

INNOVATING THE ASSESSMENT OF ORAL COMMUNICATION – FALL 2017

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The purpose of this assessment project was to fulfill UTA's requirements to the Texas Higher Education Coordinating Board for measuring student attainment of *Oral Communication*, a Texas Core Curriculum objective. We used the Oral Communication VALUE Rubric from the Association of American Colleges and Universities (AAC&U) in an undergraduate research setting to assess *Oral Communication* in the presentations by the students as they stood next to their posters and explained their research project in a short 3-5 minute talk. Typically, *Oral Communication* is a challenge to measure for Texas Core Curriculum requirements because it often involves video-recording the presentations. In this case, the presenters were available at a research showcase and a team of raters simply asked the students to "tell me about your research," as is the custom at poster presentations. The specific aim of this pilot was to evaluate the rubric in a research showcase setting. Hypothesizing that students who participate in undergraduate research may attain above average *Critical Thinking* skills, but not necessarily *Oral Communication* skills, a second aim was to measure their *Oral Communication*.

Posters presented during the UTA Undergraduate Research Showcase, October 17-20, 2017 were chosen as a convenience sample for this pilot project. Program participants from the Undergraduate Research Opportunity Program (UROP), Louis Stokes Alliances for Minority Participation (LSAMP) and the Undergraduate Research Assistant Program (UGRAP) formed the student sample. A team of two raters, experienced in the use of the Oral Communication VALUE Rubric met at the poster showcase. Their first task was to discuss the rubric for calibration purposes by listening to a presentation by one of the students describing their research. Following the presentation, rating began. The two scored the presentation and shared their scores for the five rubric dimensions. After adequate consensus was reached, rating commenced. Raters listened to presentations and completed ratings on about half of the available posters ($n = \sim 20$). Rubric scores ranged from one to four, with higher scores indicating more *Oral Communication* skills. The posters covered six academic disciplines: Nursing, Biology, Mathematics, Physics, Chemistry, and Computer Science Engineering. In addition, some posters explored intersections in disciplines (e.g., Nursing with Computer Science and Biology with Chemistry).



Results

Analyses examined inter-rater agreement (*Fleiss Kappa*, see Table 1). Interclass correlation coefficients (ICC) indicated that for four of the five dimensions, agreement was excellent (*Range* = 0.83 to 0.95). The agreement for one dimension, Delivery, was in the moderate to good range (e.g., between .41 and .74). Next, the scores from the two raters were averaged to obtain a mean score for each presentation. As the AAC&U considers a score of one as indicating that minimum benchmarks were met, these scores suggest that the student presenters in this sample reflected higher than average *Oral Communication* attainment.

Table 1 Analytics for Oral Communication VALUE Rubric dimensions

Dimensions	ICC	Mean	SD
Organization	0.95	3.25	0.88
Language	0.93	3.25	0.76
Delivery	0.59	3.08	0.58
Supporting Material	0.83	3.42	0.49
Central Message	0.93	3.25	0.76

DISCUSSION

The ability of a researcher to demonstrate *Oral Communication* increases others understanding of the project and their application of the results. It is defined as: “... a prepared, purposeful presentation designed to increase knowledge, to foster understanding, or to promote change in the listeners' attitudes, values, beliefs, or behaviors.” (AAC&U, 2009). In order to test that definition within research projects, this pilot undertook the measurement of *Oral Communication* in research posters prepared by undergraduates enrolled at UTA. Analyses suggest that the two specific aims for this pilot project were met: 1) the Oral Communication VALUE Rubric aligned well with the poster content and the raters achieved excellent agreement in scoring with the rubric, and 2) contrary to hypothesis, the students attained above average scores.

The current pilot has a few limitations, two of which were sample size of available posters and number of rater pairs. In addition, some students were only involved in research with a faculty mentor for a single semester. This scope was reflected in the *Organization*, *Supporting Material*, and *Central Message* of the presentation. As such, some of the poster presentations focused on the “research process” but could only report that results were forthcoming and did not go into a great deal of depth in the areas of evidence, influence of context and the student’s conclusions. While the “research process” posters achieved lower scores for some dimensions of the Critical Thinking VALUE rubric that was not the case with the Oral Communication VALUE Rubric. The scores for the posters that described the full “research project” and “research process-only” posters were more dependent on the presenter than the content on the poster. The lower rater agreement on the Delivery dimension possibly reflects individual differences between raters (hard vs soft at awarding points). While this is a common phenomenon, an analytical approach such as Multi-faceted Rasch Modeling with a larger sample may help identify whether this is a significant problem.

CONCLUSION

The Oral Communication VALUE rubric aligned well with the content in poster presentations of research projects. This pilot supports the use of the rubric to observe and measure levels of *Oral Communication* at an undergraduate research showcase. Future research should examine the construct validity of the five dimensions of the rubric to see how well they describe *Communication*, a skill that is highly sought-after by hiring managers in evaluating candidates for employment.