Office of Academic Planning and Assessment

A Report of the Assessment of Written Communication (AWC)

College of Education
College of Health Sciences
College of Science and Engineering Technology

2020-2021

Description of Assessment of Written Communication (AWC)

Each academic year, approximately 500 student writing artifacts are collected and assessed using a locally-developed writing rubric. This rubric was developed by faculty with expertise in teaching and assessing student writing and is assumed to have content related validity (Banta & Palomba, 2015). Over a three-year period, each academic college at SHSU will participate in the Assessment of Written Communication (AWC) and submit artifacts for scoring. These student artifacts either come directly from courses within those colleges or from required capstone projects; therefore, the artifacts represent authentic student work (Banta & Palomba, 2015; Kuh et al., 2015).

The student data presented within this report reflect student performance regarding the Texas Higher Education Coordinating Board's Core Learning Objective of Communication Skills (THECB, 2021). The THECB (2021) defines Communication Skills as "effective development, interpretation, and expression of ideas through written, oral and visual communication." Data from this assessment may therefore be used to address the written communication element of the broader concept of Communication Skills. These data should be used in conjunction with other data to fully understand student knowledge and ability regarding this Core Learning Objective.

Methodology

A total of 688 artifacts were submitted from upper division courses from the College of Education (282), the College of Health Sciences (299), and the College of Science and Engineering Technology (107), although some were not scored. Of the artifacts not scored, 13 were either anchor papers used for norming or had other issues that prevented them from being included. Therefore, a total of 675 artifacts from all three colleges for 2020-2021 were scored as part of this writing assessment.

Student writing artifacts were scored by faculty and staff volunteers during a two-day in-person scoring session in July 2021 using a locally-developed writing rubric. This rubric was divided into four separate domains: (1) Ideas/Critical Thinking/Synthesis; (2) Style; (3) Organization; and (4) Conventions. A copy of this rubric is provided in the Appendix. Each domain was scored individually from 1 to 4, with 1 being the lowest and 4 being the highest. Each artifact was reviewed by two raters, with a third rater introduced when the scores were too far out of agreement (i.e., a score of 1 and 4 for the same domain). The third rater would only score those domains that were not in agreement and the two closest scores would be kept. The individual domain scores for each student writing artifact were then averaged together to provide a total average score for the artifact.

Score Reliability

Intraclass correlational coefficients (ICCs) were calculated to determine the level of inter-rater agreement for each domain of student writing, as well as the overall average scores (Fleiss, 2003; Shrout & Fleiss, 1979). According to Cicchetti (1994), ICC agreement values below .40 are to be interpreted as demonstrating poor agreement, from .40 to .59 as demonstrating fair agreement, .60 to .74 as demonstrating good agreement, and .75 and above as demonstrating excellent agreement. The agreement values for three of the individual writing domains were in the good range, while the agreement value for the organization domain was approaching the good range. The overall average score was .74 indicating near excellent agreement. A complete breakdown of the ICC agreement values can be found in Table 1.

Table 1

Breakdown of ICC Agreement by Domain Area

Domain Area	Intraclass Correlation for Average Measures
Ideas/Critical Thinking/Synthesis	.61
Style	.64
Organization	.58
Conventions	.67
Overall Average	.74

Results

     Descriptive statistics are provided of the average student score for each domain, as well as the overall average, for each College and Department participating within this assessment. Comparisons to previous data are also provided for each participating college and department. The College of Education was previously evaluated in 2018-2019, the College of Health Sciences was previously evaluated in 2016-2017, and the College of Science and Engineering Technology was previously evaluated in 2017-2018. A full breakdown of College-level data can be found in Table 2. A breakdown of Department-level data for the College of Health Sciences can be found in Table 3. A breakdown of the Department-level data for the College of Science and Engineering Technology can be found in Table 4. A breakdown for the College of Education is not provided as they only have one undergraduate department, the School of Teaching and Learning.

Table 2

Descriptive Statistics for Student Writing Performance by College

College	Previous AWC Scores			2020-2021 AWC Scores		
	n	*M*	*SD*	n	*M*	*SD*
College of Education						
Ideas/Critical Thinking/Synthesis	266	2.67	0.63	280	2.97	0.65
Style	266	2.69	0.60	280	2.94	0.62
Organization	266	2.80	0.62	280	3.03	0.60
Conventions	266	2.61	0.67	280	2.99	0.64
Overall Average	266	2.69	0.55	280	2.98	0.55
College of Health Sciences						
Ideas/Critical Thinking/Synthesis	261	2.38	0.65	290	2.61	0.66
Style	261	2.27	0.62	290	2.75	0.60
Organization	261	2.36	0.63	290	2.79	0.62
Conventions	261	2.02	0.62	290	2.65	0.62
Overall Average	261	2.26	0.55	290	2.70	0.55
College of Science and Engineering Technology						
Ideas/Critical Thinking/Synthesis	313	2.87	0.69	105	2.88	0.84

	n	M	SD	n	M	SD
Style	313	2.84	0.69	105	2.73	0.76
Organization	313	2.84	0.66	105	2.86	0.80
Conventions	313	2.88	0.70	105	2.75	0.76
Overall Average	313	2.86	0.58	105	2.80	0.72

Table 3

Descriptive Statistics for Student Writing Performance by Department for Health Sciences

	2016-2017 AWC Scores			2020-2021 AWC Scores		
Department	n	*M*	*SD*	n	*M*	*SD*
Family and Consumer Sciences						
Ideas/Critical Thinking/Synthesis	23	2.72	0.60	97	2.61	0.60
Style	23	2.72	0.64	97	2.71	0.57
Organization	23	2.59	0.72	97	2.86	0.55
Conventions	23	2.48	0.55	97	2.56	0.57
Overall Average	23	2.62	0.56	97	2.68	0.49
Kinesiology						
Ideas/Critical Thinking/Synthesis	73	2.18	0.57	22	2.59	0.50
Style	73	2.06	0.50	22	2.59	0.65
Organization	73	2.18	0.49	22	2.50	0.60
Conventions	73	1.81	0.62	22	2.39	0.53
Overall Average	73	2.05	0.46	22	2.52	0.49
Population Health						
Ideas/Critical Thinking/Synthesis	113	2.40	0.68	117	2.50	0.71
Style	113	2.23	0.63	117	2.68	0.65
Organization	113	2.35	0.64	117	2.62	0.68
Conventions	113	1.98	0.57	117	2.65	0.68
Overall Average	113	2.24	0.55	117	2.61	0.60
School of Nursing						
Ideas/Critical Thinking/Synthesis	52	2.48	0.62	54	2.84	0.64
Style	52	2.47	0.57	54	3.04	0.46
Organization	52	2.54	0.68	54	3.14	0.43
Conventions	52	2.23	0.60	54	2.94	0.48
Overall Average	52	2.43	0.55	54	2.99	0.42

Table 4

Descriptive Statistics for Student Writing Performance by Department for Science and Engineering Technology

Department	2017-2018 AWC Scores			2020-2021 AWC Scores		
	n	*M*	*SD*	n	*M*	*SD*
School of Agricultural Sciences						
Ideas/Critical Thinking/Synthesis	64	2.66	0.69	4	2.50	1.00
Style	64	2.82	0.66	4	2.75	0.29
Organization	64	2.72	0.65	4	2.38	0.48
Conventions	64	2.69	0.69	4	2.88	0.48
Overall Average	64	2.72	0.56	4	2.63	0.48
Biological Sciences						
Ideas/Critical Thinking/Synthesis	39	2.73	0.58	14	2.64	0.93
Style	39	2.40	0.64	14	2.61	0.76
Organization	39	2.73	0.60	14	2.68	0.82
Conventions	39	2.63	0.62	14	2.64	0.63
Overall Average	39	2.62	0.50	14	2.64	0.73
Chemistry						
Ideas/Critical Thinking/Synthesis	154	3.03	0.69	9	2.72	0.87
Style	154	3.02	0.66	9	2.28	0.83
Organization	154	2.95	0.67	9	2.67	0.90
Conventions	154	3.09	0.65	9	2.67	1.03
Overall Average	154	3.02	0.58	9	2.58	0.88
Computer Science						
Ideas/Critical Thinking/Synthesis	-	-	-	14	2.36	1.10
Style	-	-	-	14	2.46	0.75
Organization	-	-	-	14	2.36	0.99
Conventions	-	-	-	14	2.25	0.89
Overall Average	-	-	-	14	2.36	0.89
Engineering Technology						
Ideas/Critical Thinking/Synthesis	43	2.74	0.66	14	2.64	0.66
Style	43	2.59	0.64	14	2.25	0.61
Organization	43	2.78	0.58	14	2.43	0.62
Conventions	43	2.64	0.73	14	2.32	0.70
Overall Average	43	2.69	0.53	14	2.41	0.54
Environmental and Geosciences						
Ideas/Critical Thinking/Synthesis	-	-	-	9	3.67	0.35
Style	-	-	-	9	3.39	0.55
Organization	-	-	-	9	3.33	0.56
Conventions	-	-	-	9	3.11	0.55
Overall Average	-	-	-	9	3.38	0.47

Mathematics and Statistics

Ideas/Critical Thinking/Synthesis	13	2.96	0.66	37	3.23	0.53
Style	13	3.00	0.82	37	3.10	0.62
Organization	13	2.69	0.83	37	3.32	0.53
Conventions	13	3.00	0.57	37	3.08	0.60
Overall Average	13	2.91	0.62	37	3.18	0.50

Physics and Astronomy

Ideas/Critical Thinking/Synthesis	-	-	-	4	1.88	0.48
Style	-	-	-	4	1.88	0.25
Organization	-	-	-	4	2.25	0.29
Conventions	-	-	-	4	2.63	0.85
Overall Average	-	-	-	4	2.16	0.21

Note: Comparison data from 2017-2018 for the Departments of Computer Science, Environmental and Geosciences, and Physics and Astronomy are not available.

References

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Appendix

Writing Assessment Rubric

Writing Assessment Rubric

This rubric asks you to identify features of the writing present in the sample. You should *apply the numerical score based on degree of presence* of the characteristic features. The writing features selected for the rubric are those most likely present in any disciplinary writing sample and represent a writing level expected of a senior-level college student.

Legend: N/A = Not Applicable
1 = few features are present
2 = features are not often present
3 = features are often present
4 = features are most always present

CATEGORY	CHARACTERISTIC FEATURES
Ideas/Critical Thinking/Synthesis *The depth of sophistication of thoughts and ideas.* Features may include research, reasoning, evidence, detail, and development (appropriate to the field and genre)	• Central subject or argument of the assignment is easily identified, clearly emphasized, consistent with the evidence, and intriguing • Reasoning is fully developed throughout the assignment with logical examples, details, and evidence where and as appropriate • Assignment contains information that addresses counterarguments, biases, or reader's expectations as appropriate
Style *The choices the writer makes for specific audiences.* Features may include word choice, tone, and sentence length and structure	• Sustained awareness of audience throughout the assignment • Writing tone suits the audience and enhances the assignment's purpose • Sentence structure varies according to the content, purpose, and audience • Sentences are consistently clear and logical • Word choice is appropriate to the writing task
Organization *The coherence of the writing.* Features may include balance and ordering of ideas, flow, transition, and appropriate format (as defined in assignment)	• Text is purposefully organized and substantially developed in a way that clarifies the argument and enhances style • Arrangement of ideas (overall structure) is clear, logical, and compelling as appropriate to the assignment; the reader moves through the text easily • Internal structure is cohesive and coherent; text flows and ideas are clearly and logically connected • Transitions used appropriately • Format is appropriate as defined by the assignment
Conventions *Adherence to standard American edited English.* Features include grammar, punctuation, capitalization, spelling, and documentation.	• Grammar and mechanics support the reader's understanding of the writer's purpose without distracting errors • Documentation style is consistent, if appropriate to assignment • Sources, when appropriate, are effectively integrated into the body of the assignment • Minor errors do not interfere with readability or damage the writer's credibility (as appropriate to the assignment parameters)