

Journal of Business & Leadership: Research, Practice, and Teaching (2005-2012)

Volume 3
Number 1 *Journal of Business & Leadership*

Article 10

1-1-2007

Rubrics, Writing Improvement, and Assessment: Gaining Leverage For Business Programs

Anthony Tocco
Rockhurst University

Craig Sasse
Rockhurst University

Tumer White
Rockhurst University

Follow this and additional works at: <https://scholars.fhsu.edu/jbl>



Part of the [Business Commons](#), and the [Education Commons](#)

Recommended Citation

Tocco, Anthony; Sasse, Craig; and White, Tumer (2007) "Rubrics, Writing Improvement, and Assessment: Gaining Leverage For Business Programs," *Journal of Business & Leadership: Research, Practice, and Teaching (2005-2012)*: Vol. 3: No. 1, Article 10.

DOI: 10.58809/CJSE8499

Available at: <https://scholars.fhsu.edu/jbl/vol3/iss1/10>

This Article is brought to you for free and open access by the Peer-Reviewed Journals at FHSU Scholars Repository. It has been accepted for inclusion in *Journal of Business & Leadership: Research, Practice, and Teaching (2005-2012)* by an authorized editor of FHSU Scholars Repository. For more information, please contact ScholarsRepository@fhsu.edu.

RUBRICS, WRITING IMPROVEMENT, AND ASSESSMENT: GAINING LEVERAGE FOR BUSINESS PROGRAMS

Anthony Tocco, Rockhurst University
Craig Sasse, Rockhurst University
Turner White, Rockhurst University

With business schools receiving pressure to demonstrate assurance of student learning in critical skills like communication, it becomes imperative for programs to gain leverage from course activities that can both provide formative feedback and aid in assessment. The focus of this paper is on the grading rubric; first, developing a conceptual model of how it might be used for course embedded assessment to achieve both writing improvement and assessment. Additionally, this paper will share a case study, including some tentative conclusions, of adopting a common rubric and its use in a particular course.

INTRODUCTION

Students' ability to write well continues to be a primary concern by both employers and universities (e.g., College Entrance Examination Board, 2004; Wardrobe, 2002). Surveys indicate, furthermore, that there is a significant "readiness gap" of employer expectations for writing skills and the actual skills of high school (81% not ready) and college (47% not ready) graduates (Conference Board, 2006). For the past few decades, many colleges have instituted writing across the curriculum (WAC) programs to address both the interdisciplinary nature of writing skill and the growing need to develop effective student writers across the undergraduate or graduate program and not just through a single communications course. These WAC programs have mostly dealt with developing writing assignments in various courses in the curriculum and less with assessment of specific skills (e.g., organizing ideas in writing) that are often identified as part of degree programs.

In addition to the push by employers, accrediting bodies such as American Association of Collegiate Schools of Business (AACSB) continue to require business schools to demonstrate learning of key outcomes. In addition to assessing learning, schools, including professional programs like business, are now required to develop assessment processes that lead to continuous improvement - improvement of teaching and learning - and processes that document assurance of student learning. With many of the important outcomes such as communication skills requiring judgment-based evaluation, business schools are seeking ways to assess student learning beyond objective measures like tests (in-class and standardized).

Business schools face the dual challenge of graduating students who write well and developing ways to demonstrate that achievement (i.e., through assessment). Often these two things - teaching writing and assessing writing achievement - have been done separately (Varner & Pomeroy, 1998; Kryder, 2003). That is, faculty have concentrated on developing assignments and grading schemes that focus on writing skills for that course, while programs, via program directors or administrators, focus on assessment by use of summative tools such as standardized tests or surveys.

One tool for achieving leverage for the two related but distinct outcomes of writing skill improvement and performance assessment is the grading rubric. The rubric, which unpacks a specific target skill such as written communication into discrete criteria, is a relatively new tool in the area of post-secondary business education. In order to create leverage, however, a business school must identify common criteria that are used across the program, not just in a single course. In this article we will: 1) explore a model for bridging the formative (student writing development) and the summative (assurance of student learning) goals now inherent in business education; 2) briefly review the external forces driving the dual goals of writing skill improvement and assessment; 3) review the literature related to rubrics and their role in instruction, feedback, and assessment; and 4) share our own school's case study for implementing program level assessment using a common rubric and the authors' observations from early implementation of a specific rubric.

Current Environment and Background

The heightened concern for writing skills comes from a broad range of stakeholders, including employers, accrediting organizations, and governing bodies. First, employers over the last two decades have increasingly signaled a need for good communication skills even over specialty or discipline knowledge (Ashbaugh, 1994). Richard Cavanaugh, President and CEO of the Conference Board, concluded from a Conference Board report surveying 431 human resource officials, "It is clear from the report that greater communication and collaboration between the business sector and educators is critical to ensure that young people are prepared to enter the workplace of the 21st Century" (The Conference Board, et al, 2006). A report in 2004 by the National Commission on Writing indicates that business spending on remedial writing training for employees amounted to \$3.1 billion annually (2004). The director of the Business Writing Center, Craig Hogan, concludes, "The reason businesses have such a problem with poor writing is that most don't have standards for writing based on best practices" (2006: 1).

Further, business schools themselves, along with their accrediting body, AACSB, have placed major emphasis on the

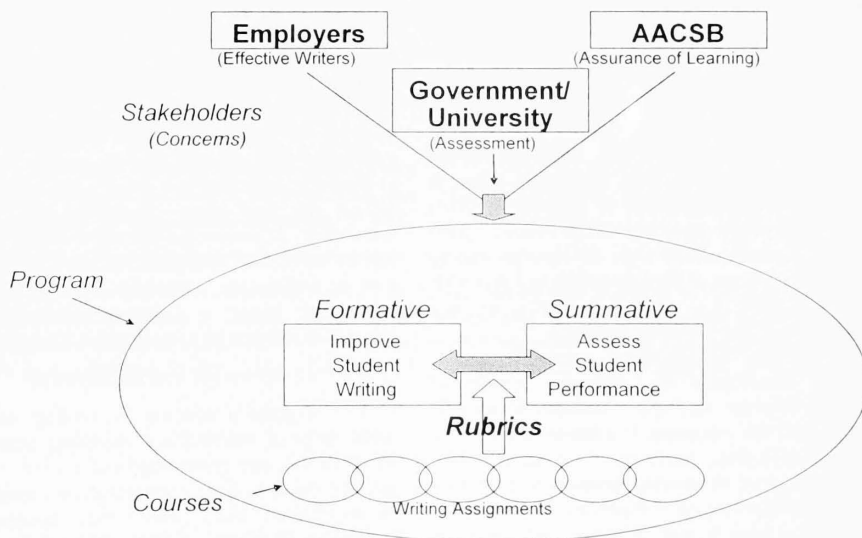
development of effective communication skills (Borxi & Mills, 2001). A survey of department chairs in business schools in six business disciplines confirmed the importance of business communication skills in each respective discipline. Written communication skills are most critical to graduates' success implying greater emphasis on writing and all communication skills by business faculty (Wardrope, 2002).

In addition, accrediting bodies and government agencies are putting pressure on schools to demonstrate student learning. In response, schools have stepped up their assessment efforts by identifying and targeting specific program outcomes. Yet, business schools are still grappling with how they can effectively use course based assessment tools to help them meet program imperatives related to assurance of learning. For instance, many of the writing across the curriculum programs have tended to focus efforts on individual courses; they have also tended to focus on writing improvement and not assessment. Given the formative needs of students, assessment

programs that can marry the growing requirements for assurance of learning with student writing development will have the most traction with faculty.

One promising development over the last few years has been course-embedded assessment (CEA), which seeks to leverage things faculty and students already do (graded assignments) to gain insight on program level learning outcomes (Sasse, Daley, & Bassett, 2005). CEA simplifies data gathering for program assessment and provides data that can help faculty learn about their assignments and courses in a way that facilitates continuous improvement. Importantly, CEA, through use of rubrics, allows for feedback mechanisms that should support student development and learning. The relationship among stakeholders and school process (both program and course level) is illustrated in figure 1. Specifically, rubrics that employ some kind of common criteria and standards provide the potential to merge both student learning and program assessment.

Figure 1: Drivers for Using Rubrics to Achieve Assessment and Learning Goals



Rubrics as a Tool for Instruction and Assessment

The term rubric has become the term used for any "scoring tool that lays out the specific expectations for an assignment" (Stevens & Levi, 2005: 3). Rubrics can take on different forms, but they usually always include categories or criteria that describe different parts of an assignment or skill. For example, a category may assess coherence of writing for an assignment. Typically, rubrics are created for a specific assignment in a specific course. Walvoord & Anderson (1998) assert that their primary trait analysis (PTA) rubrics are assignment specific, with the assignment driving the specific criteria identified for assessment. Thus, rubrics are commonly developed by faculty (sometimes with the help of faculty developers or instructional designers) to use specifically for their courses.

Although some argue against mixing assessment with grading (e.g., Varner & Pomeroy, 1998), rubrics provide a tool for assessing achievement of learning goals and grading of student work. In fact, using rubrics on assignments such as writing allow for instructors to be more efficient and consistent in grading (Stevens & Levi, 2005; Walvoord & Anderson, 1998). Also, the use of rubrics, with criteria and standards explicitly defined, provide several grading advantages according to Walvoord & Anderson (1998), such as, saving time in explaining grades, clearly defining expectations for performance, and bringing objectivity to grading decisions.

Rubrics and Feedback

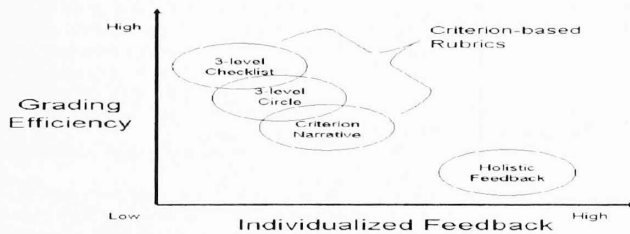
It has been a common practice for faculty to provide

feedback on student writing assignments in order to help students learn. Without a rubric, instructors typically employ a holistic scoring method. In this method, there is no categorical breakdown of the task; instead the rater provides an overall impression of the writing piece (Varner & Pomeroy, 1998). This type of feedback can tend to be richer and more individualized but less efficient as the instructor often repeats comments on common issues in the narrative portion of each individual's feedback (Stevens & Levi, 2005).

Rubrics can also be designed to give feedback. The level of feedback depends on the rubric. Stevens and Levi (2005) identify three types of criterion-based rubrics that vary according to the level of individualized feedback to the students. The most regimented rubric is a checklist, where behaviors are identified a priori, with the instructor simply checking the appropriate boxes to identify level of achievement. The second type is a circle word rubric, where

each standard level has a narrative description of the performance expected. Evaluators can circle the words that apply to a specific paper. In both the checklist and circle word rubric, at least 3 levels of performance (i.e., standards) are laid out. The third and least rigid (but least efficient in terms of grader's time) is the criterion narrative. Here the exemplary performance is described for each criterion, but no other levels are described; instead room is given for individual comments for each of the criterion. In general, in assessing the different rubrics, a trade-off occurs between two dimensions: grading efficiency and individualized feedback. That is, the rubrics that make grading the easiest (i.e., fastest) will provide less individualized feedback while those that provide more flexibility for individualized feedback tend to be more time intensive. In the case of the three types of rubrics described here, they are all more efficient than holistic feedback methods. Figure 2 shows the relationship.

Figure 2: Types of Rubrics - Relationship Between Grading Ease and Amount of Personal Feedback



The effectiveness of rubrics as a feedback tool can be influenced by factors related to the recipient, the content, and the context of the feedback. Taras (2003) concluded from her study that compared the impact of self-assessment feedback vs. both self-assessment and instructor feedback that recipients held strong beliefs that performance (counted by a grade) should correlate with their effort. This finding argues that feedback should be separate from the grade; in her study, grades were given after the feedback, not at the same time.

The more personal and individualized the feedback, the more impact it has on the learner (Brinko, 1993). Brinko adds that information given in the grammatical second person is more effective, which would seem to argue against checklist rubrics. Furthermore, according to Brinko (1993), feedback is more effective when it allows for response and interaction and when it relates to goals defined by the recipient. Many studies on feedback convey the importance of involvement by the recipient, including active self-assessment processes (Taras, 2003; Andrade, 1999).

In terms of the content, feedback tends to be more effective when it is concrete and conveyed in a variety of modes (Brinko, 1993). Andrade (1999) looked at the effect a rubric had on student writing of essays. Using three essays a month apart, her treatment group was given and had explained an instructional rubric while her control group did not use a rubric. While the treatment group showed a moderate advantage over the controls on the second essay, there was no difference found on the first and third. Andrade (1999) did find that in the end of

the course questionnaire the students that received the rubric were likely to refer to the rubric in explaining their writing and how it was evaluated while the control students did not have any concrete idea of how they were evaluated. Also, while the controls tended to focus specifically on mechanics (spelling, punctuation, and neatness), the rubric students reported these criteria and many more. Concluded Andrade, "It appears that instructional rubrics have the potential to broaden students' conception of good writing beyond the recognition of mechanics to include qualities such as word choice and voice and tone" (1999: 9).

Rubrics and Assessment

Many have advocated that writing development and instruction must take place not only in English and business communication courses, but most or all courses in a program. The construct of writing-across-the-curriculum (WAC) has been around for a while and refers to the explicit curricular effort to assign student writing in many, if not all, courses in the program. While one of the rationales for WAC programs is its usefulness as a learning tool (Emig, 1994; Hansen, 1993), another reason is that writing is a developmental skill that takes time and experience to master. It is insufficient to lay communication skill development to one or a few courses. As noted by Carnes et al., "The value of the writing across-the-curriculum approach is to provide students with the opportunity to build on and reinforce communication skills" (2001: 216).

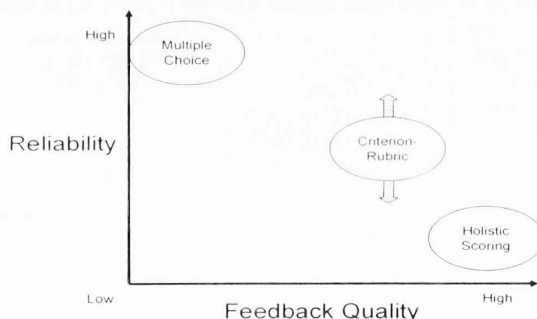
In order for students to make the most of WAC, they must get consistent and quality feedback of their work. Receiving both consistency and quality (i.e., rich and specific) in the evaluation process is not always easy, especially for performance-based assessments. The most consistent or reliable form of assessment is some sort of test that has correct answers (e.g., multiple-choice). For writing, only authentic assessments are appropriate, because they are direct measures of student performance (Wiggins, 1990).

The alternative to standardized systems is holistic scoring (Varner & Pomeroy, 1998). The advantage of this method is that it deals with the nuances of a written piece and allows for the various ways to achieving effectiveness. As Varner & Pomeroy (1998) note, use of holistic scoring requires significant training of the raters to achieve any kind of inter-rater reliability. Some argue that achieving reliability is an inauthentic standard, as in the real world two managers will

likely give different feedback on one piece of writing (Moss, 1994). Holistic assessments tend to be course, if not assignment specific, which is problematic for any effort to combine the goal of program assessment with student feedback.

In the work featured in this case study, the authors chose to adopt criterion-based rubrics, which hold the promise of allowing effective (high quality and reliable) assessments across a number of assignments and courses. Although holistic scoring methods are ideal in terms of personal feedback provided, they tend, absent significant training, to be unreliable with multiple raters. Figure 3 shows how criterion-based rubrics might bridge the gap between the more reliable measures and the richer holistic measures. The following case study describes a process aimed at using rubrics to gain some of the effectiveness of holistic measures while still allowing for consistency needed across a program to achieve both assurance of student learning and student learning itself.

Figure 3: Bridging the Gap Between Quality and Reliability - The Criterion-Based Rubric.



Introducing Rubrics: A Case Study

The School of Management for a Midwestern University in 2003 formally adopted the use of course-embedded assessment (CEA) as an acceptable data source for program assessment. This was part of a university-wide assessment initiative supporting faculty development specific to use of course-embedded assessment. This faculty development consisted of a 3-day workshop (beginning in the summer of 2003) that included a CEA project. A CEA project was faculty generated and usually focused on a specific course assignment or course project. Two of the key parts of the CEA workshop were assisting faculty in creating learning objectives and developing rubrics to assess some or all of these objectives.

Before describing the process followed to get to a common rubric for the MBA program, it is important to point out that the School approached course-embedded assessment from primarily a faculty development perspective instead of a way to collect program assessment data. That is, no specific program measures were assigned to faculty. Instead, faculty through their own initiative and often spurred through the support mechanism of the CEA workshops, worked to embed course assessments as part of good course design (develop learning objectives and match them with appropriate measurement devices). The business school did, however, have in place

curriculum assessment committees based on programs that provided a forum for faculty-driven CEA work to percolate up for program assessment. Thus, program assessment and use of CEA was largely a bottom-up process, driven by the faculty working at an individual course level and promulgated through the faculty-led curriculum and assessment committees (CACs). This process is itself a work in progress, but has had impact in building faculty competence in using pedagogical tools like learning outcomes and rubrics.

One of the authors attended one of the first university-sponsored CEA workshop in 2004 and based his project on developing a set of common criteria for the MBA program to adopt for writing skills. (Typically, projects were course based but this was a rare project that looked beyond the course). The goal was to engage faculty members of the MBA assessment committee in a process of evaluating student artifacts and using this process to develop specific criteria (task and skill components) and standards (description of relative performance levels) that could be used for assessment of student writing. MBA faculty assessed a sample of student artifacts and determined the critical writing skill criteria that increased student proficiency by the time all students graduate.

Following the completion of this process and with a rubric in place by 2005, another faculty member adopted the rubric in

his accounting/finance topics course. He had not used a rubric before and was interested in finding out if the rubric helped students and how well (accurately and consistently) he used the rubric. Appendix A shows the rubric used; criteria and standards for all the categories except content came from the work of the program assessment committee as described earlier. This rubric fits closely with the three-level, circle words rubric described by Stevens and Levi (2005).

For the accounting/finance topics course (spring 2006), two interventions assisted students' use of the rubric. First, students were introduced to the rubric the first class period in

conjunction with describing the writing assignment. Second, consistent with several studies on feedback (e.g., Andrade, 1999), students were asked to self assess and reflect based on the instructor's assessment of their first set of papers. In addition to using ten minutes for students to study the rubric markings and written comments on their papers, the instructor requested that each student identify at least one area of skill development for the next set of papers. The students were instructed to base this reflection on the grading rubric described and used by the instructor. Table 1 provides a summary of the course interventions.

Table 1: Finance Topics Course Rubric Interventions (Spring 2006)

Time	Event(s)	Comments
First Class Period	<ul style="list-style-type: none"> Introduce assignment Go over grading rubric Provide examples of "A" papers 	The assignment was two sets of 3 papers. The first set of papers were turned in at mid-term; the second set turned in at end of semester. Students chose topics based directly on content covered in course.
8 th Class Period	First set of papers collected in class	Instructor graded all papers using rubric and makes comments on papers.
9 th Class Period	<ul style="list-style-type: none"> Papers returned to students. In class, students are asked to correlate their grades on the papers, scores on their rubric, and written comments given by the instructor. Students are assigned a one-paragraph reflection on 1-2 skills they will try to improve for their next set of papers. 	Feedback from instructor to students to make students aware of strengths and weaknesses related to their writing. The one paragraph assignment was to reinforce to the students the comments from the instructor and emphasize the importance of the rubric.
10 th Class Period	The 1-2 paragraph reflection is collected.	Students recognize the areas that need improvement so that they can improve skills on the second set of papers.
Next to last class period	Second set of papers collected	Instructor grades all papers using rubric and makes comments on their papers.
Last class period	All papers were returned to students. Instructor stressed the importance of writing and asked that students compare the first set of papers and rubrics with the second set.	Students were asked to compare their first set of papers with their second set of papers. Students could see how changes in their grades (up or down) were tied to the circled scores on their rubric and written comments on their papers.

In this first iteration of the rubric-assisted course, no empirical study was attempted. The authors did, however, collect data to test the rubric and try and understand its impact on students. In addition to the assessment done by the course instructor (who also assigned grades based on the rubric), two business communication professors who had already been using rubrics took clean copies of the first set of papers and assessed them independently of the instructor using the same rubric. The two independent assessors used a two-step process: 1) they evaluated three randomly selected paper sets and then met to mediate a consensus for the papers, and 2) after mediating and discussing the criteria they independently assessed the remaining 21 papers. The assessments of the two business communication professors along with those of the instructor were compiled onto a spreadsheet so comparisons could be made. The next section shares some tentative conclusions from this study and what questions are worthy for further investigation.

Discussion

With increasing pressure on academic programs to graduate students who can write well and equal pressure for schools to demonstrate assurance of learning, the authors sought to bridge individual course assignments and evaluations to program level objectives related to written communication. This desire was driven in part by the observation that many students were

apparently unaware of their specific writing problems. Would it be possible to help them identify areas for development if common criteria were adopted and consistently applied to student writing across the program? In this initial experience and reflection the authors propose a model that envisions the criterion-based rubric achieving the dual goals of performance improvement and accurate assessment.

While the proposition that the rubric can become an effective multi-purpose tool is still untested, the first iteration of the use of the rubric revealed several key things:

1. Using the rubric to make judgment-based assessments of student writing is a useful tool for the course instructor. As noted earlier, the instructor had previously commented on papers in a holistic way, without use of any grading form or rubric. The rubric helped him with the evaluation and feedback process in several ways. First, it helped him identify and define common feedback points. While embedded comments were still written on the papers, the rubric was used as a guide for pointing out important writing features. Second, the rubric made it easier for the instructor to point out writing criteria to students. The instructor was able to give students these criteria before the assignment. This process helped create common language for talking about writing. Consistent with the findings from Andrade (1999), students were more likely to talk about their writing in terms of the criteria spelled out in the

rubric. A third benefit from the instructor's perspective was that the rubric made grading easier. Unlike previous courses, the grade was aligned with a scoring guide. And finally, the rubric provided better feedback to students. In addition to the embedded comments, the rubric points out the specific areas where a student either excels or needs improvement.

2. Applying a common rubric consistently and accurately was not easy. For the course used in our study, all three authors independently rated the papers (see previous section). Despite two of the raters (the non-instructors) adding a training step to help operationalize the criteria, there was still significant variance among raters. It is beyond the purpose of this article to report analysis of these variances, but some observations and tentative conclusions were drawn. As part of this study, the two non-instructor raters met after independently rating the first set of papers to mediate what they could determine was the "best" or most accurate rating for each of the six rubric criteria. They sought not to compromise, but to determine as accurate a

rating as possible given the rubric descriptors. This mediated score was then compared to what the instructor had actually rated the papers. Among the findings, two things emerged. First, the instructor scores were almost always higher than the mediated scores. For the six rating categories the smallest average variance (per paper) was .43 higher for the instructor. Table 3 shows the average variances for each category. One tentative conclusion for this finding is that having to assign a grade tended to inflate the ratings. That is, the instructor not only used the rubric for rating categories but for assigning grades. Literature in both rubrics (e.g., Varner and Pomeroy, 1998) and the broader field of feedback instruments used in business such as performance appraisals (e.g., DeNisi and Pritchard, 2006) warn against the mixing the formative part of evaluation with the summative (attaching a grade). In this case, not having to attach a grade to a real student freed the non-instructor evaluators to focus on the actual performance as it related to the rubric standards.

Table 3: Comparison of Averages Between Mediated and Instructor Ratings

Context		Organization		Support		Clarity		Coherence		Revision	
Med*	Inst**	Med	Inst	Med	Inst	Med	Inst	Med	Inst	Med	Inst
3.55	4.27	3.48	4.14	3.61	4.21	3.55	3.98	3.18	3.91	3.05	3.80
-0.73		-0.66		-0.60		-0.43		-0.43		-0.75	

* Med - is the mediated rating from the two non-instructors

** Inst - is the instructor rating

A second thing that emerged from the findings comparing the mediated scores to the instructor's scores was the lack of differentiation between some categories. For example, the categories of clarity and coherence (dealing with issues of writing style) were rated nearly identically by the instructor. Over 86% of the papers were rated either exactly the same or a difference of .5 for these two categories. The averages in Table 3 capture this congruence. The categories of organization and support had even more congruence with 95% being either exactly the same (57%) or at a .5 difference. This congruence was only slightly less evident among the mediated scores in these categories.

These findings along with the reflections on the process leads to a conclusion that evaluating six categories - especially ones as diverse as the ones for our rubric involving content all the way to copy-editing - was very difficult to do in one reading. The option of reading each paper more than once is not appealing especially given the goal of leveraging faculty time to achieve multiple goals. The authors, instead, recommended to the curriculum and assessment committee that some of the categories be collapsed; in this case, coherence and clarity would become one category and organization and development another one - reducing the categories to four.

4. Achieving high consistency, let alone accuracy, may be a difficult goal. Although the authors did attempt to "train" themselves on the rubric and how the categories and standards might be operationalized, they had a lot of variance among themselves on ratings. Despite the specific

standards spelled out in the criterion-based rubric, raters either interpreted the standards differently or perceived the written performance differently. For example, on the category of revision and proofing the two non-instructor raters had an average variance of one full point (4.02 to 3.02). A reason driving the goal of consistency, both relatively among categories and in absolute score, is so that students can get clear feedback across the MBA program, not just in a single course. The challenge is to identify student writing problems early in the program and to identify the specific areas for improvement. Yet, if different faculty members are unable to provide consistent feedback, it seems less likely students will be able to optimally apply the feedback they do get. On the other hand, DeNisi and Pritchard (2006) report that, in the extensive research on performance appraisals over several decades, error reduction in ratings (achieving consistency) has no relation to accuracy. That is, a focus on improving the measurement does not necessarily positively impact the actual accuracy of the ratings. Furthermore, some see variance among raters as natural since "different . . . raters have different expectations about performance, as well as different opportunities to observe performance" (DeNisi and Pritchard, 2006: 258). Based on these initial observations, common rubrics would seem to require training. However, as noted by DeNisi and Pritchard (2006), contextual features of the environment have an impact on how feedback is given and received. Training may be less important than diffusing the use of the

common rubric criteria in more courses in the MBA program and creating a high expectation context for performance in written communication tasks.

5. Several questions deserve more empirical study. First, does the rubric provide actionable feedback for students? Prior studies have indicated evidence that rubric-assisted feedback helps students identify and discuss communication issues (Andrade, 1999), but does the rubric actually help them change their behavior? One critique of the long history of feedback instrument research is the over-focus on measurement when the critical goal is to improve performance (DeNisi and Pritchard, 2006). With the feedback shorthand provided by the rubric, creating some measure of grading efficiency, does the rubric aid in instructing students? This question is worth investigating both for within a course and longitudinally over a program. Second, with only minimal training can different faculty use the rubric consistently and accurately? Prior research as well as the authors' initial experience indicates that this is difficult. Still, the question is important because the rubric offers a chance to create common expectations across a program, not just a single assignment. Finally, can a bottom-up assessment and curriculum process lead to increased use of course-embedded assessment among faculty? Just a few years ago, rubrics were uncommon, but through faculty efforts at developing common rubrics it is expected use of rubrics will increase. If this is true, one result of increased use of rubrics by faculty is that there is greater chance to improve the overall context of the program, which might mitigate the challenges of achieving reliable and accurate measures.

REFERENCES

- Andrade, H. 1999. The role of instructional rubrics and self-assessment in learning to write: A smorgasbord of findings. A paper presented at the annual meeting of the **American Educational Research Association**, April 21, 1999.
- Ashbaugh, D. 1994. Improving writing skills while increasing understanding of management course content. **Journal of Management Education**, 18: 369-374.
- Borxi, M., & Mills, T. 2001. Communication apprehension in upper level accounting students: An assessment of skill development. **Journal of Education for Business**, 76: 193-6.
- Brinko, K. 1993. The practice of giving feedback to improve teaching: What is effective? **Journal of Higher Education**, 64: 574-593.
- Carnes, L., Jennings, M., Vice, J., & Wiedmaier, C. 2001. The role of the business educator in a writing across the curriculum program. **Journal of Education for Business**, 76: 216-220.
- College Entrance Examination Board. 2004. **National Commission on Writing: Writing: A ticket to work...or a ticket out - a survey of business leaders**. Princeton: CEEB.
- Conference Board Press Release. 2006 (Oct. 2). **Most young people entering the U.S. workforce lack critical skills essential for success**. <http://www.conference-board.org/utilities/press>.
- DeNisi, A., & Pritchard, R. 2006. Performance appraisal, performance management and improving individual performance: A motivational framework. **Management and Organization Review**, 2: 253-77.
- Emig, J. 1994. Writing as a mode of learning. In C. Bazerman, & D. Russell, (Eds.), **Landmark essays on writing across the curriculum**, (pp. 89-96). Anaheim, CA: Hermagoras Press.
- Hansen, W. 1993. Teaching a writing intensive course in economics. **Journal of Economic Education**, 24: 213-218.
- Hogan, R. 2006. **Explicit business writing: Best practices for the twenty-first century**. Bloomington, IL: The Business Writing Center. From News Release, PR Newswire Association.
- Kryder, L. 2003. Grading for speed, consistency, and accuracy. **Business Communication Quarterly**, 66: 89-96.
- Moss, P. 1994. Can there be validity without reliability? **Educational Researcher**, 23: 5-12.
- National Commission on Writing (Report)**. 2004 (Sept.). College Entrance Examination Board, Inc.
- Sasse, C., Daley, J., & Bassett, W. 2005. Creating assessment leverage: Course embedded assessment. **Proceedings for Society of Advancement for Management**, Las Vegas, NV, April 4.
- Stevens, D., & Levi, A. 2005. **Introduction to Rubrics**. Sterling, Virginia: Stylus Publishing, LLC.
- Taras, M. 2003. To feedback or not to feedback in student self-assessment. **Assessment and Evaluation in Higher Education**, 29: 549-565.
- Varner, L., & Pomerence, P. 1998. Assessing competency in business writing. **Business Communication Quarterly**, 61: 83-91.
- Walvoord, B., & Johnson A. 1998. **Effective Grading**. San Francisco: Jossey-Bass.
- Wardrope, W. 2002. Department chairs' perceptions of the importance of business communication skills. **Business Communication Quarterly**, 65: 60-72.
- Wiggins, G. 1990. The case for authentic assessment. **Practical Research, Assessment & Evaluation**.

Anthony Tocco is professor of accounting at Rockhurst University. He is president of Investment Research & Advisory Corporation; and chairman of the Board of Weldon Capital Mutual Funds. He has published case studies in the Society for Case Research, and authored articles in the Financial Executive and the National Public Accountant and various other journals.

Craig Sasse is assistant professor of management and division chair at Rockhurst University. He research interest include performance management, corporate social responsibility, and pedagogy, including the area of business communication. He has published in Business Horizons, Business Case Journal, Annual Advances in Business Cases, and Journal of Economics and Economics Education Research.

Turner White is an assistant professor of management at Rockhurst University and president of White and Company LLC, a management consulting company. His research interests include strategic formulation, execution and control, effective business communication, and governance and ethics. He serves on the board of directors of CPI Corp. among others.

Appendix A: Rubric Chosen for Finance Topics Course Writing Assignment

Items of Evaluation	Exceeds	Meets	Does not Meet
1. Substance			
Context and Integration	Synthesizes data points from class, speaker, and research articles. The articles and main points speak to the topic and identified purpose.	Speaks to the Topic, but does not synthesize the information as well as it could.	Does not state purpose or context of paper OR does not address the right topic.
Score	5 4	3	2 1
Organization	Paragraphs are unified around a main point or assertion. The main points are assertive and clear, not trivial or vague.	Has main points, but they are not as explicit as they might be. Paragraphs are unified okay but topic sentences are weak.	Main points are not clear and/or they are trivial (e.g., merely stating facts).
Score	5 4	3	2 1
Support and Development	Develops assertions with explanation and support. Uses articles and speaker comments as part of the support.	Uses articles and other relevant information but not as fully developed as the points might be.	Tends not to provide evidence for claims or assertions made.
Score	5 4	3	2 1
2. Writing			
Clarity	The writing is precise in use of terms; meaning is clear (e.g., pronouns have clear antecedents).	The terms are pretty clear (not overly vague) but the narrative gets somewhat generalized.	Too much of the narrative is vague, confusing, or ambiguous.
Score	5 4	3	2 1
Coherence	The flow is smooth; useful transitions evident. Relates ideas well using subordinating clauses. Is easy to read.	Reads okay, but the writing is a little choppy or some sentences unnecessarily awkward or poor transitions.	Hard to read because sentences don't relate to each other well or is written awkwardly.
Score	5 4	3	2 1
3. Copy-Editing/Formatting			
Revision/Proofing	There is evidence that this has been reviewed. Sentence mechanics are free of errors. And is of the right length.	There is evidence that this has been reviewed and is mostly free of errors, but is either too short or too long. If the right length, it falls here if there are a few mechanical errors but not distracting ones.	Has not gone through editing (obvious errors not caught) and/or has several mechanical errors.
Score	5 4	3	2 1