Office of Academic Planning and Assessment

A Report of University and College-Wide AWC Results: 2014-2018

Sam Houston State University

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With the implementation of the new core curriculum at SHSU in 2014 and the adoption of the Texas Higher Education Coordinating Board's (THECB) Core Learning Objectives (i.e., critical thinking, communication, empirical and quantitative reasoning, teamwork, personal responsibility, social responsibility), Sam Houston State University (SHSU) implemented a robust plan for assessing student attainment of these Core Learning Objectives. To help assess student attainment of the written communication component of the broader Core Learning Objective of communication, SHSU implemented the Assessment of Written Communication (AWC) project. At the outset of the AWC project, SHSU set two targets for student written communication performance: first, that the average scores for SHSU would be 2.5 or higher on a 4-point scale; second, that SHSU colleges would meet or exceed benchmarks for student written communication skills that had been established during a 2013 pilot project. This report will highlight both College- and University-level results from the AWC assessment conducted from Fall 2014 to Spring 2018.

Description of Assessment of the Written Communication (AWC) Project

Each academic year, Approximately 500 student writing artifacts are collected and assessed using a locally-developed writing rubric each academic year, a copy of which is provided in the Appendix. 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 four-year period, each academic college at SHSU participated in the Assessment of Written Communication (AWC) and submitted artifacts for scoring. These student artifacts came directly from courses within those colleges or from required capstone projects. Therefore,

the artifacts used within this assessment represented authentic student work (Banta & Palomba, 2015; Kuh et al. 2015).

The student data presented within this report reflect student performance regarding the THECB's Core Learning Objective of Communication Skills (THECB, 2018). The THECB (2018) defines Communication Skills as "effective development, interpretation, and expression of ideas through written, oral and visual communication." Data from this assessment apply directly to 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 1,775 artifacts were submitted from upper division courses within all SHSU colleges over the past four academic years: 2014-2015 - College of Sciences (n=241), College of Education (n=240); 2015-2016 - College of Business Administration (n=320), College of Criminal Justice (n=227); 2016-2017 - College of Humanities and Social Sciences (n=249), College of Health Sciences (n=261); and 2017-2018 - College of Fine Arts and Mass Communication (n=237). Individual college-level reports were created with department-level data included. These reports were given to the colleges following their participation in the AWC project. Copies of these reports are available at the Core Assessment Results portion of the website of the Office of Academic Planning and Assessment (http://www.shsu.edu/dept/academic-planning-and-assessment/assessment/results.html).

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. 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 from the first two raters 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, with the two closest scores being 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 four domains (Ideas/Critical Thinking/Synthesis, Style, Conventions) were good. The Agreement value for Organization was fair, but was approaching good agreement at .59. The agreement value for the overall average score was .73 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	.62
Style	.60
Organization	.59
Conventions	.64
Overall Average	.73

Results

Descriptive statistics are provided of the average student score for each domain, as well as the overall average, for each College participating within the AWC project. For comparison, College- and University-level written communication performance is provided in Table 2. College-level comparison data were not available for the College of Health Sciences, as that College did not exist at the time of the 2013 pilot project. A full break down of College-level AWC data can be found in Tables 3-9. A breakdown of University-wide data can be found in Table 10.

Examining the AWC data revealed that SHSU had mixed success in meeting its targets for student written communication skills. At the University-level, student scores across all four writing domains were lower than those observed in the 2013 Pilot Project. Furthermore, the overall average University scores was a 2.46, which was below the target of 2.50 or higher. When looking at the individual domains of written communication, two domains exceeded (Ideas/Critical Thinking/Synthesis, Organization) the target of 2.50 and two domains were lower (Style, Conventions). The lowest score observed at the University-level was Conventions at 2.31. Conventions was also the lowest scoring domain at the University-level in the 2013 Pilot Project.

Similar results were also seen at the individual college-level. Student scores for only one college, the College of Fine Arts and Mass Communication exceeded their 2013 Pilot Project scores for all domains and for the overall average score. Other colleges saw partial success. Organization scores for both the College of Business Administration and the College of Education exceeded 2013 totals; however, the remaining domains and the overall average scores for both colleges were below their 2013 totals. The scores for all domains, and the overall

average scores, were lower than the 2013 pilots for the Colleges of Humanities and Social Sciences, Criminal Justice, and Science and Engineering Technology.

The College of Fine Arts and Mass Communication was the only college to exceed the target of 2.5 or higher for all four domains of student writing skills and the overall average score. For the College of Humanities and Social Sciences and the College of Education, three of the four domains and the overall average score exceeded the 2.5 target, with only conventions falling below that mark. For the College of Business Administration Organization exceeded the target of 2.5. The scores for all domains and the overall average score did not meet the 2.5 target for the Colleges of Health Sciences, Criminal Justice, and Science and Engineering Technology. The lowest scoring domain for six of the seven colleges was Conventions (College of Criminal Justice, 1.98; College of Science and Engineering Technology, 2.08; College of Business Administration, 2.34; College of Humanities and Social Sciences, 2.38; College of Education, 2.40). The lowest scoring domain for the College of Fine Arts and Mass Communication was Organization at 2.84.

Table 2.
Comparison of 2013 and 2014-2015 Scores for the College of Education

	2013 Pilot (n = 93)	2014-2015 (n = 240)	
Writing Skills Domain	*M*	*M*	*SD*
Ideas/Critical Thinking/Synthesis	2.67	2.60	0.72
Style	2.67	2.61	0.59
Organization	2.73	2.74	0.64
Conventions	2.59	2.40	0.74
Overall Average	2.67	2.59	0.55

Table 3.
Comparison of 2013 and 2014-2015 Scores for the College of Sciences and Engineering Technology

	2013 Pilot (n = 77)	2014-2015 (n = 241)	
Writing Skills Domain	*M*	*M*	*SD*
Ideas/Critical Thinking/Synthesis	2.72	2.24	0.70
Style	2.65	2.32	0.66
Organization	2.40	2.34	0.67
Conventions	2.23	2.08	0.68
Overall Average	2.40	2.24	0.58

Table 4.
Comparison of 2013 and 2015-2016 Scores for the College of Business Administration

	2013 Pilot (n = 60)	2015-2016 (n = 320)	
Writing Skills Domain	*M*	*M*	*SD*
Ideas/Critical Thinking/Synthesis	2.60	2.46	0.62
Style	2.65	2.37	0.55
Organization	2.59	2.63	0.62
Conventions	2.58	2.34	0.61
Overall Average	2.60	2.45	0.50

Table 5.
Comparison of 2013 and 2015-2016 Scores for the College of Criminal Justice

	2013 Pilot (n = 54)	2015-2016 (n = 227)	
Writing Skills Domain	*M*	*M*	*SD*
Ideas/Critical Thinking/Synthesis	2.71	2.32	0.78
Style	2.74	2.19	0.71
Organization	2.69	2.45	0.76
Conventions	2.65	1.98	0.74
Overall Average	2.70	2.23	0.64

Table 6.
Comparison of 2013 and 2016-2017 Scores for the College of Humanities and Social Sciences

	2013 Pilot (n = 71)	2016-2017 (n = 249)	
Writing Skills Domain	*M*	*M*	*SD*
Ideas/Critical Thinking/Synthesis	2.80	2.63	0.63
Style	2.78	2.50	0.59
Organization	2.66	2.59	0.59
Conventions	2.65	2.38	0.58
Overall Average	2.72	2.52	0.52

Table 7.
Descriptive Statistics for College of Health Sciences (2016-2017)

Writing Skills Domain	*M*	*SD*
Ideas/Critical Thinking/Synthesis	2.38	0.65
Style	2.27	0.62
Organization	2.36	0.63
Conventions	2.02	0.62
Overall Average	2.26	0.55

Note. The number of student artifacts was 261. No comparison scores from 2013 were available for the College of Health Sciences

Table 8.
Comparison of 2013 and 2017-2018 Scores for the College of Fine Arts and Mass Communication

	2013 Pilot (*n* = 40)	2017-2018 (*n* = 237)	
Writing Skills Domain	*M*	*M*	*SD*
Ideas/Critical Thinking/Synthesis	2.53	2.95	0.68
Style	2.44	3.01	0.66
Organization	2.40	2.84	0.70
Conventions	2.23	2.94	0.63
Overall Average	2.40	2.93	0.57

Note. The number of student artifacts was 237.

Table 9.
Comparison of 2013 and 2014-2018 University-wide Writing Scores

	2013 Pilot (*n* = 395)	2014-2018 (*n* = 1,775)	
Writing Skills Domain	*M*	*M*	*SD*
Ideas/Critical Thinking/Synthesis	2.68	2.51	0.71
Style	2.67	2.45	0.66
Organization	2.63	2.58	0.68
Conventions	2.57	2.31	0.73
Overall Average	2.64	2.46	0.60

Discussion

Written communication represents an important skill for students to have upon graduation, regardless of student major. Employer surveys, conducted by Hart Research Associates on behalf of the Association of American Colleges and Universities, have consistently shown that employers highly value written communication skills in recent college

graduates. In the 2015 survey, 82% of employers noted that written communication was a key skill for students to have before graduation (Hart Research Associates, 2015). Similar results were seen in the most recent survey from 2018, in which 76% of business executives and 78% of hiring managers indicated that the ability to "communicate effectively in writing" was a "very important quality" (Hart Research Associates, 2018, p. 14). At the same time, employers have raised serious questions regarding student written communication skills. In the 2018 survey only 33% of business executives and 45% of hiring managers believed that "recent college grads were well prepared" with regards to written communication skills (Hart Research Associates, 2018, p. 14).

Although effective student written communication skills have always been a priority for SHSU, the adoption of the THECB's Core Learning Objective of Communication has further emphasized the importance of this student learning objective for the University's graduates. The AWC Project represents the first real systematic effort to examine student written communication skills at the College- and University-levels. The results from the AWC Project showed both strengths and weaknesses in written communication skills of students at SHSU. At the University-level, the average scores for all domains ranged from a low of 2.31 to a high of 2.58, with the domains of Style and Conventions not meeting the target of 2.5 on a 4.0 scale. Furthermore, University-wide scores were lower than those observed in the 2013 Pilot Project. Similar results were also seen at the college-levels, with the writing scores for a number of colleges similarly declining from the 2013 Pilot Project and falling below the target of 2.5.

However, some improvements were also observed in the data from the 2017-2018 AWC project. The College of Fine Arts and Mass Communication was the last college to be evaluated within the first-round of the AWC Project and this College demonstrated the highest levels of

performance of any college to date. It should also be noted that the College of Sciences and Engineering Technology was evaluated again in 2017-2018 as part of the second-round of the AWC Project, with scores greatly improving from those observed in 2014-2015. The scores for all four domains of student writing, as well as the overall average score, were higher that the totals from 2014-2014, as well as the being higher than the scores observed in the 2013 Pilot Project. Furthermore, the 2017-2018 scores for the College of Sciences and Engineering Technology Exceeded the target of 2.5 on 4-point scale. A breakdown of the comparison of results for the College of Sciences and Engineering Technology can be found in Table 11.

Table 10.
Comparison of 2014-2015 and 2017-2018 Student Writing Scores for College of Sciences and Engineering Technology

	2014-2015 (*n* =241)		*2017-2018 (n* = 313)	
Writing Skills Domain	*M*	*SD*	*M*	*SD*
Ideas/Critical Thinking/Synthesis	2.24	0.70	2.87	0.69
Style	2.32	0.66	2.84	0.69
Organization	2.34	0.67	2.84	0.66
Conventions	2.08	0.68	2.88	0.70
Overall Average	2.24	0.58	2.86	0.58

There are multiple possible explanations for the higher scores observed in 2017-2018 for the College of Sciences and Engineering Technology. In 2014-2015, only two departments (i.e., Department of Agricultural Sciences and Engineering Technology, Department of Chemistry) from the College of Sciences and Engineering Technology participated in the AWC assessment. In 2017-2018 five departments participated (i.e., Department of Agricultural Sciences, Department of Biological Sciences, Department of Chemistry, Department of Engineering Technology, Department of Mathematics and Statistics). The broader department-level participation could have potentially produced a more representative, and better quality, sample from that College for evaluation, which in turn produced higher levels of student performance.

Over the four years of the AWC Project, it has been anecdotally observed that student artifacts from detailed, well-designed, and purposeful writing assignments were generally better than those from weaker assignments. So, it is also possible that higher quality assignments were submitted for scoring by the College in 2017-2018.

At the same time, another explanation could be that student writing legitimately improved within the College of Sciences and Engineering Technology. Greater attention has been payed University-wide towards student written communication skills since the adoption of the Core Learning Objectives in 2014, with the effects possibly being seen in improved student performance. If similar increases and levels of student performance are seen for the remaining colleges during the second round of the AWC Project, then a case could be made for improvements to written communication skills campus-wide.

Recommendations

The data collected from 2014-2018 AWC Project do suggest that further efforts are needed to improve the written communication skills of students as they approach graduation, and efforts should continue at the University, college, and department levels to promote these skills. Results from this project also did reveal a clear weakness with the area of Conventions for six of the seven colleges and for the University as a whole. Weaknesses were also observed at the University level, and for several colleges, for the area of Style. These areas, in particular, should be a focus for improvement efforts at all levels of the University.

The Writing-enhanced courses at SHSU continue to be an important intervention for improving student writing skills within students' majors as they approach graduation. Additionally, employers have repeatedly noted a desire for students to take multiple courses requiring significant writing assignments. In a 2015 survey, 81% of employers reported they

would be more likely to hire a student who had taken multiple writing-intensive courses (Hart Research Associates, 2015). Similar results were observed in the 2018 survey, with 82% of business executives and 72% of hiring managers indicating the same (Hart Research Associates, 2018). However, there is evidence from the spring 2016 administration of the National Survey of Student Engagement (NSSE) that students at SHSU are not writing nearly as much as their peers at other institutions. When asked how many papers, reports, or other writing tasks they have been assigned during the current school year, students reported being given fewer assignments of all lengths and writing fewer pages than observed within the comparison groups (Office of Academic Planning and Assessment, 2016).

Therefore, a closer examination of the efficacy of writing-enhanced courses may be warranted. W-course data, in the form of the number of W-courses taken and student GPA in W-courses, are available for all students evaluated through the AWC Project. A follow-up examination of these data could reveal what relationships may exist between W-courses and writing performance at the University-levels and College-levels. Such an examination would align well with ongoing efforts to evaluate the success of the individual College-level writing-enhanced programs and processes.

Anecdotal observations regarding the link between quality student writing assignments and greater levels of student performance have already been noted in this report. From a pedagogical perspective, if students are not being given adequate opportunities to practice their skills through robust assignments, it is harder for students to adequately develop and demonstrate those skills. Assignment prompts have been collected throughout the AWC project and have been used to help provide context for student writing artifacts during scoring. These prompts could be redacted of any faculty identifying information and then more formally evaluated to

determine their quality as a writing assignment. The relationship between quality of assignments and student performance could then be formally evaluated. If data from such an evaluation showed that stronger assignments did produce better student results, then faculty development efforts could be implemented to promote and improve the quality of writing assignments being used in classes of all levels.

Finally, a deeper understanding is needed of how student written communication skills differ by student type and background. Student written communication scores could be examined through the lens of various demographic factors, like race/ethnicity, gender, first-generation status, first-time-freshman/transfer status, and more. If no differences were observed in student written communication skills by these factors, then SHSU could make a strong case for promoting equity and equality in student learning. If differences were observed, then further investigations could be done into the potential causes of those differences and appropriate interventions could be created to help improve student learning for struggling groups. Either way, such information would be important in the University's efforts to further promote the learning and success of all students at SHSU.

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Appendix A
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
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)