Guiding Learning and Assessment through Rubrics

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Abstract

Rubrics can serve as helpful tools for instructors in facilitating and even improving the evaluation process. More than that, they can also foster student understanding and improve student confidence and performance. The author offers an extensive overview of the literature to define and describe different types of rubrics, provides examples, and explores the multitude of benefits afforded by rubrics while also considering the potential challenges. She also outlines best practices for designing effective rubrics and offers suggestions for implementing them successfully in the classroom. Although rubrics require time and care to create, they can contribute significantly to the teaching and learning process.

Keywords: rubrics, assessment, grading practices, student learning

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If one were to ask instructors to identify their least favorite aspect of teaching, it is likely that many of them might say "grading." Who among us has not looked at a pile of student projects and secretly thought to ourselves, "Ugh, it is going to take forever to get through those!"? Evaluating student work is not only time-consuming and labor-intensive, but it can also be mentally grueling to work through a stack of student assignments, much less provide coherent feedback that might help students identify and understand their strengths and weaknesses. While it might be more convenient to employ assignments that can be graded using a Scantron machine, or evaluated automatically through a course management system, the evaluation and grading process doesn't always work that way. Complex student work like essays or presentations certainly do not lend themselves to automated grading. Fortunately, rubrics can serve as helpful tools in facilitating and even improving the evaluation process, while also fostering student understanding and performance. This paper will provide an overview of different types of rubrics, their benefits and applications, and some principles of best practice for rubric design and implementation.

Some Quick Definitions

A review of the literature reveals that there are multiple ways to define rubrics (Dawson, 2017; Reddy and Andrade, 2010). However, rubrics are most commonly defined as documents that articulate assignment expectations, typically including three key features: evaluation criteria (such as "organization"), quality definitions (such as "all ideas were presented in a logical

order"), and a scoring system (such as "proficient" or "novice," or a numerical scale) (Andrade, 2000; Brookhart, 2013; Dawson, 2017; Hack, 2015; Popham, 1997; Reddy & Andrade, 2010). Those three features are instrumental in distinguishing a rubric from a simple checklist, which only specifies desired components of an assignment or task rather than communicating "the learning it's designed to represent" (Brookhart 2013, p. 20). And rather than including scoring or values, a checklist merely identifies those components as either present or not present in a student product (Quinlan, 2006). That is, rubrics go beyond simply telling students what to include in their assignments by accounting for qualities of performance and achievement of big-picture learning goals. For instance, a checklist for an essay assignment might tell students they need to include an introduction and conclusion, a thesis statement, and a minimum of four references, wheras a rubric would tell them that their essays will be evaluated on elements such as organization, development of ideas, and clarity.

Many might conceptualize rubrics as tools that are primarily used in the assessment of written assignments. However, rubrics can be useful for a wide variety of assignments, including performances, presentations, group projects, and problem-solving tasks, to name just a few (Brookhart, 2013; Montgomery, 2002; Reddy & Andrade, 2010). Although they may not be the right fit for assessing work that has only right or wrong answers (Brookhart, 2013), or for pure recall and knowledge assessments, they can be invaluable for assessing authentic and performance-based tasks (see Montgomery, 2002), and even for minor assignments that call for quick grading.

The Benefits: Serving Instructors and Students

Well-designed rubrics have a lot to offer both instructors and students alike in the support of teaching and learning (see the excellent literature review offered in Reddy and Andrade, 2010). What follows here are a few of the most essential benefits of rubrics.

Expediting and Enhancing the Evaluation Process

For instructors, perhaps the most salient and immediate benefits of rubrics are the ways in which they can ease the burden of the grading and feedback process. Indeed, rubrics can make grading more efficient by providing a uniform guide for measuring student performance and by establishing set criteria and a standardized scoring system (Andrade, 2005; Campbell, 2005; Moskal, 2000; Reddy & Andrade, 2010; Shipman et al, 2012). Moreover, a rubric can focus evaluation and serve as a reminder of what is truly important, and as a result, expedite the process. Likewise, rubrics can also facilitate and even enhance the instructor feedback (Andrade, 2001; Andrade, 2005; Jonsson & Svingby, 2007 Luft, 1997). A good rubric can help an instructor resist the temptation to overrun the margins of a student's essay with red ink by offering a locus for directed feedback. Although rubrics absolutely do not eliminate the need for or supplant pointed marginalia, as Andrade (2005) acknowledges, even if an instructor were to do nothing more than simply circle criteria on a rubric, the student would still receive more feedback about her work than a mere letter grade. Thus, the combination of targeted summative evaluations provided on a rubric with selected individualized commentary throughout an assignment can provide students with valuable, thorough and critical feedback that is actually less laborious for the instructor to provide.

Furthermore, and perhaps more important than efficiency, rubrics can pave the way for more fair, objective, and reliable grading practices (Andrade, 2005; Livingston, 2012; Reddy & Andrade, 2010; Powell, 2001; Spandel, 2006;

Wolf & Stevens, 2007). By providing clear focus for the evaluation process, rubrics can foster consistency and make instructors more accountable for the grades they are giving and, ideally, diminish any potential arbitrariness. With rubrics reminding instructors about what is most important, it becomes much easier to ensure that they are measuring each piece of student work against the same ruler, and maintaining reliability when fatigue or busyness surface. And as Spandel (2006) contends, rubrics "keep us honest" and "make us accountable for scores or grades that affect human lives" (p. 21). Indeed, when faced with a pile of projects to evaluate, instructors might (understandably!) forget that grades in fact do matter a great deal to students, and they can play a very real role in the trajectory of their education. Ultimately, research has shown that rubrics foster more confidence in grading for both students and instructors alike (Livingston, 2012), and that confidence alone can undoubtedly be a pivotal factor in motivation and success (Winkelmes, Boye, & Tapp, 2019).

Clarifying Goals

Because rubrics call for articulation of criteria and performance levels, they compel instructors to clarify their goals and learning targets, cultivating overall transparency for students (Andrade, 2005; Hack, 2015; Jonsson & Svingby, 2007; Luft, 1997; Moskal, 2000; Wolf & Stevens, 2008). As such, students can utilize rubrics to plan their approach to an assignment and focus their efforts with purpose, and ultimately experience less anxiety during the process, because they don't have to play a guessing game about expectations (Andrade & Du, 2005).

Rubrics require instructors to clarify goals for students, but first and foremost, rubrics oblige instructors to do so for themselves. The very process of building a rubric helps instructors to identify, clarify, reflect on, and even question their own goals for learning as well

as how they define and recognize proficiency (Andrade, 2005; Luft, 1997; Spandel, 2006; Wolf & Stevens, 2007). As instructors, it behooves us to be thoughtful and purposeful in the tasks we assign students, and ensure that those tasks align with our overall learning objectives; creating a rubric can certainly assist with that alignment process by requiring us to methodically investigate our own expectations and goals. Spandel (2006) affirms that "good rubrics embrace what we value most deeply, always" (p. 19). And only after instructors define those priorities for themselves can they clearly articulate them for students.

Fostering Success and Learning

The kind of transparency fostered by rubrics has been shown to precipitate improved comprehension of course material, higher achievement, and deeper learning in general (Howell, 2011; Petkov & Petkova, 2006; Reddy & Andrade, 2010; Reitmeier, Svendsen & Vrchota, 2004; Winkelmes, Boye, & Tapp, 2019). Students meet with more success when they know exactly what they are being asked to do and how they are going to be assessed, rather than being required to conjecture about an instructor's expectations. Research has even demonstrated that such transparency can help level the playing field for all students (Stevens & Levi, 2005; Shipman et al, 2012), and serve as an equalizing factor for first-generation, low-income, and underrepresented students (Winkelmes, Boye, & Tapp, 2019).

By providing clear learning targets for students, rubrics can also help them learn how to self-monitor and self-evaluate during the completion of a task or assignment (Andrade & Du, 2005; Brookhart, 2013; Jonsson & Svingby, 2007; Reddy & Andrade, 2010; Wolf & Stevens, 2007). Students report that rubrics assist them in reflecting on the feedback they receive as well as identifying patterns of strengths and weaknesses in their work (Andrade & Du, 2005; Livingston, 2012;

Shipman et al, 2012). While feedback from an instructor that highlights specific components in a student's work in need of improvement is invaluable, the framework for feedback that rubrics provide can offer additional clarity for students by making more explicit connections between instructor commentary and concrete assignment expectations as they seek to judge their own work. Developing those self-assessment skills in students can then lead to improved work and higher grades, as well as increased satisfaction and motivation (Andrade & Du, 2005; Brookhart, 2013; Sadler, 2009; Shipman et al, 2012).

What Critics Say

While rubrics clearly offer a multitude of benefits, not everyone is sold on them. For instance, a few critics voice concern that they might promote conformity or stifle creativity by trying to confine the value of student work to boxes and limited definitions of success (Kohn, 2006; Chapman & Inman, 2009; Wilson, 2007). However, many disagree, like Livingston (2012), who contends that rubrics might actually account for necessary complexities in an assignment "more clearly than any traditional number-out-of-the-grading-ether method of assessment" by openly acknowledging those complex or even nebulous components (p. 109).

Kohn (2006) further argues that rubrics turn instructors into "grading machines" and provide a false sense of objectivity (p. 12). Wilson (2007) likewise equates rubrics with generic feedback and automated responses, remarking that rubrics do not accurately reflect her values when grading and disavow the importance of subjectivity in tasks such as writing. Undoubtedly, attempts to automate evaluation -- or any sort of teaching practices -- would eliminate that essential human component. Effective rubrics, however, should absolutely embody an instructor's values and priorities. They are only as good as their criteria

and performance descriptions (Brookhart 2013). Neither do they preclude the addition of individualized feedback, as previously noted. Turley and Gallagher (2008) concur that rubrics can and should offer provisions for narrative commentary, or even include the flexibility of a "wild card" category for instructors concerned about rigidity (p. 90). Spandel (2006) adds that subjectivity can never be fully removed from the evaluation process, but that instructors are obliged to offer justification for grades and demonstrate that those grades are in fact based on sound criteria – all things that rubrics can help facilitate.

Fundamentally, the effectiveness and value of rubrics lie in the quality of their design and the way an instructor puts them to use. Spandel (2006) writes that "using a rubric well is an interactive, interpretive process, in which a teacher's wisdom, insight, experience, and judgment play an important role" (p. 20); Turley and Gallagher (2008) agree, highlighting that rubrics are simply tools that can be misused or maximized, remarking, "it makes little sense to dismiss or embrace a tool… without careful attention to why, how, by whom, and in what context it is used" (p. 87). Simply put, there are good rubrics and bad rubrics. Those that are well-designed offer clear and valid criteria that help students work productively and provide an opportunity to conduct reliable assessment of student learning. In contrast, some rubrics are poorly designed, invalid, and unclear. Likewise, there are effective and ineffective rubric users. Some instructors use rubrics as guides to focus assessment and feedback and to provide consistency, whereas others use a rubric's criteria as cages to constrict student work or to provide no individualized feedback. One of the purposes of this paper is to help readers become creators of good rubrics who know how to implement them effectively.

Types of Rubrics

Rubrics are remarkably flexible pedagogical tools that can take on several different forms, dependent upon the needs of the instructor and the nature of the task being assessed. Firstly, rubrics can be either generalized or task-specific. General rubrics can be used with several different tasks or across similar assignment types, focusing on overall skills rather than task completion (Brookhart, 2013). The American Association of Colleges and Universities (AAC&U) VALUE rubrics created for assessing skills such as critical thinking, inquiry and analysis, quantitative literacy, and ethical reasoning, are excellent examples of general rubrics (see https://www.aacu.org/value-rubrics) (Rhodes, 2010). Conversely, task-specific rubrics, as their name suggests, are are designed with a single task or assignment in mind. Of course, instructors may utilize hybridized rubrics that fall somewhere along the continuum of generalized to task-specific, drawing on features of both to meet their needs. The Center for Advanced Research on Language Acquisition at the University of Minnesota (2019) provides examples of each, including a hybridized example that can be found here.

Holistic Rubrics

Rubrics also typically fall into one of two major formats: holistic or analytic. Holistic rubrics are concerned primarily with overall performance on a task or assignment rather than specific assessment criteria (Howell, 2011; Mertler, 2001; Quinlan, 2006; Riebe & Jackson, 2014). A holistic rubric describes the varying levels of potential performance, without extracting and evaluating discrete criteria, and focuses instead on overall impression of the entire student product. Figure 1 provides one relatively simple example of a holistic rubric designed to evaluate student presentations. This particular example utilizes descriptions and ranges of numerical scores to articulate performance level, though some instructors might prefer letter grades; these can be offered either in tandem, as they are here, or alone.

(See Figure 1 on page 12)

Because of their focus on the "quality of wholeness" of a final product (Riebe & Jackson, 2014, p. 329), holistic rubrics can be especially useful for quick grading, when detailed feedback is not required, or for summative assessments such as final term papers or projects, whose primary purpose is to assess student learning at the end of a course. (Brookhart, 2013; Mertler, 2001). For instance, a holistic rubric could be ideal for quickly assessing minor homework assignments. They can also be valuable for providing a global judgment at the program level, for example when seeking to establish and evaluate whether benchmark standards for a particular discipline, course, or program as a whole have been achieved (Riebe and Jackson, 2014). Mertler (2001) adds that holistic rubrics are often used when generally high-performance quality allows for tolerance of minor errors.

Analytic Rubrics

Unlike holistic rubrics, analytic rubrics facilitate the assessment of each criterion separately. As such, instructors can describe varying levels of performance for individual criteria and assign different scores or evaluations to each, which they can then aggregate for a final grade if so desired (Mertler, 2001; Moskal, 2000). Analytic rubrics can require a bit more time to use due to the attention paid to individual criteria, but they can, as a result, provide more specific feedback to students than holistic rubrics by highlighting discrete areas of strength and weakness (Mertler, 2001). They may also more easily account for the complexity of a given assignment. Figure 2 provides an example of an analytic version of the rubric for evaluating student presentations, in which each criterion is weighted differently based on importance. An instructor may also elect to weight each criterion equally.

An instructor may also choose not to assign points to each criterion and simply stick to a series of performance levels, or conversely, assign a range of points to each performance level, as demonstrated in the above example. Additionally, spaces in the rubric allow for additional individualized comments from the instructor. Alternatively, a rubric could also provide such space for commentary at the end of the document.

Instructors who prefer to distinguish amongst criteria likely prefer an analytic rubric -- particularly if an assignment involves a larger number of criteria or is particularly high-stakes. For instance, an analytic rubric makes it much easier to assess an essay that demonstrates excellent organization, but poor research or development -- a situation in which it might be challenging for some instructors to determine a single holistic score. Brookhart (2013) contends that analytic rubrics are well-suited for formative assessment, because students can more readily see which aspects of their work need attention. Thus, users might find analytic rubrics particularly useful in assessing in-class assignments, scaffolded assignments like essay drafts or research proposals, or other student work submitted throughout the term.

Single-Point Rubrics

One final option is the less common single-point rubric, which articulates solely the acceptable level of performance (Dawson, 2017; Fluckiger, 2010; Gonzalez, 2015; Wilson, 2018). Single-point rubrics are, naturally, simpler for instructors to create, and for students to read, because they offer only a single list of descriptors, rather than a "full menu" of performance levels. Consequently, they are quite appealing to many (Gonzalez, 2015, par. 1). Indeed, there is some debate over whether rubrics truly need representative descriptors at every quality level (Dawson,

2017; Sadler, 2009; Tierney & Simon, 2004). Gonzalez also points out that because of their simplicity, students might be more likely to actually read the descriptors provided. Single-point rubrics also offer more flexibility for instructors who do not want to restrict their assessment to the strict descriptors of an analytic rubric. However, they consequently also require more writing and reflection in the feedback process. Like analytic rubrics, single-point rubrics can be especially useful for formative assessment given that they differentiate individual criteria. However, as with holistic rubrics, they could also be useful for quick grading given their relative simplicity. Wilson (2018) writes that a single-point rubric "can serve as a bridge between the teacher's desire to provide detailed feedback and the administrative need for clear, straightforward evaluation" (n.p.). See Figure 3 for an example of a single-point rubric for student presentations, adapted from Gonzalez's model.

In this model, instructors could further assign points (or a range of points) to each topic, and add a column or columns to indicate points earned.

Which Rubric Should You Use?

Obviously, an instructor must decide which format (analytic, holistic, single-point, a hybrid?) will work best for her needs and preferences. There is not necessarily any "right or wrong" choice in selecting a type of rubric to employ, and no single rubric type is better than others; for example, art pieces do not automatically call for holistic rubrics, and essays do not necessarily require analytic rubrics. Some instructors might be dedicated to using holistic rubrics for their desire to envision and assess a student's work as a unified whole, whereas others might be committed to analytic rubrics for the opportunity they afford to evaluate individual criteria. The good news

is that each format offers a variety of benefits and enough flexibility to suit a range of needs and assignments. In addition, each format allows instructors to determine the kind of grading system they prefer – that is, if grades are a needed part of the assessment. For an overview of some of the matters to consider when choosing amongst the various types of rubrics.

(See *Figure 4* on page 15)

Designing your Rubric

If designing a custom rubric feels daunting, perhaps the best place to start is by simply looking at models. Furthermore, instructors may always use, borrow from, or adapt rubrics that have already been created. The Internet is rife with examples and even free tools that can help instructors generate their own rubrics, such as [Rubric Maker](#) and [Rubistar](#). Rubric Maker provides full analytic rubrics and checklists for a small collection of assignment types, such as lab reports, essays, and oral presentations. In addition, users can create their own analytic rubrics by selecting from pre-loaded components, descriptors, and performance levels, or by customizing their own components. Rubistar allows searches for existing rubric examples by title, author, type, or keyword from a large database. As with Rubric Maker, it also provides a tool for users to create their own rubric by customizing existing templates and utilizing pre-loaded rating scales and categories.

If an instructors prefer to design their own rubric, however, there are undoubtedly many decisions to make. Fortunately, there are some core principles that instructors can follow to ensure that their rubric is as clear and useful as possible.

To get started in the design process, Brookhart (2013) recommends either a top-down method, in which instructors create their own conceptual framework (i.e., determining the components they feel are most important to successful assignment completion based on the identified goals), or a bottom-up method, in which they use successful student work to identify important criteria (i.e., reviewing past student responses to an assignment to determine which components led to the most success). Regardless of design approach or preferred format, instructors should build a rubric that is aligned with reasonable standards, neither too broad nor too narrow in scope (Wolf & Stevens, 2007), and that is affixed to the real needs and abilities of the students (Andrade, 2005; Turley & Gallagher, 2008). In other words, identical expectations likely would not apply to both upper-level and first-year students, or to majors and non-majors, to name just a couple of examples. Once instructors select the type of rubrics they would like to use, the generally agreed-upon steps to rubric design are: 1) identify primary criteria for evaluation; 2) articulate the various performance levels that might be assessed; and 3) compose descriptions to explain each performance level.

Identifying Criteria

As already discussed, instructors must first determine their learning goals before they can begin the rubric design process. Once they identify and prioritize their major goals for the assignment being assessed, they can then begin to isolate the criteria for evaluation, which should align with those goals to ensure validity of their instrument (Moskal & Leydens, 2000). Furthermore, those criteria, just like any good learning outcome, should reflect observable, appropriate, and measurable attributes that are desired in students' work (Andrade, 2001; Brookhart, 2013; Mertler, 2001; Moskal, 2000; Wolfe & Stevens, 2007). Popham (1997) warns against instructors utilizing criteria that are too specific, thereby risking the creation of a checklist of purely task-specific instructions that cannot be generalized to larger course objectives or skills, thus limiting

the instructional value of the assignment and rubric. Consider, for instance, a rubric intended to help assess research-based argumentative essays. A criterion that demanded all research must come from a limited selection of instructor-identified sources would neither help students learn how to identify credible references nor assist the instructor in assessing the students' ability to do so. Conversely, Popham also warns against excessively general criteria that offer little guidance to students or instructors. For example, a criterion that offered a vague description, such as "an exceptional response," would provide no cues for student performance or instructor evaluation, and it would leave the assessment completely open to interpretation by both parties. Would students automatically know what an "exceptional response" looked like? Probably not. In short, a rubric and its criteria should be "teachable." Teachers can use them to guide their instruction and assessment in meaningful and tangible ways, as well as to help students master necessary skills (Popham, 1997, p. 75).

Rubric criteria should also be definable and distinct enough to be evaluated separately from one another (Brookhart, 2013). Andrade (2000) likewise advises instructors to unpack their criteria before finalizing them to ensure that they do not overlap and that only the most important ones have risen to the surface. In the sample rubrics provided here, for instance (Figures 1 – 3), the criteria "organization" and "development" are suitably different enough to be appraised individually.

There are varying suggestions regarding the number of criteria one might include, ranging from three to six, or a general recommendation that a rubric should be no longer than one to two pages (Popham, 1997; Wolfe & Stevens, 2007). Indeed, an effective rubric does not provide a laundry list of all possible criteria, but rather "the right criteria for the assessment's purpose" (Brookhart, 2013, p. 24, emphasis in original). In other words, criteria should

be selected based on their ability to offer meaningful evidence of student learning and performance of the identified goals. Instructors should likewise avoid withholding or obfuscating important criteria, as well as including criteria that students have not been taught (Andrade, 2000; Brookhart, 2013); to do so would undoubtedly undermine the transparency that is such a benefit of using a rubric, and would simply be unfair to students.

Instructors might also consider inviting students to play a role in the rubric-creation process, tasking them with helping to identify important criteria by analyzing anonymous samples of student work. Several scholars advocate including students in this process (such as Brookhart, 2013; Fraile, Panadero, & Pardo, 2017; Spandel, 2006; Wolfe & Stevens, 2007). Both students and instructors thus engage in analysis and reflection, activating their learning, and cultivating the ability to think critically about their own work. Spandel (2006) argues, for instance, that

> ...when students design and use their own rubrics, they read, process text, and view their writing differently. They come to see those rubrics less as rigid requirements and more as writing guides. They take charge of their writing process and no longer depend on us to choreograph their revision" (p. 20).

Taking part in the rubric creation process can likewise help students internalize their understanding of the criteria and, consequently, make more informed decisions about their work (Wolf & Stevens, 2007).

Articulating Performance Levels

Once general objectives and criteria are selected, instructors must next establish the levels of performance or qualities to include in the rubric design. There are a multitude of opinions regarding how one might name and describe these labels/levels. First, the number of performance levels must be determined

based on the task and needs of the instructor. There is no absolute rule regulating the number of levels required for rubrics, although there is a generally expected, typical range: rubrics might include as few as two to as many as six levels (Meuller, 2018; Wolf & Stevens, 2007). Second, one must decide on the labels to attach to those levels. As illustrated in the examples provided earlier, an instructor can choose to use qualitative descriptors (such as excellent, good, fair, etc.) or quantitative levels (such as one through four) (Andrade, 2000; Mertler, 2001; Wolf & Stevens, 2007). Alternatively, one might even choose both qualitative and quantitative labels, or in the case of a holistic rubric, labels that correlate with letter grades. If the purpose of the assignment is to demonstrate achievement of a particular standard, such as those required for certification in an industry skill or in compiling a capstone portfolio, an instructor might choose to use mastery-oriented labels such as Above Proficient, Proficient, and Below Proficient. If demonstrating growth is the priority, then an instructor might instead select "developmental language" for the labels, such as "emerging, developing, arrived" (Wolf & Stevens, 2007, p. 7). See Figure 5 for a sampling of qualitative labels across four performance levels.

(See Figure 5 on page 16)

Writing Descriptors

The inclusion of descriptors for expectations at each level of performance and/or for each criterion is optional, particularly for analytic rubrics. Writing these brief paragraphs can undoubtedly be challenging, not only in terms of the time required, but also in the effort required to provide enough information to accurately interpret each level without becoming overwhelming (Wolf & Stevens, 2007). (They can also increase the sheer size of a rubric!) However, many contend that those descriptors offer more transparency and precision for students as they complete their assignments, and more consistency for instructors in distinguishing student work (Mertler, 2001; Moskal, 2000; Mueller, 2018; Wolf & Stevens, 2007).

Just as there are a variety of options for labeling the performance levels, there are also a variety of suggestions for writing the most effective descriptors. The inclination for many might be to use evaluative terms such as "good" or "poor" to describe the quality of certain attributes in student work. However, Moskal (2000) and Brookhart (1999, 2013) suggest providing "descriptions of the work rather than judgments about the work" when possible (Moskal, 2000, p. 4). As such, Brookhart (2013) encourages instructors to "aim for the lowest-inference descriptors" that still allow them to assess important qualities (p. 33). She notes that high-inference descriptors are those that require the assessor to draw conclusions about the work they are evaluating, whereas low-inference descriptors require fewer large judgement calls or assumptions. For instance, "the writing demonstrates sophisticated style" requires a great deal of inference from the evaluator; on the other hand, "the writing utilizes complex sentence structure, clear transitions, and accurate use of technical terms" is much more specific and requires less inference. Nevertheless, it might be impossible to avoid descriptors that call for at least some inference without reducing them to unforgivingly rigid quantitative descriptions (such as "no more than 2 grammatical errors").

Language and consistency are also important to bear in mind when writing rubric descriptors. Most importantly, rubrics should employ language that is clear and audience-appropriate (Moni, Beswick, & Moni, 2005; Reddy & Andrade, 2010; Tierny & Simon, 2004). Clarity of language is undoubtedly fundamental to the effectiveness and validity of a rubric, because ambiguity can hamper interpretation by both instructors and students (Reddy & Andrade, 2010). Certainly, if neither

the instructor nor students understand what a rubric is asking for, then it is ultimately an exercise in futility. Incorporating parallel language and structure is a useful strategy for achieving greater dependability and clarity in descriptors and scales (Rohrmann, 2007; Tierney & Simon, 204; Wolf & Stevens, 2007). More specifically, each performance-level descriptor should describe the same attributes, such as breadth, accuracy, or clarity; if descriptors for a single criterion or level describe vastly different characteristics, then both evaluator and student alike will struggle to interpret the qualities of a successful response. For instance, given a rubric designed to evaluate the content of a student speech, if one performance level descriptor calls for accuracy whereas another calls for thoroughness, students will likely be confused about the importance of either quality, and the instructor will be unable to conduct valid evaluations. One might even think of the parallel structure and language used in survey questions, such as few/some/many or slightly/moderately/extremely, as a model. See Figure 6 for additional simplified examples of inconsistent and revised descriptors.

(See Figure 6 on page 17)

Using Rubrics Well

Although rubrics can be useful assessment tools all on their own, they can be even more useful instructional tools in the classroom. One simple measure instructors can take is to provide the rubric to students well in advance of assignment completion (Andrade, 2005; Sadler, 2009; Spandel, 2006). It's worth emphasizing that "in advance" does not mean the day before an assignment is due! The rubric can obviously offer much more instructional value when revealed during the working process, or even from the moment an assignment is introduced. While a few, such as Kohn (2006), might perceive rubrics as nothing but cookie cutter grids for automated grading,

and as menus that students use to fashion formulaic responses to assignments, many more emphasize the benefits of giving students advance access. Spandel (2006), for instance, likens offering a rubric to providing directions to an event, or in this case, inviting students to a "learning buffet" (p. 20). Not providing a rubric in advance is akin to saying, "If they didn't happen to have the skills necessary to find their way -- too bad for them. They were out of luck" (Spandel, p. 20). As the examples provided in this paper demonstrate, effective rubrics are not designed to spoon-feed students or to inhibit creativity and risk-taking, but rather to guide student learning with transparency. If student learning and success are the ultimate goals, it only seems just that students should know what the rules are before they play the game.

Of course, simply showing a rubric to students is not enough to capitalize on its instructional benefits -- instructors need to explain it as well. Indeed, rubrics are not completely self-explanatory, and students therefore need help in interpreting and understanding them, even if they played a role in the rubric's creation (Andrade, 2005). It is worthwhile to spend a bit of extra time in class on the front end of assignment preparation to provide guidance for students, as well as throughout the assignment-completion process, with the payoff appearing later in the form of better student work (Winkelmes, Boye, & Tapp, 2019).

What's more, giving students opportunities to practice with the rubric themselves can be even more valuable and productive than simply explaining it to them (Andrade, 2001; Andrade, 2005). One relatively easy and effective opportunity for application is providing students with examples of work -- perhaps other anonymous student work, through peer review, or even real-world examples, if available -- to evaluate using the rubric as a guide (Andrade, 2005; Jonsson &

Svingby, 2007; Mertler, 2001; Sadler, 2009; Spandel, 2006; Winkelemes, Boye, & Tapp, 2019). Working with examples can concretize the rubric components for students in a way that simple explanations cannot (Sadler, 2009). Furthermore, encouraging students to make their own evaluative decisions deepens their engagement not only with the rubric, but the work they are being asked to do. As Sadler observes, "no amount of telling, showing, or discussing is a substitute for one's own experience" (2009, p.4). Moreover, if students are able to think critically about others' work, then thinking critically about their own work can follow. Andrade (2005) adds that using rubrics solely to assign final grades represents "not only a missed opportunity to teach, but also a regrettable instance of the teacher-as-sole-judge-of-quality model that puts our students in a position of mindlessness and powerlessness" (p.29). Using the rubric as an instructional tool in addition to an assessment tool can, thus, empower students as well as teach them.

Conclusion

As the research highlighted in this paper affirms, both instructors and students can benefit greatly from the use of well-designed and well-implemented rubrics in the classroom. While rubrics can certainly facilitate a more efficient and consistent grading process, they can also enhance the learning process in powerful ways. Rubrics compel instructors to reflect on and articulate their goals and priorities from the start, fostering better alignment with learning objectives and improved transparency. They also allow students to peek behind the instructional curtain, in essence, and provide them with a clearer pathway towards success. They also offer plentiful flexibility and variety such that any instructor should be able to find or design one that can be a good fit for his or her logistical needs and pedagogical preferences. And while good grading practices will always require time and thoughtful attention, when designed and employed with care, rubrics can perhaps help instructors ease that burden and guide students at the same time.

Figure 1. Holistic rubric for evaluating student presentations

PERFORMANCE LEVEL	DESCRIPTION	COMMENTS
Excellent **(41 - 50 points)** *Points earned:*	The presentation addresses an appropriate and original topic and demonstrates very clear and easy to follow organization. The presentation provides clear and thorough definitions of key terms as well as several examples and thoughtful details that illustrate the concept well. Visual aids are engaging and attractive, and provide useful information. The presenter addresses audience questions with responses that demonstrate rich knowledge. 3 or more credible and complete references are provided.	
Good **(31-40 points)** *Points earned:*	The presentation addresses an appropriate topic and demonstrates some organization. The presentation provides clear definitions, and offers some details and examples to illustrate the concept being discussed. A clear visual aid is provided with relevant information. The presenter addresses audience questions with sufficient responses. At least 3 credible and complete references are provided.	
Adequate **(21 - 30 points)** *Points earned:*	The presentation addresses an appropriate topic and demonstrates some organization, but is slightly difficult to follow at times. The presentation provides few details. A visual aid is provided, but offers a small amount of useful information.The presenter addresses few audience questions. 2-3 references are provided, and/or references offer incomplete details.	
Below Average **(11 - 20 points)** *Points earned:*	The presentation addresses a topic that doesn't quite meet the requirements, and is difficult to follow. The presentation provides vague and/or insufficient definitions, details, and examples that do little to illustrate the concept being discussed. A visual aid is provided, but it does not provide sufficient or relevant information or is difficult to read and understand. The presenter provides incomplete or vague answers to audience questions. Only one or two references are provided, and/or references are lacking in credibility or missing crucial information.	
Poor **(0 - 10 points)** *Points earned:*	The presentation does not address an appropriate topic, and does not demonstrate any clear method of organization. The presentation does not provide definitions, details, or examples to illustrate the concept being discussed, and does not provide any visual aids. The presenter does not provide time for questions and/or does not respond to audience questions. References are missing.	

Figure 2. Analytic rubric for evaluating student presentations

CRITERIA	PERFORMANCE LEVELS					COMMENTS
	Excellent	**Good**	**Adequate**	**Below Average**	**Poor**	
Appropriate topic (6 points) *Points earned:*	Addresses a clearly appropriate and original topic	Addresses an appropriate topic	Addresses a mostly-appropriate topic	Addresses a topic that does not quite meet the requirements	Does not address an appropriate or relevant topic	
Organization (10 points) *Points earned:*	Demonstrates very clear and easy to follow organization	Demonstrates some organization	Demonstrates some organization, but is slightly difficult to follow at times	Demonstrates some organization, but is difficult to follow	Does not demonstrate clear organization	
Development: **-Definitions of key terms** **- Examples and details to illustrate concepts** **(12 points)** *Points earned:*	Provides clear and thorough definitions of key terms as well as several examples and thoughtful details that illustrate the concept well	Provides clear definitions, and offers some details and examples to illustrate the concept being discussed	Provides a few details and brief definitions.	Provides vague and/or insufficient definitions, details, and examples as illustrations of the concept being discussed	Does not provide definitions, details, or examples to illustrate the concept being discussed	
Visual Aid/s (8 points) *Points earned:*	Visual aids are engaging and attractive, and provide useful information	A clear visual aid is provided with mostly relevant information	A visual aid is provided, but offers a small amount of information; some of the information is irrelevant or vague.	A visual aid is provided, but it does not provide sufficient or relevant information or is difficult to read and understand	Does not provide any visual aids	
Question and Answer Session (6 points) *Points earned:*	The presenter addresses audience questions with responses that demonstrate rich knowledge.	The presenter addresses audience questions with sufficient responses.	The presenter addresses few audience questions	The presenter provides incomplete or vague answers, if any, to audience questions.	The presenter does not provide time for questions and/or does not respond to audience questions.	
Research/ References (8 points) *Points earned:*	4 or more credible, relevant, and complete references are provided.	At least 3 credible, relevant, and complete references are provided.	2-3 references are provided, and/or references offer incomplete details.	Only one or two references are provided, and/or references are lacking in credibility or relevance, or missing crucial information.	References are missing.	

Figure 3. Single-point rubric for evaluating student presentations

CONCERNS (space to comment on areas that need improvement)	CRITERIA (standards for proficient performance)	ADVANCED (space to comment on areas that exceeded the standard)
	Topic Addresses an appropriate topic	
	Organization Demonstrates clear organization and a logical flow	
	Development Provides clear definitions, and offers some details and examples to illustrate the concept being discussed	
	Visual Aid/s An attractive and legible visual aid is provided with relevant information	
	Question & Answer Session The presenter addresses audience questions with sufficient responses.	
	Research At least 3 credible, relevant, and complete references are provided.	

Figure 4. Considerations for rubric selection

Holistic Rubric	Analytic Rubric	Single-Point Rubric
The assignment calls for more impressionistic grading (such as some creative work, like art pieces) The focus of the assessment process is on overall quality or general proficiency (such as in standardized testing, or at the end of a capstone course) The assignment is primarily for summative assessment, and feedback to students is not necessary (e.g., final exams or term papers that will not be returned to students) You must evaluate a very large number of assignments quickly (e.g., student portfolios for multiple sections of a course) The assignment is low-stakes, and time does not allow for in-depth evaluation (e.g., daily assignments or short discussion board posts) You wish to assign whole letter grades, which can align easily with the overall performance levels of a holistic rubric (e.g., A, B, C, etc.)	The assignment is for formative assessment and meant to facilitate student improvement (e.g., scaffolded assignments or early drafts of an essay or project) You want or need to provide detailed feedback about specific areas of strength and weakness (e.g., a group presentation or project with multiple components or a lengthy research paper) You would like to evaluate individual criteria separately and/or weight them differently You don't have the time to provide the more extensive written feedback required of a single-point rubric (such as when teaching several writing-intensive courses) Several people are evaluating the student work, and there is little time for training or norming sessions (such as in a standardized course with a single coordinator overseeing numerous sections) You wish to assign a range of point-based grades, which can align easily with the discrete sections of an analytic rubric	You prefer to provide highly individualized feedback, and prefer not to be confined by strict descriptors or boxes You do not want students to feel limited by the upper level of descriptors You like distinguishing amongst discrete criteria when evaluating, but do not have the time needed to create or implement a full analytic rubric

*Considerations are listed here in no particular order, and no individual criterion outweighs others.

Figure 5. Sample qualitative rubric labels across four performance levels

	Highest Performance Level	$\longrightarrow$		**Lowest Performance Level**
Mastery-Focused	Exceeds Expected Level of Performance	Expected Level of Performance	Minimally Acceptable Level of Performance	Less than Minimum Level of Performance
$\downarrow$	Exceeds Standard	Meets Standard	Approaches Standard	Does Not Meet Standard
	Excellent	Good	Fair	Poor
	Expert	Master	Apprentice	Novice
Development-Focused	Exemplary	Accomplished	Developing	Beginning

Figure 6. Examples of inconsistent descriptors revised to demonstrate parallel structure

		Performance Level		
Criteria		*Beyond Proficient*	*Proficient*	*Below Proficient*
Development	**Inconsistent Descriptors**	Provides multiple examples.	Provides details and definitions.	Does not identify key terms.
	Parallel Descriptors	Identifies and provides thorough definitions of key terms; offers multiple examples and concrete details as illustrations.	Identifies and defines key terms, and provides one example.	Does not identify or define key terms, and provides no details or examples.

Author Biographies

Allison Boye is Founding Director of the Center for Teaching and Learning at Collin College. She holds a Ph.D. in Literature from Texas Tech University with a sub-specialty in Women's Studies, a Master of Arts from Bowling Green University, and Bachelor of Arts degrees in English and Theatre from The College of William and Mary. She has served on the Board of Directors for the Professional and Organizational Development Network in Higher Education (POD) and the Texas Faculty Development Network, and she currently serves as Associate Editor for IDEA Center Staff Papers, and as a consulting editor for College Teaching. Dr. Boye has published both scholarly and creative pieces, and her work has appeared in publications such as To Improve the Academy, The Journal on Centers for Teaching and Learning, IDEA Papers, and The Scholarly Teacher. She is also co-editor of the book Transparent Design in Higher Education Teaching and Leadership (Stylus, 2019).

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