IKC4	0	35.5%	29.0%	3.2%	0	32.3%
IKC5	0	9.7%	48.4%	16.1%	9.7%	16.1%
IKC6	3.2%	22.6%	22.6%	16.1%	6.5%	29.0%

Results of Benchmark Sample 2 – Intercultural Knowledge and Competence VALUE Rubric

Measures	Capstone (4)	Milestone (3)	Milestone (2)	Benchmark (1)	(0)	N/A
IKC1	12.5%	50.0%	34.4%	3.1%	0	0
IKC2	9.4%	59.4%	28.1%	3.1%	0	0
IKC3	0	60.6%	36.4%	0	0	3.0%
IKC4	0	31.3%	28.1%	3.1%	0	37.5%
IKC5	9.1%	42.4%	45.5%	3.0%	0	0
IKC6	3.1%	56.3%	31.3%	0	3.1%	6.3%

Results of Benchmark Sample 3 – Intercultural Knowledge and Competence VALUE Rubric

Measures	Capstone (4)	Milestone (3)	Milestone (2)	Benchmark (1)	(0)	N/A
IKC1	0	37.5%	33.3%	12.5%	8.3%	8.3%
IKC2	0	40.0%	40.0%	20.0%	0	0
IKC3	12.5%	41.7%	33.3%	12.5%	0	0
IKC4	4.0%	20.0%	40.0%	8.0%	0	28.0%
IKC5	4.0%	20.0%	68.0%	8.0%	0	0
IKC6	8.0%	32.0%	36.0%	24.0%	0	0

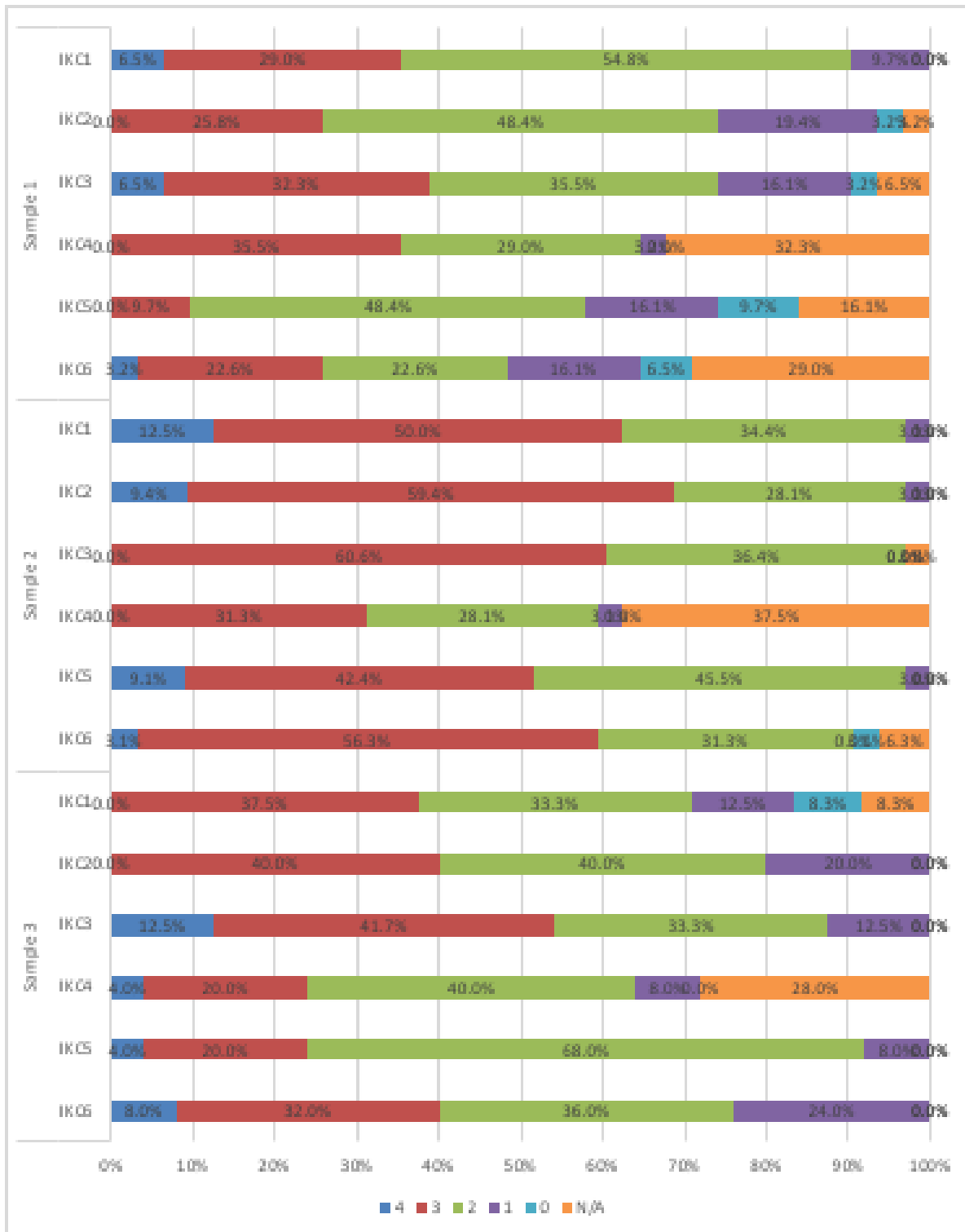


Figure 3. Intercultural Knowledge and Competence VALUE Rubric Training Results