

---

# COMPUTER-ASSISTED GRADING RUBRICS: AUTOMATING THE PROCESS OF PROVIDING COMMENTS AND STUDENT FEEDBACK

*Andrew J. Czaplewski*

*Rubrics offer marketing educators numerous advantages in grading written assignments, oral presentations, or even in-class participation. However, there are also several criticisms of grading rubrics that make them less than appealing for many. This paper describes the benefits and problems of grading rubrics and introduces a computer-assisted approach that aims to overcome these problems, while preserving and enhancing the benefits. The main added benefit of a computer-assisted grading rubric is to quickly and efficiently provide more specific student feedback that can be used to improve future work, and increase perceptions of grading fairness, and course satisfaction.*

## Introduction

Compared to preparing and delivering dynamic lectures with high levels of student involvement and class discussion, designing highly engaging in-class activities, or arranging high quality guest speakers, grading assignments can often be seen as anywhere from the less glamorous aspect of teaching to a dreaded requirement of the job. In recent years grading rubrics have become very popular assessment tools that promise to remove some of that grading drudgery. In essence, a rubric is an assessment tool that clearly outlines the criteria for an assignment (for example, a demonstrated ability to apply marketing concepts, or the quality of research sources) and articulates various levels of what an instructor is looking for on each graded dimension from weak to excellent (Goodrich 1997). A computer-assisted grading rubric builds on the framework of a standard rubric to provide students with extensive comments and feedback for each level of performance on each criterion of assessment. We believe there are tremendous benefits to this innovation of standard rubrics. Also, this tool is very flexible and can be used in a wide variety of assessment contexts including marketing plans, oral presentations, and case analyses.

While electronic grading systems do exist to fully automate the analysis and grading of essays such as SA Grader ([www.SAGrader.com](http://www.SAGrader.com)) and MarkIt ([www.essaygrading.com](http://www.essaygrading.com)), it is important to note that

the computer-assisted grading rubric presented in this article does not automate a professor's evaluation of student work. A computer-assisted grading rubric is employed during and after the professor has analyzed student assignments (Anglin et al. 2008). More specifically, the computer-assisted rubric described in this paper utilizes the power of database technology to store and quickly retrieve a comprehensive set of carefully worded and constructed comments and feedback which students can use to improve upon their work, and to enhance understanding of their earned grade, thus enhancing perceptions of grading fairness and overall satisfaction with their course.

## Problems with Standard Grading Rubrics

The most common approach to a standard rubric is to create a table with a row for each assessment criterion and four or five columns, one for each level of quality gradation. For example, a row might be the quality of marketing recommendations, and the columns would be descriptions of what an A grade, B grade, C grade, and D/F grade would look like for that graded criterion. There are numerous drawbacks inherent to this approach. This section outlines the three most problematic issues.

First, based on a general description of assessment categories, students are assumed to be able to look at their assignment next to the professors box ratings and agree that their assignment falls into that grading category. However, even with an excellent rubric, students may lack the motivation or ability to self-assess. Even the best rubrics are just not entirely self-explanatory to students. Without this agreement between what the student sees and what the professor says, students will not perceive that they have been graded fairly (see

---

**ANDREW J. CZAPLEWSKI** (Ph.D. Arizona State University) is an Associate Professor of Marketing and International Business at the University of Colorado at Colorado Springs. He earned his MBA in International Management from Thunderbird School of Global Management. His research interests are in customer-to-customer value creation, services marketing, and social responsibility. Dr. Czaplewski has been published in *Journal of the Academy of Marketing Science*, *Journal of Business Research*, and *Marketing Management*, among others. (email: [aczaplew@uccs.edu](mailto:aczaplew@uccs.edu))

---

*Marketing Education Review*, Volume 19, Number 1 (Spring 2009).

Houston and Bettencourt 1999 for an excellent summary on the importance of perceived fairness in grading). For example, a standard rubric for a written assignment taken from a popular rubric creation website (Rubistar—<http://rubistar.4teachers.org>) contains a graded criterion (or “trait”) for organization. Four levels of performance read (A) Information is very organized with well-constructed paragraphs and subheadings, (B) Information is organized with well-constructed paragraphs, (C) Information is organized, but paragraphs are not well-constructed, and (D/F) The information appears to be disorganized. Even a more advanced undergraduate student may lack the ability to self-assess using these categories.

A second related problem stems from a limited column space to provide a detailed enough description of an A grade or a B grade, etc. Moreover, a description can get convoluted and begin to lose meaning to students if it is too long. By nature, description of a particular graded category needs to be somewhat generic so that the assessment falls neatly into a particular category. If the performance by a student can fall into multiple categories, the rubric breaks down (Popham 1997). For example, a typical rubric for a written case analysis would include a grading criterion (or “trait”) for identifying decision alternatives. Three levels of performance might read as (A) Very Good: Identifies a set of reasonable options that demonstrates creativity and the ability to integrate marketing concepts, (B) Good/Satisfactory: Identifies and discusses a set of reasonable alternatives, and (C/D) Poor/Unsatisfactory: Does not identify alternatives or fails to identify reasonable alternatives. While these are clearly distinct categories, if a professor assesses the case as being Good/Satisfactory while a student sees their work as meeting the criteria of Very Good, a sense of fairness is easily lost from the student’s perspective.

A third shortcoming of standard rubrics is that all-too-often they are used merely as a tool to assign a final grade that is justified in the eyes of the professor. This “teacher-as-sole-judge-of-quality” thinking misses a great opportunity for teaching, instruction, and learning on the part of the student (Goodrich Andrade 2005). Using another example from Rubistar, the following descriptions are used for the 2nd and 3rd level of quality for presentation enthusiasm: (B) Facial expressions and body language sometimes generate a strong interest and enthusiasm about the topic in others, and (C) Facial expressions and body language are used to try to generate enthusiasm, but seem somewhat faked. In addition to these categories providing ample opportunity for dispute, they provide no suggestions for improvement or useful feedback.

## Benefits of Computer-Assisted Grading Rubrics

Many of the benefits of standard rubrics also pertain to computer-assisted grading rubrics. Perhaps the greatest benefit of rubrics is reduced time it takes to grade assignments (Kryder 2003; Anglin et al. 2008). A related benefit is that with clear expectations for each criterion and levels of performance, a professor can pass the grading duties on to a competent teaching assistant. This is more than a time savings; it is a complete savings of responsibility.

Another benefit is that rubrics can increase the validity and accuracy of grading (Gavin, Glasswell and Harland 2004). Professors often grade assignments over several days and in different contexts including campus office, home office, a waiting room, or a park. Rubrics hold the promise of making grading more evenhanded regardless of whether the grader has a full or empty stomach.

A benefit often overlooked is that rubrics are real world. By getting familiar with rubrics in marketing courses, students will be better prepared when they see them used in a variety of real world situations such as advertising competitions, getting evaluated in a sales call or a client presentation, or a grant proposal by a nonprofit marketer. Regardless of the situation, students will benefit by learning how to “start with the end in mind” and having a clear understanding of what is required before they even begin their assignments.

More specific to computer-assisted grading rubrics, an increased instructor feedback is demonstrated to increase student satisfaction (Eom, Wen and Ashill 2006). Also, making comments and feedback more specific, rather than generic, increases their usefulness, and carefully structuring comments and feedback to be encouraging can improve students’ writing (Quibble 1997).

The next section outlines how computer-assisted grading rubrics can be used to overcome the problems associated with standard rubrics by automating the process of providing specific comments and feedback on student work. Table 1 provides a summary of the key benefits of standard grading rubrics and computer-assisted grading rubrics.

## Building a Computer-Assisted Grading Rubric

### Step 1

The first step in creating a computer-assisted grading rubric the same for a non-computer assisted rubric. That is, to outline the graded criteria of an assignment and provide clear and detailed explanation of each criterion as well as what students are expected to deliver to meet the criterion. Table 2 provides examples of graded ele-

**Table 1**  
**Key Benefits of Standard and Computer-Assisted Grading Rubrics**

<i>BENEFIT</i>	<i>Advantage of Standard Rubrics</i>	<i>Advantage of Computer-Assisted Rubrics</i>
Reduced time in grading assignments	Yes	Yes
Can pass grading task to a competent Teaching Assistant	Yes	Yes
Increase validity and accuracy of grading—make grading more evenhanded.	Yes	Yes
Increased instructor feedback increases student satisfaction (Eom, Wen and Ashill 2006)	No	Yes
Comments and feedback are sufficiently specific to be useful for student improvement	No	Yes

ments for three marketing assignments: a marketing audit, an oral presentation, and a case analysis. Note that these can be used as is or easily customized to suit individual preferences.

### *Step 2*

The next step is to provide a qualitative description of gradations of quality for each graded element. Usually four or five quality levels are described for each graded element. As discussed earlier, the most common approach is to use a table with a column for each level of quality outlined. Using a four-column approach, the instructor provides a description of what an A grade, B grade, C grade, and D/F grade would look like. Note that this is where most rubrics end. No specific comments or feedback are provided, and the categories of performance are all visible to the students. After this, the instructor simply assesses the assignment by checking which box best describes the performance demonstrated.<sup>1</sup>

Note that with a computer-assisted rubric where comments and semi-custom feedback are imported, this step can be substituted with a scoring grid where the professor provides numeric scores for each graded criterion. This alternative to Step 2 may increase perceptions of fairness, as the student will only see the comments and feedback provided rather than descriptors for grading categories that do not apply to them. In other words, with a scoring grid and imported comments, students would not see the descriptors of other categories and may be less likely to disagree with the professor's assessment as a result.

### *Step 3—Taking Rubrics to the Next Level*

The third step in creating a computer-assisted rubric is to create a comprehensive database of specific com-

ments. Similar to step 2, comments reflecting gradations of quality on each graded element are needed. Only in this stage, the number of comments is much greater and can therefore seem much more customized to more accurately assess student performance. Anyone who has spent time providing comments to students on their assignments quickly finds that their comments and feedback start to sound very familiar. After a while it seems like professors are repeating themselves over and over again. Creation of a comments database minimizes the effort of re-creating comments over and over, and allows comments and feedback to be refined so they are more carefully constructed to be fair, encouraging, and consistent. Specifically, this approach can make comments appear less canned and written just for a particular students' assignment. In practice, students never realize that the comments for their assignment are from a standardized database. Table 3 provides a very abbreviated example of comments for two grading criteria of a marketing audit used in a principles of marketing course. As noted at the end of the table, the author has posted a sample computer-assisted rubric used for grading a marketing audit assignment in a Principles of Marketing course ([www.uccs.edu/aczaplew/rubricsample](http://www.uccs.edu/aczaplew/rubricsample)). These comments can be used as is, or are completely customizable to suit individual needs and preferences.

The technology used to automate the process of pulling a comment into an assessment form is quite simple. The two most straightforward options are to use Microsoft Access or Microsoft Excel. In Access, the forms function efficiently manages the process. Excel is much easier for most users as there is greater familiarity with this software. First, each comment needs a code (see Table 3). Using a combination of the INDEX and MATCH functions, the grader only needs to enter the comment code into the students' grade form. The grade

**Table 2**  
**Examples of Grading Criteria for Three Different Marketing Assignments:**  
**(1) Marketing Audit, (2) Oral Presentation, and (3) Case Analysis**

---

---

*(1) Grading Criteria for Marketing Audit Assignment:*

---

**APPLICATION:**

- Demonstrated ability to apply marketing concepts from the course.

**ANALYSIS & RECOMMENDATIONS:**

- Depth of analysis / Quality and persuasiveness of recommendations.

**RESEARCH:**

- Documentation of inferences.
- Quality of sources.

**WRITING:**

- Overall quality of writing / Proper grammar / punctuation.

**ORGANIZATION / STYLE:**

- Attractive, readable format / Use of organizing tools (headings, sub-headings, bullets, tables, uses of software virtuosity).
- 

*(2) Grading Criteria for Marketing Audit Oral Presentation*

---

**ATTENTION / INTEREST:**

- Effectiveness in gaining audience attention and maintaining audience interest throughout .

**DELIVERY:**

- Physical presence, eye contact, voice, pitch, enunciation, avoidance of fillers, conversational.

**VISUAL AIDS:**

- Quality and cohesiveness of presentation slides / Creative uses of software virtuosity.

**ANALYSIS & RECOMMENDATIONS:**

- Quality of quantitative and qualitative analysis.
- Quality and persuasiveness of recommendations / Recommendations based on the analysis.

**QUESTION AND ANSWER SESSION:**

- Effectiveness in managing Q&A session / Quality of answers.
- 

*(3) Grading Criteria for Case Analysis*

---

**PROBLEM DEFINITION:**

- Clear, accurate, concise problem definition / Identifies objective, success measure, constraints.

**DEVELOPMENT OF ALTERNATIVES:**

- Quality and feasibility of alternatives.

**DECISION CRITERIA:**

- Quality of criteria for evaluating alternatives / criteria apply to all alternatives.

**ALTERNATIVE EVALUATION:**

- Depth of analysis / Strategic tone of evaluation.

**STRATEGY AND IMPLEMENTATION OF SOLUTION:**

- Application of course concepts / Quality of strategy development and tactical implementation.
-

**Table 3**  
**Abbreviated Sample Database of Comments\***

<i>Comment Code</i>	<i>Category 1: Application of Marketing Concepts</i>
1A+	Superb, extensive application of marketing concepts. Outstanding demonstration of marketing knowledge gained from the course.
1A	Excellent, extensive application of marketing concepts. Excellent demonstration of marketing knowledge gained from the course.
1B	Overall, very good application of marketing concepts. Very good demonstration of marketing knowledge gained from the course. However, you have some room for improvement in this area.
1C	Generally good application of marketing concepts. Good demonstration of marketing knowledge gained in the course. However, more effort was needed in this area.
1D	Some minor effort was made to apply the marketing concepts covered in this course to your marketing audit. However, much more effort was needed in applying course material into your report. A primary objective of the marketing audit is for you to apply marketing concepts to the specific company you chose for your project. This opportunity was largely missed.
1F	As stated in the instructions, the primary learning objective of this project is for you to demonstrate the knowledge you gained from this course by applying the marketing concepts we covered to the specific company you chose for this project. However, your report is characterized by an absence of application of course material.
1Misc1	The following sections of your report had especially strong application of marketing concepts: <i>(manually type any sections that apply)</i> .
1Misc2	The following sections of your report lacked any significant amount of application of marketing concepts and needed improvement: <i>(manually type any sections that apply)</i> .
	<i>Category 2: Analysis</i>
2A+	Your report demonstrates superior depth of analysis. All of your inferences are well supported. This is an outstanding aspect of your report.
2A	Excellent depth of analysis. Your inferences are well supported. This is a strong element of your report.
2B	Overall, very good depth of analysis. Most of your inferences are supported.
2C	Generally good depth of analysis. Inferences need to be better supported, but good job overall.
2D	The report needs to have more depth of analysis. Many of the questions posed in the instructions for each section would apply to your audit, but they are largely ignored. Re-visit the "analysis" section of the marketing audit instructions for ways you could have added more depth of analysis.
1F	Overall, your audit was written in very general descriptive terms rather than from an analytical perspective. Please re-visit the "analysis" section of the marketing audit instructions to see where you went wrong in this area.
2Misc1	In particular, the following sections demonstrated excellent depth of analysis: <i>(manually type any sections that apply)</i> .
2Misc2	Specifically, the following sections lacked a strong analysis: <i>(manually type any sections that apply)</i>
	<i>Category 6: General Comments on the Most Common Mistakes</i>
6Misc1	All sections have a strict two-page limit (see instructions). This is an issue of fairness. All reports have the same page limit for their analysis and recommendations on each section.
6Misc2	Your report does not contain an Executive Summary as required (see instructions).
6Misc3	Your perceptual maps are missing. They needed to be included as an appendix (see instructions).
6Misc4	Your perceptual maps are included in an appendix; however, they actually need to be referenced and discussed in the Segmentation, Positioning and Targeting section and discussed (see instructions).

\*For a sample computer-assisted rubric with a comprehensive database of comments see: ([www.uccs.edu/aczaplew/rubricsample](http://www.uccs.edu/aczaplew/rubricsample)).

**Table 4**  
**Comparison of Student-Faculty Ratings\***

Item:	Principles of Marketing		International Marketing (UG)		International Marketing (Grad)	
	Pre (n=18)	Post (n=20)	Pre (n=30)	Post (n=31)	Pre (n=17)	Post (n=14)
How much learned in course	4.50 ( <i>t</i> =1.86 / <i>p</i> =.075)	5.15	4.77 ( <i>t</i> =1.12 / <i>p</i> =.267)	5.06	4.65 ( <i>t</i> =1.86 / <i>p</i> =.071)	5.21
Instructor rating overall	4.83 ( <i>t</i> =2.39 / <i>p</i> =.026)**	5.65	5.07 ( <i>t</i> =1.43 / <i>p</i> =.079)	5.52	4.88 ( <i>t</i> =3.07 / <i>p</i> =.005)**	5.50
Course rating overall	4.67 ( <i>t</i> =1.53 / <i>p</i> =.138)	5.25	4.87 ( <i>t</i> =1.34 / <i>p</i> =.186)	5.27	4.88 ( <i>t</i> =2.42 / <i>p</i> =.023)**	5.43
Composite of all rating items (6 items total)	4.69	5.40	4.94	5.27	4.88	5.38

\* Mean scores are reported for all items. All items measured on a scale of 1=low to 6=high.

\*\* Statistically significant at <.05.

form returned to students and the database of comments can be kept in separate workbooks. The only thing that needs to be done prior to emailing or posting the grade form for student retrieval is to “cut” the comments and then “paste special” using the values option. This removes all of the coding and embeds the comments into the workbook without referring to the database workbook. If the grading form is printed and returned to students in class, this step can be skipped.

## Method

The efficacy of computer-assisted grading rubrics to automate the process of providing comments and feedback was assessed in three ways: (1) an analysis of pre and post student-faculty evaluations for one graduate and two undergraduate marketing courses, (2) an analysis of the pre and post written comments from student-faculty evaluations for one graduate course, and (3) an analysis of questions from a supplemental end-of-course survey for one graduate and two undergraduate marketing courses.

The first approach to assessing efficacy was to compare student-faculty evaluations of three separate courses (two undergraduate and one graduate). In all cases, the student-faculty evaluations were administered two weeks prior to the final exam. The pre condition was when a standard rubric was used to grade written assignments without any written comments or feedback of any kind (as described up to Step 2 in building a rubric above). In each instance, the same instructor taught both the pre and post conditions and the post condition was the very next time the course was taught by that instructor. The post condition used the same

grading rubric as in the pre condition, only this time with computer-assisted comments and feedback from a database of comments created to specifically describe their performance on the assignment (again, see Table 3 for an abbreviated example of comments). Except for using the computer-assisted rubric, no other significant changes were made to the course between the pre and post conditions. Also, the average GPA for the course sections in the post condition actually decreased slightly compared to the pre condition.

Specifically, three items from the student-faculty evaluation forms were evaluated as well as composite score for all rated items including instructor respect and professional treatment of students, availability of instructor, and intellectual challenge of the course. The results of this comparison are in Table 4.

The second approach to assessing the efficacy was to analyze students’ written comments on the student-faculty evaluation forms. For this analysis, I analyzed comments from the post condition of the graduate level International Marketing course to the previous five sections of that course where a standard grading rubric was used. The reason this course was chosen instead of the undergraduate courses is because in the past I observed that students often complained about not getting enough specific feedback on their written assignments. I tried several changes to make the rubric more specific for each graded criterion, but the comments persisted or increased. In this course, students are assigned five case analyses throughout the semester. Therefore, the students were seeking more specific comments and feedback that they could use to improve their next written case analysis. From this analysis, in the pre condition an average of one negative comment

**Table 5**  
**Comparison of Student-Faculty Ratings\***

Item:	Principles of Marketing		International Marketing (UG)		International Marketing (Grad)	
	Pre (n=18)	Post (n=20)	Pre (n=30)	Post (n=31)	Pre (n=17)	Post (n=14)
Overall satisfaction—would recommend course to a friend	4.67 ( <i>t</i> =2.15 / <i>p</i> =.042)**	5.55	4.77 ( <i>t</i> =2.48 / <i>p</i> =.017)**	5.55	4.76 ( <i>t</i> =2.72 / <i>p</i> =.011)**	5.43
Professor's fairness in grading	4.50 ( <i>t</i> =2.64 / <i>p</i> =.014)**	5.50	5.10 ( <i>t</i> =0.97 / <i>p</i> =.337)	5.37	4.71 ( <i>t</i> =3.22 / <i>p</i> =.003)**	5.57
Professor's comments and feedback were <i>Helpful</i> in understanding grading process for written assignments	NA	5.35	NA	5.26	NA	5.64
Professor's comments and feedback on assignments were <i>Useful</i> in improving future writing assignments	NA	5.30	NA	5.29	NA	5.57

\*Mean scores are reported for all items. All items were measured on a scale of 1=strongly disagree to 6=strongly agree. \*\*Statistically significant at  $<.05$ .

about insufficient feedback on written assignments was calculated for every 6.75 student-faculty evaluation forms (from a total sample of 81 student evaluations). In the post condition, there were zero negative comments about insufficient feedback on written assignments (from a total of 14 student evaluations).

Finally, four items from an end-of-course survey were analyzed to assess the efficacy of the computer-assisted grading rubric. Two of these items were used in the pre and post condition (fairness in grading and overall satisfaction—would recommend course to a friend). The item asking whether students strongly agree or strongly disagree that they would recommend the course to a friend is a summary measure of overall satisfaction with their service experience. Reichheld (2003) argues that complex measures of customer satisfaction or retention won't reveal much compared to a simple, single question of whether customers tell their friends about you. Two additional items were added to only the post condition to specifically address the computer-assisted grading rubric (helpfulness of professor's comments and feedback in understanding grading process for written assignments, and usefulness of professor's comments and feedback on assignments in improving future writing assignments). Table 5 reports the results of this analysis.

## Results

In Table 4, independent samples *t*-tests results are provided. While only three of the mean comparisons

show a statistically significant difference, all of the means are higher in the post condition than in the pre condition. More importantly, as a whole these improvements in student-faculty evaluations are highly substantive. While the post condition of content analysis of past written comments in the student-faculty evaluation is a very small sample size (just 14 students), this additional analysis does provide some support for efficacy of this approach. Table 5 provides further support for the efficacy of computer-assisted grading rubrics. All of these comparisons, except for one, show a statistically significant increase in student evaluations. Again, taken as a whole, these results are also substantive. Clearly this approach improved perceptions of grading fairness and overall perceptions of course satisfaction. However, again we point out the small sample size as a limitation in these results.

## Summary

Taken as a whole, the results support positive outcomes from the use of computer-assisted grading rubrics to provide more specific comments and feedback for written assignments. In the case of analyzing written comments on student-faculty evaluations, the results confirm the anecdotal verbal comments experienced in the classroom. Graduate students are much more vocal with the professor than undergraduates. In the pre condition, students often expressed frustration in class and by email about wanting more feedback on

their graded case analyses. Throughout the term in the post condition, students expressed their satisfaction with the professor's comments and feedback on the case analyses, without any complaints verbally or by email. In short, the computer-assisted grading rubric seemed to have completely solved the problem of students wanting more feedback for improvement.

Mentally, this approach is much less draining because the instructor does not need to strive to make their words more encouraging, less harsh, more consistent with the comments provided to recently graded assignments by other students, or to just come up with things to say. With a database of comments that can always be added to as needed or slightly customized for particular situations, the focus becomes purely on assessment rather than on what to say or how to say it.

## References

- Anglin, Linda, Kenneth Anglin, Paul L. Schumann, and John A. Kaliski (2008), "Improving the Efficiency and Effectiveness of Grading Through the Use of Computer-Assisted Grading Rubrics," *Decision Sciences Journal of Innovative Education*, 6 (January), 51-73.
- Eom, Sean B., H. Joseph Wen, and Nicholas Ashill (2006), "The Determinants of Students' Perceived Learning Outcomes and Satisfaction in University Online Education: An Empirical Investigation," *Decision Sciences Journal of Innovative Education*, 4 (July), 215-235.

- Gavin T.L. Brown, Kath Glasswell, and Don Harland (2004), "Accuracy in the Scoring of Writing: Studies of Reliability and Validity Using a New Zealand Writing Assessment System," *Assessing Writing*, 9 (October), 105-121.
- Goodrich, Heidi (1997), "Understanding Rubrics," *Educational Leadership*, 54 (January), 14-17.
- Goodrich Andrade, Heidi (2005), "Teaching With Rubrics: The Good, The Bad, and the Ugly," *College Teaching*, 53 (Winter), 27-30.
- Houston, Mark B. and Lance A. Bettencourt (1999), "But That's Not Fair! An Exploratory Study of Student Perceptions of Instructor Fairness," *Journal of Marketing Education*, 21 (August), 84-96.
- Kryder, LeeAnne G. (2003), "Grading for Speed, Consistency, and Accuracy," *Business Communication Quarterly*, 66 (March), 90-96.
- Popham, W. James (1997), "What's Wrong—and What's Right—With Rubrics," *Educational Leadership*, 55 (October), 72-75.
- Quible, Zane K. (1997), "The Efficacy of Several Writing Feedback Systems," *Business Communication Quarterly*, 60 (June), 109-123.
- Reichheld, Frederick F. (2003), "The One Number You Need to Grow," *Harvard Business Review*, 81 (December), 46-54.

## Endnote

- <sup>1</sup> To see samples of standard rubrics with qualitative descriptors for many different types of graded assignments, the very popular and free Rubistar website is worth visiting (<http://rubistar.4teachers.org>). Also, California State University's College of Business and Economics has compiled an excellent "Rubric Directory" from their research (see <http://business.fullerton.edu/centers/CollegeAssessmentCenter/>).



Copyright of *Marketing Education Review* is the property of CTC Press and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.