

**Office of Academic
Planning and Assessment**

A Report of the Assessment of Written Communication (AWC)

College of Sciences

Spring 2015

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, 2016). The THECB (2016) 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 therefore be used in conjunction with other data to fully understand student knowledge and ability with regards to this Core Learning Objective.

Methodology

In Spring 2015 241 student writing artifacts were collected and scored for the College of Sciences, with 87 coming from the Department of Chemistry and 154 being supplied by the Department of Agricultural Sciences and Engineering Technology. Papers were not received from the Departments of Biological Sciences, Computer Science, Geography and Geology, Mathematics and Statistics, or Physics. Therefore, the scores of the College of Sciences may not be fully representative of the College as a whole; although, they may be representative of those two departments.

Student writing artifacts were scored by faculty and staff volunteers during a two-day scoring session 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 is 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

Intra-class 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), ICCE 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 above .75 as demonstrating excellent agreement. The agreement values for two of the four domains were above .60 (i.e., Ideas/Critical Thinking/Synthesis, Conventions) indicating good agreement, while two of the four domains (i.e., Style, Organization) were below .60 indicating fair

agreement. The agreement value for the overall average score was .72 indicating good agreement. A complete breakdown of the ICC agreement values may 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	.63
Style	.57
Organization	.59
Conventions	.63
Overall Average	.72

Results

Descriptive statistics are provided of the average student score for each domain, as well as the overall average, for the College and Departments participating within this assessment. A full break down of College-level data can be found in Table 2. A breakdown of Department-level data for the College of Sciences can be found in Table 3.

Table 2.

Descriptive Statistics for Student Writing Performance by College

College	n	<i>M</i>	<i>SD</i>
College of Sciences			
Ideas/Critical Thinking/Synthesis	241	2.24	0.70
Style	241	2.32	0.66
Organization	241	2.34	0.67
Conventions	241	2.08	0.68
Overall Average	241	2.24	0.58

Table 3.

Descriptive Statistics for Student Writing Performance by Department

Department	n	<i>M</i>	<i>SD</i>
Agricultural Sciences and Engineering Technology			
Ideas/Critical Thinking/Synthesis Style	154	2.17	0.72
Organization	154	2.22	0.63
Conventions	154	2.25	0.71
Overall Average	154	2.08	0.70
Chemistry			
Ideas/Critical Thinking/Synthesis Style	87	2.36	0.65
Organization	87	2.52	0.66
Conventions	87	2.49	0.57
Overall Average	87	2.07	0.67

References

- Banta, T. W., & Palomba, C. A. (2015). *Assessment essentials: Planning implementing, and improving assessment in higher education* (2nd ed.). San Francisco, CA: Jossey-Bass.
- Cicchetti, D. V. (1994). Guidelines, criteria, and rules of thumb for evaluating normed and standardized assessment instruments in psychology. *Psychological Assessment*, 6, 284-290. doi:10.1037/1040-3590.6.4.284
- Fleiss, J. L. (2003). *Statistical methods for rates and proportions* (3rd ed.). New York, NY: Wiley. doi:10.1002/0471445428
- Kuh, G. D., Ikenberry, S. O., Jankowski, N. A., Cain, T. R., Ewell, P. T., Hutchings, P., Kinzie, J. (2015). *Using evidence of student learning to improve higher education*. San Francisco, CA: Jossey-Bass.
- Shrout, P. E., & Fleiss, J. L. (1979). Intraclass correlations: Uses in assessing rater reliability. *Psychology Bulletin*, 86, 420-428. doi:10.1037/0033-2909.86.2.420
- Texas Higher Education Coordinating Board. (2016). Elements of the Texas Core Curriculum. Retrieved from: <http://www.thecb.state.tx.us/index.cfm?objectid=427FDE26-AF5D-F1A1-E6FDB62091E2A507>

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
<p>Ideas/Critical Thinking/Synthesis <i>The depth of sophistication of thoughts and ideas.</i> Features may include research, reasoning, evidence, detail, and development (appropriate to the field and genre)</p>	<ul style="list-style-type: none"> • 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
<p>Style <i>The choices the writer makes for specific audiences.</i> Features may include word choice, tone, and sentence length and structure</p>	<ul style="list-style-type: none"> • 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
<p>Organization <i>The coherence of the writing.</i> Features may include balance and ordering of ideas, flow, transition, and appropriate format (as defined in assignment)</p>	<ul style="list-style-type: none"> • 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
<p>Conventions <i>Adherence to standard American edited English.</i> Features include grammar, punctuation, capitalization, spelling, and documentation.</p>	<ul style="list-style-type: none"> • 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)