REPORT ON THE PILOT ASSESSMENT OF THE COMMUNICATION CORE OBJECTIVE AT UT ARLINGTON

Compiled by the Office of Institutional Effectiveness and Reporting

Introduction

In fall of 2011, the Texas Higher Education Coordinating Board (THECB) made revisions to the Texas Core Curriculum rules (THECB, 2013). These revisions redefined the Core Curriculum through eight foundational component areas (FCA) and six core objectives that includes: Critical Thinking, Communication, Empirical and Quantitative skills, Teamwork, Personal Responsibility, and Social Responsibility. These objectives are to be implemented within core curriculum coursework and assessed to determine the extent of student achievement.

The purpose of the report is to present the findings of the pilot assessment of the Communication Core Objective that was conducted in the summer of 2014 at The University of Texas at Arlington (UT Arlington). The pilot assessment was intended to evaluate the effectiveness of the planned assessment activity. UT Arlington is implementing the assessment of the core objectives on a three-year cycle. As per the planned assessment schedule, the Communication core objective is the first of these to be assessed using student work from the Communication and Mathematics FCAs (Table 1).

Table 1. Communication Core Objective Assessment Schedule

Foundational Component Area	Fall 2014	Spring 2015	Fall 2015	Spring 2016	Fall 2016	Spring 2017
Communication	X					
Mathematics	X					
Life and Physical Sciences			X			
Language, Philosophy & Culture			X			
Creative Arts			X			
American History					X	
Government/Political Science					X	
Social and Behavioral Sciences					X	

Methodology

The Communication objective was assessed by scoring samples of student written work against a rubric. Faculty raters from across the University were involved in the assessment process. The remainder of this section of the paper contains a description of the student work sample, the assessment instrument, and the assessment process.

Sample

The student work samples consisted of 5-10 page papers written in fall 2013 for ENGL 1302. The Director of the First Year English (FYE) program selected eight sections of ENGL 1302 from which to draw the student work samples. The selected sections represent the students that generally enroll in the ENGL 1302. The Office of Institutional Effectiveness and Reporting (IER) with assistance of the FYE Director collected 129 student work samples and IER redacted any faculty and student identifying information.   Nearly 90% of the student work samples were produced by freshmen and sophomores.

Assessment Instrument

The assessment instrument used in the pilot assessment was a rubric adapted from the Association of American Colleges and Universities' (AAC&U) Written Communication Valid Assessment of Learning in Undergraduate Education (VALUE) Rubric by FYE and IER (Figure 1). The rubric is categorized into five dimensions and uses a 4-point scale. The dimensions of the rubric are context and purpose, organization and structure, content development, sources and evidence, and control of syntax and mechanics. Each point for each dimension of the rubric is accompanied by a description of the expected quality of work within the dimension.

Communication Rubric

Criteria	Levels of Achievement			
	Capstone 4	**Milestone 3**	**Milestone 2**	**Benchmark 1**
Context and Purpose	Demonstrates a thorough understanding of context, audience, and purpose and a clear focus on the assigned task.	Demonstrates adequate consideration of context, audience, and purpose and is responsive to the assigned task	Demonstrates awareness of context, audience, and purpose and to the assigned task.	Demonstrates minimal attention to context, audience, purpose, and to assigned task.
Organization and Structure	Demonstrates detailed attention to successful organization, content presentation, formatting, and stylistic choices.	Demonstrates consistent use of organization, content presentation, formatting, and stylistic choices.	Follows expectations for basic organization, content presentation, formatting, and stylistic choices.	Attempts to use a consistent system for basic organization and presentation.
Content Development	Uses appropriate, relevant, and compelling content to illustrate mastery of the subject, conveying the writer's understanding, and shaping the whole work.	Uses appropriate, relevant, and compelling content to explore ideas within the context of the discipline and shape the whole work.	Uses appropriate and relevant content to develop and explore ideas through most of the work.	Uses appropriate and relevant content to develop simple ideas in some part of the work.
Sources and Evidence	Demonstrates skillful use of high quality, credible, relevant sources to develop ideas. Writer contextualizes sources and credits sources throughout the essay an in a works cited/bibliography page or other appropriate source documentation format.	Demonstrates consistent use of credible, relevant sources to support ideas. Writer clearly identifies sources in essay and in a works cited/bibliography page or other appropriate source documentation format.	Demonstrates an attempt to use credible and/or relevant sources to support ideas. Writer generally identifies sources in essay and in a works cited/bibliography page or other appropriate source documentation format.	Demonstrates a basic attempt to use sources to support ideas. Writer does not consistently credit borrowed material to its source in essay and/or in a works cited/bibliography page or other appropriate source documentation format.
Control of Syntax and Mechanics	Uses graceful, virtually error-free, language that skillfully communicates meaning to readers with clarity and fluency.	Uses straightforward language with minimal errors to convey clear meaning to readers.	Uses language that conveys general meaning to readers although the language may contain some errors.	Uses language that sometimes impedes meaning because of errors in usage.

Figure 1. Communication Rubric

UNIVERSITY OF TEXAS ARLINGTON

Association of American Colleges and Universities

Raters, Rater Calibration, and Scoring

The student work samples were rated by twelve faculty members from six of the nine schools and colleges within the University (Table 2). The faculty were prepared prior to the actual scoring of student work samples through a rater calibration process. The FYE Director selected nine out of the 129 samples of student work that were used as anchor papers. During the calibration process, these anchor papers facilitated discussion that lead to a common understanding of written communication quality based on the dimensions of the rubric.

Table 2. College/School Breakdown of Faculty Participants

College/School	# of Raters Participated
Architecture	0
Business	1
Education and Health Professions	1
Engineering	2
Liberal Arts	3
Nursing	0
Science	1
Social Work	4
Urban and Public Affairs	0
Total Raters	**12**

The actual assessment process involved two faculty members rating each paper on each of the six dimensions of the rubric. If the scores from the two faculty raters were the same or within two points of each other, then the score was averaged. For example if Rater A scored context and purpose as a 2 and Rater B scored context and purpose as a 4, then the score for that dimension was 3. If the scores from the two raters were greater than two points different (i.e. 1 and 4), then a third rater was used. Out of the three scores, the two that were closest to each other were averaged together. For

example, if Rater 1 gave a score of 1, Rater 2 gave a score of 4 and Rater 3 gave a score of 2, then scores

1 and 2 were averaged for a final score of 1.5. Figure 2 is the rater score sheet.

Figure 2. Rater Score Sheet

	Rater # _____				Rater # _____			
Context and Purpose	4	3	2	1	4	3	2	1
Organization/Structure	4	3	2	1	4	3	2	1
Content Development	4	3	2	1	4	3	2	1
Sources and Evidence	4	3	2	1	4	3	2	1
Control of Syntax and Mechanics	4	3	2	1	4	3	2	1

For Use Only if a Third Rater is Needed

	Rater # _____			
Context and Purpose	4	3	2	1
Organization/Structure	4	3	2	1
Content Development	4	3	2	1
Sources and Evidence	4	3	2	1
Control of Syntax and Mechanics	4	3	2	1

Results

One hundred and twenty written student work samples were assessed. The bulk of the scores

for each dimension fell within Milestone 2 and Milestone 3. Table 3 contains the score frequencies for

each dimension. The mean values for the each of the dimensions ranged from 2.67 to 3.05. Table 4

contains the mean values for each dimension. Since the purpose of this pilot assessment was to

evaluate the effectiveness of the assessment process, results were not analyzed except to determine the extent to which the assessment process produced results that would be expected, which is the case.

Table 3. Score Frequencies

Written Communication Rubric Dimension	Score Frequency (Percent)			
	1	2	3	4
Context and Purpose	45 (37%)	61 (51%)	14 (12%)	0 (0%)
Organization and Structure	27 (23%)	71 (59%)	22 (18%)	0 (0%)
Content Development	24 (20%)	65 (54%)	29 (24%)	2 (2%)
Sources and Evidence	27 (23%)	56 (47%)	35 (29%)	2 (2%)
Control of Syntax and Mechanics	26 (22%)	70 (58%)	23 (19%)	1 (1%)

Table 4. Mean Scores and Standard Deviation

Written Communication Rubric Dimensions	Means (n=120)	Standard Deviation
Context and Purpose	3.05	.821
Organization and Structure	2.80	.759
Content Development	2.68	.768
Sources and Evidence	2.67	.840
Control of Syntax and Mechanics	2.83	.741

Inter-rater Agreement

In order to evaluate the effectiveness of the assessment process, inter-rater agreement analysis was conducted to see how frequently the two raters agreed on scoring. The inter-rater agreement level was determined by calculating the intra-class correlation coefficient (ICC). Commonly accepted guidelines were used to interpret the ICC results whereby .40 to .74 were considered fair to good inter-rater agreement (Grenko, Abendroth, Frauenhoffer, Ruggiero, and Zaino, 2000).

ICC was calculated overall as well as for each of the five dimensions. The overall ICC value was .580. The ICC values for four out of the five dimensions, including Context and Purpose, Content Development, Sources and Evidence, and Control of Syntax and Mechanics, indicated fair to good inter-rater agreement. Organization and Structure was the only dimension that fell outside the fair to good inter-rater agreement range with a value of .388. Values for each dimension can be found in Table 5.

Table 5. ICC Values by Dimension

Dimension	ICC
Context and Purpose	.620
Organization and Structure	.388
Content Development	.571
Sources and Evidence	.643
Control of Syntax and Mechanics	.530

IER continually explores assessment quality and is in the early stages of using the Multi-Faceted Rasch Model (MFRM). This model is more robust because it takes into account more factors related to the student abilities, the raters' behavior, and the instrument for assessment. A preliminary analysis of the results showed that raters' severity or leniency in their scoring was within an acceptable range and the rubric's five dimensions seemed to function as designed.

Summary

The pilot assessment was an overall success and has proven to be an effectiveness model to use in future assessments of core objectives. One issue specific to the assessment of written communication did emerge and that is the challenge of rater consistency for the Organization and Structure dimension. A solution to this challenge may be to note inter-rater agreement earlier in the scoring day, so that calibration interventions can be implemented. Monitoring inter-rater agreement in the first part of a scoring day is likely to be a lesson that can be applied to all future scoring days

regardless of the Core Objective. IER will continue to evaluate the effectiveness of core objective

assessments with each scoring day and will implement improvements to the process as needed.

References

Grenko, R. T., Abendroth, C. S., Frauenhoffer, E. E., Ruggiero, F. M., & Zaino, R. J. (2000). Variance in the

      interpretation of cervical biopsy specimens obtained for atypical squamous cells of

      undetermined significance. *Anatomic Pathology, 114*, 735-740.

Texas Higher Education Coordinating Board. (2013). Introduction and History. In *Core Curriculum End*

      User Manual: Workforce, Academic Affairs and Research. (pp. 2-3).