

# Cardinal Core Assessment of Written Communication (Academic Year 2024-25)

#### **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 Commission on Colleges' (SACSCOC) 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 SACSCOC 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 SACSCOC and CPE requirements. The assessment operates on a three-year cycle, in which samples of student work are collected from at least two content areas each academic year and assessed by a panel of trained faculty. In 2024-25, the program's overarching competencies of critical thinking, effective communication (written), and understanding of historical, social, and cultural diversity were assessed in the Written Communication (WC) content area. The CCCC has designated the American Association of Colleges & Universities (AAC&U) Critical Thinking VALUE Rubric, the AAC&U Written Communication VALUE Rubric, and the University of Louisville's Cardinal Core Diversity Rubric as the instruments to measure these competency areas.

The University of Louisville Outcomes, Kentucky Statewide Outcomes, and the rubric measures used to assess courses in the Written Communication content area are provided below.

#### **University of Louisville Written Communication Learning Outcomes**

Written Communication is the ability to develop and express ideas, opinions, and information in appropriate forms. To fulfill this requirement, students will complete, revise, and share a substantial amount of writing in multiple genres or media. Students who satisfy this requirement will:

- 1. Produce writing that reflects a multi-stage composing and revising process and that illustrates multiple strategies of invention, drafting, and revision.
- 2. Select and/or use appropriate genres for a variety of purposes, situations, and audiences.
- 3. Apply academic conventions in different writing situations; employ structural conventions such as organization, formatting, paragraphing, and tone; and use appropriate surface features such as syntax, grammar, punctuation, and spelling.
- 4. Employ critical thinking processes to create an understanding of knowledge as existing within a broader context and to incorporate an awareness of multiple points of view.
- 5. Select, evaluate, and integrate material from a variety of sources into their writing and use citation appropriate to the discipline.

#### **Statewide Written Communication Student Learning Outcomes**

- 1. Write clear and effective prose in several forms, using conventions appropriate to audience (including academic audiences), purpose, and genre.
- 2. Listen and speak competently in a variety of communication contexts, which may include public, interpersonal, and/or small-group settings.
- 3. Find, analyze, evaluate, and cite pertinent primary and secondary sources, including academic databases, to prepare speeches and written texts.
- 4. Identify, analyze, and evaluate statements, assumptions, and conclusions representing diverse points of view; and construct informed, sustained, and ethical arguments in response.
- 5. Plan, organize, revise, practice, edit, and proofread to improve the development and clarity of ideas.

#### **Rubric Measures**

AAC&U 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)

#### AAC&U 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

University of Louisville, Cardinal Core Diversity Rubric

- (D1) Knowledge of social, historical, and cultural structures
- (D2) Applied Knowledge
- (D3) Cultural Awareness
- (D4) Attitudes/Openness

The AAC&U VALUE Rubrics and the UofL Cardinal Core Diversity rubric use a four-point scale, 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 and "not applicable" could be assigned for assignments that did not provide an opportunity for the student to demonstrate the criterion within the rubric measure.

#### **Assessment Process**

For the 2024-25 assessment of student work from the Written Communication (WC) content area, the Cardinal Core Office collaborated with the Director of Composition and the Director of Dual-Credit Written Communication courses 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 all faculty teaching Cardinal Core courses within the WC content area 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. Multiple follow-up communications were sent throughout the fall semester. The Director of Composition also invited the Cardinal Core Office to provide an overview of the assessment and past results at the orientation for composition instructors prior to the start of the fall semester.

After the semester withdrawal deadline passed, the Cardinal Core Office retrieved the class rosters for all WC Cardinal Core courses from the Office of the Registrar and selected a stratified random sample, to ensure that the sample included students from across all courses. Instructors of all WC courses were sent a list of students selected for the assessment along with detailed instructions requesting that instructors provide a copy of one assignment 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) assessed student artifacts. Most reviewers had previously

participated in multiple assessments and had experience with applying the AAC&U VALUE Rubrics. The AAC&U Critical Thinking VALUE Rubric, AAC&U Written Communication VALUE Rubric, and the University of Louisville Cardinal Core Diversity Rubric were applied to all student artifacts.

Prior to the assessment reading, assessors completed mandatory training/rubric norming. Training materials were developed in collaboration with the CCCC Assessment Subcommittee and based upon UofL's long-standing general education assessment training practices, as well as AAC&U VALUE Institute training procedures. All participants were required to complete an asynchronous training module, consisting of an overview of the assessment process and holistic assessment practices, a dissection of each rubric, and scoring of 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 were given a week to complete the training module in Blackboard and submit their scores for all benchmark samples. The results of the benchmark scoring were compiled, presented, and discussed during a collaborative meeting. Competency areas (rubric rows) with disagreement among reviewers were discussed in the findings shared with reviewers to clarify intended applications of the rubrics. The results from scoring benchmark samples are provided in Appendix A.

After completion of the assessment training/rubric norming, each 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. Assessors were given a week to complete all assessments.

#### **Data Collection Overview**

The enrollment for Written Communication (WC) Cardinal Core courses in Fall 2024 was approximately 4901 students at the time the sample for the assessment was selected. The Cardinal Core Office waited to identify a sample after the deadline to withdraw from courses passed and received 452 student work samples. Samples were included from dual-credit and Quality Leadership University (Panama) WC courses.

#### **Summary of Assessment Data**

For the assessment of Written Communication outcomes, 452 student artifacts were assessed by faculty from the College of Arts & Sciences, College of Business, Kent School of Social Work, School of Dentistry, and University Libraries, using the AAC&U Critical Thinking VALUE Rubric, Written Communication VALUE Rubric, and the University of Louisville Cardinal Core Diversity Rubric.

Table 1, 2, and 3 provide the percentage of work samples scored at each rubric level for Critical Thinking, Written Communication, and Diversity. A calculation of the percentage of students who scored at a 3 or 4 (after any not applicable ratings were removed) is also included from both 2020-21 and 2024-25 assessments to provide a comparison of student performance. This was the first assessment of WC using the University of Louisville Cardinal Core Diversity Rubric, so there were no ratings from 2020-21.

Table 1

Percentage of Artifacts Scored at Each Rubric Level for Critical Thinking

	CT1	CT2	CT3	CT4	CT5
Capstone (4)	19.4%	10.6%	10.3%	11.3%	14.6%
Milestone (3)	49.0%	39.1%	36.8%	41.4%	37.7%
Milestone (2)	27.4%	36.9%	41.4%	33.3%	39.6%
Benchmark (1)	4.0%	8.1%	10.6%	13.5%	7.2%
(0)	0.2%	1.5%	0.8%	0.6%	0.5%
Not Applicable (NA)	0.0%	3.8%	0.1%	0.0%	0.4%
*%Scored at 4 & 3 (2024-25)	68.4%	51.6%	47.1%	52.7%	52.5%
*%Scored at 4 & 3 (2020-21)	52.3%	34.8%	32.0%	32.9%	30.8%

<sup>\*</sup>Not Applicable scores were removed for calculating the % of students scoring at 4 or 3.

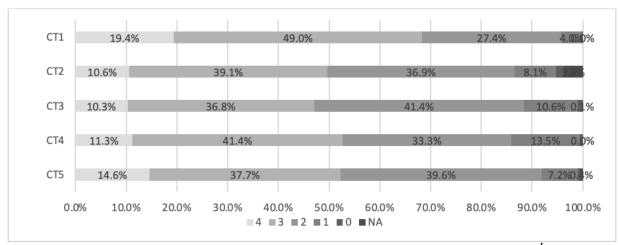


Figure 1. Percentage of Artifacts Scored at Each Rubric Level for Critical Thinking

Table 2

Percentage of Artifacts Scored at Each Rubric Level for Written Communication

	WC1	WC2	WC3	WC4	WC5
Capstone (4)	19.5%	16.0%	12.9%	12.9%	15.9%
Milestone (3)	45.7%	41.3%	39.0%	37.2%	49.8%
Milestone (2)	27.4%	32.6%	35.7%	32.5%	29.2%
Benchmark (1)	6.9%	9.6%	11.7%	10.8%	4.7%
(0)	0.4%	0.5%	0.7%	1.9%	0.4%
Not Applicable (NA)	0.0%	0.0%	0.0%	4.6%	0.0%
*%Scored at 4 & 3 (2024-25)	65.3%	57.3%	51.9%	52.6%	65.6%
*%Scored at 4 & 3 (2020-21)	48.4%	41.6%	40.3%	37.3%	54.2%

<sup>\*</sup>Not Applicable scores were removed for calculating the % of students scoring at 4 or 3.

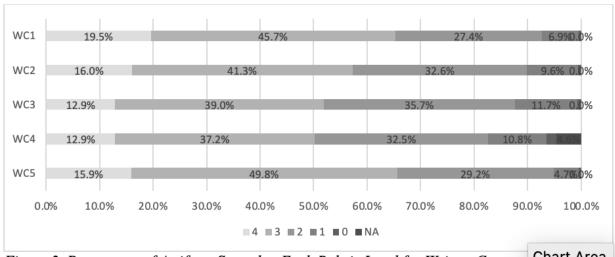


Figure 2. Percentage of Artifacts Scored at Each Rubric Level for Written Commun Chart Area

Table 3

Percentage of Artifacts Scored at Each Rubric Level for Diversity

	D1	D2	D3	D4
Capstone (4)	9.8%	9.1%	10.2%	15.9%
Milestone (3)	41.7%	35.9%	37.9%	58.6%
Milestone (2)	34.1%	33.8%	37.5%	14.4%
Benchmark (1)	8.5%	15.0%	8.5%	5.2%
(0)	0.8%	0.7%	0.7%	0.7%
Not Applicable (NA)	5.0%	5.5%	5.2%	5.2%
*%Scored at 4 & 3 (2024-25)	54.3%	47.6%	50.7%	78.5%

<sup>\*</sup>Not Applicable scores were removed for calculating the % of students scoring at 4 or 3.

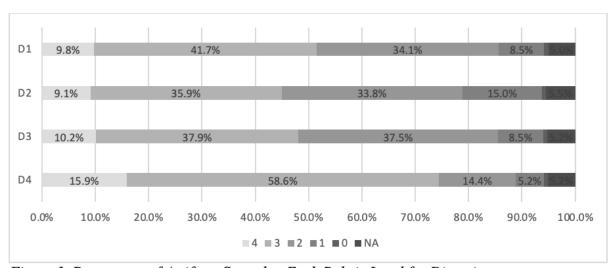


Figure 3. Percentage of Artifacts Scored at Each Rubric Level for Diversity

In alignment with AAC&U VALUE Institute practices, scores for each individual work sample were calculated based upon scores assigned by three separate reviewers. The scores from all three reviewers were averaged and rounded to determine individual work sample scores for each rubric row. The mode for the individual work sample scores is provided in Table 4.

Table 4

Mode for Critical Thinking VALUE Rubric, Written Communication VALUE Rubric, and Cardinal Core Diversity Rubric

	CT1	CT2	CT3	CT4	CT5
Mode	3	3	2	3	3
	WC1	WC2	WC3	WC4	WC5
Mode	3	3	3	3	3
	D1	D2	D3	<b>D4</b>	_
Mode	3	2	3	3	

#### **Mode of Delivery Courses**

For further understanding of student performance we sought to determine if there were any significant differences between student performance between face-to-face, distance education, or off-site (dual-credit and Panama) courses, using the average of student overall scores for each rubric measure.

A multivariate test (MANOVA) revealed that there was a statistically significant difference in performance on rubric measures based on mode of delivery, [F(28, 872)=2.12, p<.05; Wilk's  $\Lambda=.877]$ . To determine how the results for these measures differ by group the tests of between subjects revealed statistically significant differences for critical thinking measures CT2 (p<.05), CT4 (p<.05), and CT5 (p<.05), as well as diversity measure D4 (p<.05). Post-hoc analysis revealed samples from face-to-face courses scored significantly higher than off-site courses on CT2 (p<.05), face-to-face courses scored significantly higher than distance education courses for CT4 (p<.05), face-to-face courses scored significantly higher than distance education for D4 (p<.05), and off-site courses scored significantly higher than distance education for D4 (p<.05).

Mean for University of Louisville Cardinal Core Rubrics by Course Delivery Mode

	Face-to-Face	<b>Distance Education</b>	Off-site
	Courses	Courses	(Dual Credit/ Panama)
CT1	2.87	2.70	2.82
CT2*	*2.51	2.38	*2.26
CT3	2.51	2.34	2.42
CT4*	*2.58	*2.38	2.48
CT5*	*2.63	*2.44	2.57
WC1	2.81	2.69	2.69
WC2	2.66	2.54	2.68
WC3	2.52	2.48	2.58
WC4	2.49	2.37	2.27
WC5	2.78	2.66	2.88
D1	2.42	2.35	2.44
D2	2.27	2.22	2.38
D3	2.38	2.31	2.49
D4*	2.68	*2.64	*2.89

#### **Assignment Type**

Table 5

For further understanding of student performance, we sought to determine if there were any significant differences based on the type of assignment students were asked to complete. Assignments were coded into three separate categories (1) research project, (2) literacy narrative, and (3) essay assignment. Research projects included traditional research papers and source analysis assignments, literacy narratives were all focused on students reflecting on their own literacy journey, and essays were traditionally shorter assignments such as personal essays or argumentative essays. There were 155 assignments coded as research assignments, 178 coded as literacy narratives, and 119 coded as essay assignments.

A multivariate test (MANOVA) revealed that there was a statistically significant difference in performance on rubric measures based on type of assignment, [F(28, 872)=3.80, p<.05; Wilk's  $\Lambda=.794]$ . To determine how the results for these measures differ by group the tests of between subjects revealed statistically significant differences for critical thinking measures CT2 (p<.05), CT3 (p<.05), WC4 (p<.05), and all diversity measures (p<.05). Post-hoc analysis revealed research project samples scored significantly higher than literacy narratives and essay assignments on CT2 (p<.05) and research projects scored significantly higher than essay assignments for CT3 (p<.05). For written communication, research projects scored significantly higher than literacy narratives and essay assignments for WC4 (p<.05). On the diversity rubric, research projects scored significantly higher than literacy narratives on D1 (p<.05) and D3 (p<.05), and essay assignments scored significantly higher than research projects and literacy narratives on D4 (p<.05).

Table 6

Mean for University of Louisville Cardinal Core Rubrics by Assignment Type

	Research Project	Literacy Narrative	Essay Assignment
CT1	2.89	2.75	2.81
CT2*	*2.63	*2.33	*2.32
CT3*	*2.56	2.45	*2.30
CT4	2.56	2.51	2.42
CT5	2.59	2.53	2.59
WC1	2.84	2.75	2.65
WC2	2.72	2.56	2.62
WC3	2.57	2.49	2.50
WC4*	*2.68	*2.28	*2.28
WC5	2.75	2.72	2.84
D1*	*2.54	*2.28	2.41
D2	2.36	2.17	2.33
D3*	*2.50	*2.24	2.45
D4*	*2.77	*2.58	*2.82

# **Inter-rater Reliability**

Three separate readers assessed each student artifact. Table 7 displays the mean score for the three separate readings of all artifacts.

Table 7

Inter-rater Summary for Critical Thinking VALUE Rubric, Written Communication VALUE Rubric, and the University of Louisville Cardinal Core Diversity Rubric

	Assessor 1	Assessor 2	Assessor 3	Standard Deviation
CT1	2.89	2.88	2.73	0.09
CT2	2.33	2.48	2.44	0.07
CT3	2.48	2.50	2.36	0.07
CT4	2.49	2.55	2.44	0.06
CT5	2.47	2.72	2.54	0.13
WC1	2.83	2.75	2.73	0.05
WC2	2.66	2.67	2.55	0.07
WC3	2.50	2.55	2.51	0.03
WC4	2.20	2.54	2.44	0.18
WC5	2.77	2.78	2.72	0.03
D1	2.37	2.50	2.37	0.08
D2	2.28	2.33	2.19	0.07
D3	2.33	2.48	2.33	0.09
D4	2.81	2.71	2.69	0.07

In addition to the descriptive statistics, Table 8 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 either the same or within one performance level. Values for *Total Agreement* provided in Table 8 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 8

Inter-rater Reliability for Critical Thinking VALUE Rubric, Written Communication VALUE Rubric, and the University of Louisville Cardinal Core Diversity Rubric

<b>Competency Measure</b>	Total Agreement	Agreement (within 1 level)	ICC	95% Confidence Interval
CT1	17.9%	80.1%	0.55	(.4762)
CT2	16.2%	65.9%	0.50	(.4258)
CT3	16.8%	71.0%	0.47	(.3855)
CT4	16.4%	68.4%	0.47	(.4761)
CT5	17.9%	69.9%	0.49	(.4057)
WC1	17.0%	73.9%	0.55	(.4862)
WC2	15.0%	67.3%	0.50	(.4157)
WC3	17.3%	68.8%	0.53	(.4560)
WC4	11.5%	58.6%	0.52	(.4459)
WC5	21.5%	81.2%	0.56	(.4963)
D1	15.0%	63.1%	0.45	(.3553)
D2	14.2%	57.3%	0.50	(.4157)
D3	16.6%	62.4%	0.50	(.3754)
D4	22.8%	69.9%	0.38	(.2747)

#### **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 this review, the Cardinal Core Office collected all Written Communication (WC) syllabi that were loaded to Blackboard in Fall 2024.

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 review of 153 Cardinal Core WC syllabi identified 135 syllabi (88.2%) containing the appropriate Cardinal Core learning outcomes approved for the course. Further review of the 153 syllabi revealed that 122 syllabi (79.7%) also listed the corresponding assessment methods.

#### **Summary and Plan for Improvement**

For critical thinking skills, there was an increase in the percentage of work samples scored at the highest two performance levels from the 2020-2021 to the 2024-2025 academic year assessments on all rubric measures. Results of the Written Communication (WC) assessment indicate students performed highest on explanation of issues (CT1) and lowest on use of evidence (CT2) and influence of context and assumptions (CT3).

For written communication skills, there was an increase in the percentage of work samples scored at the highest two performance levels for all rubric measures from 2020-2021 to 2024-2025. Context and purpose for writing (WC1) and control of syntax and mechanics (WC5) continue to be the highest performing areas. Genre and disciplinary conventions (WC3), and sources and evidence (WC4) were lower performing written communication measures.

There were some significant differences in scoring based on mode of instruction, however these differences were not for all measures. The differences in scoring based on assignment type, indicate some types of assignments may lend better to incorporating evidence or demonstrating understanding of historical, social, and cultural diversity.

The results of this assessment are intended to help drive program improvement and support student growth. Faculty are encouraged to continue to emphasize building these competencies within their courses as well as consider the impacts of assignment design and selection on student ability to meet the competencies of the program.

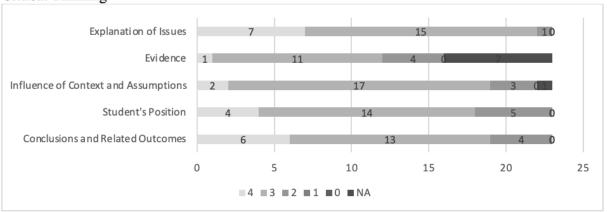
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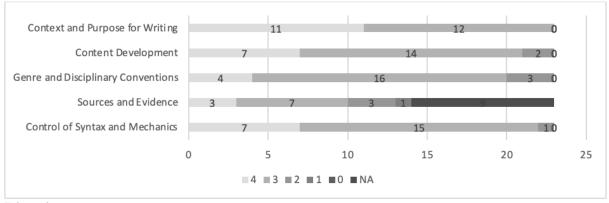
# Appendix A. Results from Assessment Training for the Critical Thinking VALUE Rubric, Written Communication VALUE Rubric, and University of Louisville Cardinal Core Diversity Rubric

Sample 1

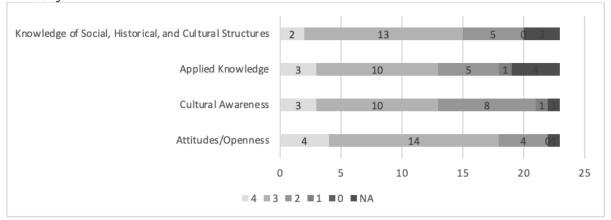
#### Critical Thinking



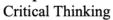
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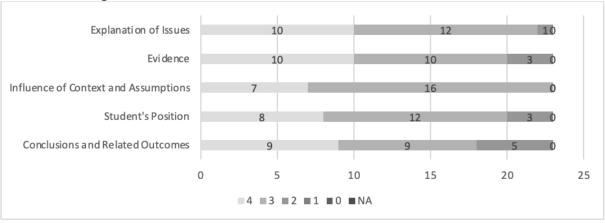




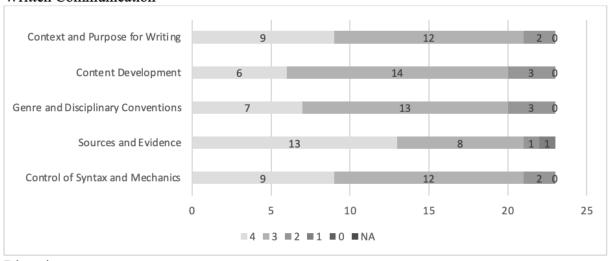


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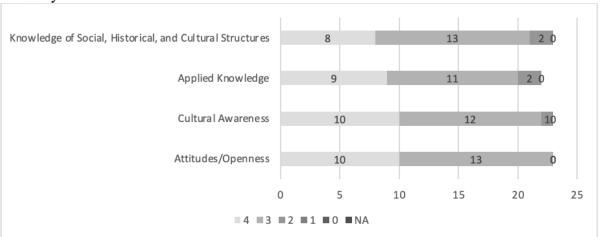




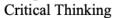
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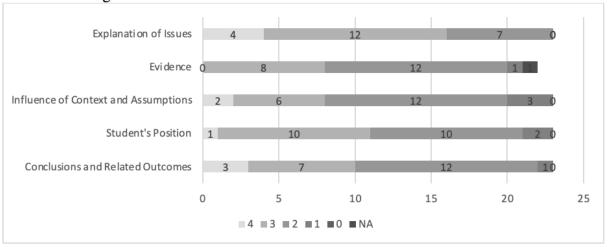




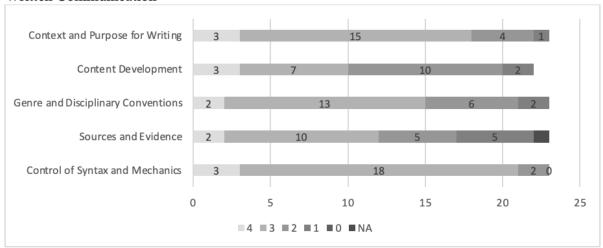


Sample 3





#### Written Communication

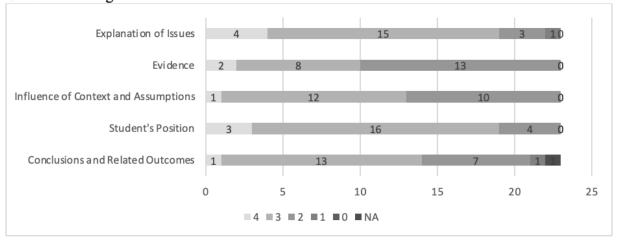


# Diversity

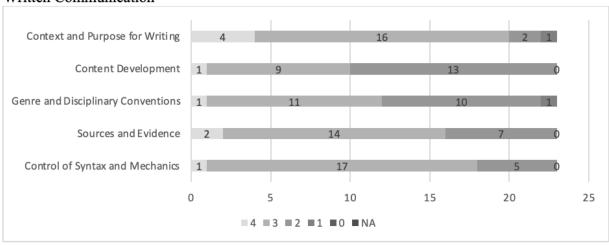


Sample 4





#### Written Communication



### Diversity

