

## Is a Rubric Worth the Time and Effort? Conditions for Success

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**Abstract.** Education scholars have developed rubrics for decades. However, do instructors (supposedly principle stakeholders) actually use rubrics at universities in the way, and to the extent, that scholars expect? Through a focus group and series of semi-structured interviews, this paper examines how Japanese university instructors use or do not use rubrics. This study is divided into three stages: 1) a pilot interview with seven faculty members at the Nagoya University of Commerce and Business (NUCB); 2) a focus group with six faculty members at NUCB; and 3) further exploratory interviews with 13 faculty members at seven universities in the Tokai area of Japan. The findings show that many Japanese instructors do not know about rubrics, and even those who do will not necessarily use them. The current research suggests that rubrics could be instrumental and effective assessment tools if certain conditions are met. Factors influencing rubric use include: 1) instructors' understanding of and engagement in using rubrics; 2) examining and understanding the contexts in which rubrics are used; and 3) placing political pressure on instructors to use rubrics at the institutional level.

**Keywords:** Higher education; Learning assessment; Rubric.

### **Introduction**

Wilson (2006), a writing teacher and formerly a strong advocate of rubrics, noted:

Rubrics' position as the latest sacred cow of writing assessment is no accident; rubrics make powerful promises. They promise to save time. They promise to boil a messy process down to four to six rows of nice, neat, organized little boxes. Who can resist their wiles? They seduce us with their appearance of simplicity and objectivity and then secure their place in our repertoire of assessment techniques with their claim to help us clarify our goals and guide students through the difficult and complex task of writing. (p. 2)

Then Wilson encountered a paper written by a student named Krystal. Her paper did not meet the criteria of the rubric that Krystal used and should have been poorly scored. Wilson, however, found the paper moving. She checked another rubric: the

student's paper would receive a worse grade according to the criteria of that rubric for "inconsistent paragraphing, full of unintended fragments, unclear transitions, and rife with spelling, punctuation, and sentence structure errors" (p. 4). Wilson found Krystal's writing more exciting than many of the other, more polished papers. Nothing in these rubrics reflected her excitement about Krystal's paper. For ideas, her paper earned the lowest score because:

The paper has no clear sense of purpose or central theme. To extract meaning from the text, the reader must make inferences based on sketchy or missing details."

For organization, a score of 1 applied again because:

[t]he writing lacks a clear sense of direction. Ideas, details, or events seem strung together in a loose or random fashion; there is no identifiable internal structure. (p. 6)

This episode does not necessarily indicate that rubrics have no value in the assessment of student work. Knowing and understanding the concept of rubrics may be important for teachers to assess writing or presentations. Indeed, many educational assessment scholars have been developing rubrics for effective formative and summative assessments (Brookhart, 2013; McTighe, 2000). There are, however, at least two questions to be answered: 1) whether rubrics can adequately measure students' performances; and more importantly, and 2) whether teachers are willing to use rubrics as intended. This paper will address these issues through literature review followed by semi-structured interviews with faculty members at several Japanese universities participating in the national project "Improving Higher Education for Industrial Needs" funded by the Japanese Ministry of Education, Culture, Sports, Science, and Technology (MEXT). This study may also be significant in terms of adding an international perspective to rubric research. As Reddy and Andrade (2010) noted, research on rubrics has been "limited almost entirely to the United States. The differences in educational theories and instructional approaches in different cultures necessitates international studies of rubric use in order to establish its utility in diverse contexts" (p. 446).

#### *Definitions of rubrics*

According to Panadero and Romero (2014), rubrics are assessment tools that articulate specific expectations for assignments "by listing the criteria for what is particularly important and by describing levels of quality on a scale from excellent to poor (p.135).

Wolf and Stevens (2007) define a rubric as "a scoring tool used to evaluate a performance in a given outcome area based on a list of criteria describing the characteristics of products or performances at varying levels of accomplishment" (p. 4). Rochford and Borchert (2011) also define a rubric as "a scoring tool, a method of identifying the criteria for evaluating a piece of work" (p. 259)

Steven and Levi (2013) explain that a rubric “works in a number of different ways to advance student learning” (p. 3). This statement may indicate that rubrics are formative as well as summative assessment tools, though rubrics are often “used merely as a tool to assign a final grade that is justified in the eyes of the professor” (Czaplewski, 2009, p. 30). In order to analyze the reality of how rubrics are used (or not used) by instructors, the next section will examine positive and negative aspects of usage.

Rubrics typically follow a similar format. Stevens and Levi (2013), for example, illustrate a standard type of rubric with three scale levels and dimensions (i.e., items such as originality and succinctness as cited by Cicchetti, 1991) (Figure 1).

<b>Title / Task Description</b>	<b>Scale level 1</b>	<b>Scale level 2</b>	<b>Scale level 3</b>
<b>Dimension 1</b>			
<b>Dimension 2</b>			
<b>Dimension 3</b>			
<b>Dimension 4</b>			

**Figure 1: Standard Model by Stevens and Levi (2013)**

The ICE model, which has recently drawn attention in Japan (Ito, 2014), follows the standard form with the three scale levels represented by ideas, connections, and extensions (Figure 2).

<b>Title / Task Description</b>	<b>Idea</b>	<b>Connection</b>	<b>Extension</b>
<b>Dimension 1</b>			
<b>Dimension 2</b>			
<b>Dimension 3</b>			
<b>Dimension 4</b>			

**Figure 2: ICE Model by Young and Wilson (1995)**

However, some scholars argue that teachers do not have and/or do not use rubrics at all or use them only partially to supplement grading that they have already determined in their minds (Elton and Johnson, 2002; Grainger et al., 2008). Bloxham et al. (2011), for example, argue that the majority of teachers do not use written rubrics in their marking. In their study on the use of rubrics, one respondent claimed:

Thinking about the marking and reviewing it briefly in my head before I make any comments and just deciding into which ballpark area it fits. Is it the first, upper second, lower second, third, fail – it’s not a fail because it does some of the things it says on the tin but on the other hand it’s not a scholarly essay from a Year 2 student. It’s something which is satisfactory and it does provide a rationale and it is quite practical but

that is as far as it goes so it's probably in the 40s rather than in the 50s and that's probably what I think. Upper 40s rather than the lower 40s but I'm still thinking about that. (Bloxham et al., 2011, p. 664)

The study by Bloxham et al. (2011) may indicate that teachers ignore criteria, choose not to adopt criteria or use implicit standards in their heads. This is, they argue, "a reasonable response to the acknowledged difficulty of working with predetermined criteria and statements of standards" (p. 664). Steven and Levi (2013) also point out that while they may not use written rubrics, teachers always have criteria in mind when they evaluate students' work.

The literature review suggests that instructors do not use written rubrics but rather mental grading mechanisms. Teachers may use multiple levels (first, upper second, lower second, third, fail / in the 50s, upper 40s, lower 40s / A, B, C, F), or alternatively use only one dimension (see Figure 3). For instance, the respondent in the study by Bloxham et al., whose response is detailed above, did not mention any dimension.

	A	B	C	F
<b>Task Description</b>				

**Figure 3: Mental grading mechanisms**

Overall, evidence suggests that when grading assignments, instructors have a mental notion in mind such as "very good," "good," "fair (enough to pass)," and "fail" in a holistic or overall sense.

#### *Positive and negative aspects of rubrics*

Reddy and Andrade (2010) report that although both students and teachers in general have positive attitudes toward rubrics, some resist using them. Steven and Levi (2013) explain that despite their usefulness, rubrics have largely been ignored in higher education as "instructors did not fully understand what they were or how they can improve the teaching experience" (p. xxi). This section reviews positive and negative aspects associated with rubrics.

#### *Positive aspects*

Scholars have described the positive aspects of rubrics as follows:

- Rubrics clarify learning targets/goals (Reddy and Andrade, 2010; Steven and Levi, 2013; Wolf and Stevens, 2007)
- Rubrics guide instructional design and delivery (Jonsson and Svingby, 2007; Reddy and Andrade, 2010; Steven and Levi, 2013; Wolf and Stevens, 2007)

- Rubrics make assessment processes consistent, objective, and fair (Bloxham et al., 2011; Czaplewski, 2009; Helvoort, 2010; Jonsson and Svingby, 2007; Mansilla et al., 2009; Lovorn and Rezaei, 2011; Panadero and Romero, 2014; Peat, 2006; Sadler, 2009; Timmerman et al., 2011; Wolf and Stevens, 2007)
- Rubrics provide students with a self-assessment and peer feedback tool (Lovorn and Rezaei, 2011; Reddy and Andrade, 2010; Steven and Levi, 2013; Wolf and Stevens, 2007)
- Rubrics encourage meaningful feedback (Helvoort, 2010; Lovorn and Rezaei, 2011; Steven and Levi, 2013; Wolf and Stevens, 2007)
- Rubrics save time on assessment (Czaplewski, 2009; Lovorn and Rezaei, 2011; Reynolds-Keefer, 2010; Steven and Levi, 2013)

#### *Clarifying learning targets/goals*

As Reddy and Andrade (2010) explain, rubrics help students (as well as teachers) understand learning goals by:

...identifying critical issues in an assignment and, thereby, reducing uncertainty and doing more meaningful work, determining the amount of effort needed for an assignment, evaluating their own performances in order to get immediate feedback, especially on weaknesses, estimating their grades prior to the submission of assignments and focusing their efforts so as to improve performance on subsequent assignments. (p. 438)

Panadero and Romero (2014) support Reddy and Andrade's (2010) statement: "Students using rubrics will have clearer goals for the task, will be able to design a conceptual map using the rubric assessment criteria and therefore activate more learning strategies" (p. 137).

If students know learning targets/goals, they are more likely to achieve them (Stiggins, 2001). As Wolf and Stevens (2007) state, "students who know in advance what the criteria are for assessing their performance will be better able to construct models or select photographs that demonstrate their skills in those areas" (p. 12).

#### *Guiding instructional design and delivery*

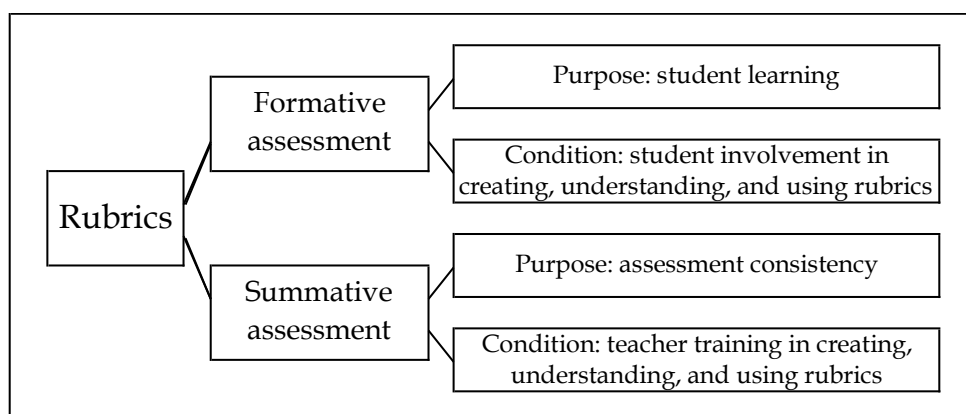
Reddy and Andrade (2010, p. 439) note that rubrics benefit instructional design and delivery: "Researchers stress the instructional value of rubrics and urge instructors to use them as instructional guides, not just grading tools." When teachers have carefully articulated their expectations for student learning in the form of a rubric, they are better able to understand learning targets and more likely to achieve these outcomes (Arter and McTigue, 2001).

#### *Making assessment more consistent, objective, and fair*

The use of rubrics has a beneficial effect on teachers by helping them clarify their assessment criteria and leads to scoring more fairly (Panadero and Romero, 2014). With a rubric, a teacher is more likely to be consistent in his or her judgments (Jonsson and Svingby, 2007; Lovorn and Rezaei, 2011; Wolf and Stevens, 2007). Jonsson and Svingby (2007), for example, explain, “One widely cited effect of rubric use is the increased consistency of judgment when assessing performance and authentic tasks. Rubrics are assumed to enhance the consistency of scoring across students, assignments, as well as between different raters” (p. 132). Rubrics thus can provide higher degrees of consistency, objectivity, uniformity, and fairness.

#### *Encouraging meaningful feedback*

Rubrics can promote student learning as formative as well as summative assessment tools (Reddy and Andrade, 2010). According to Crisp (2012), formative assessment is “designed primarily to improve learning” and summative assessment “to judge learning [final evaluation]” (p. 33). Torrance (2012) also explains that formative assessment is the “pedagogic process and the informal ways in which teachers come to understand student work and seek to assist their learning” (p. 325). Some scholars believe that rubrics constitute formative feedback (Black and Wiliam, 1998; Panadero and Romero, 2014; Yorke, 2003) and enable students to use feedback to improve their learning (Engbers, 2009; Gallavan and Kottler, 2009; Jonsson and Svingby, 2007). For instance, Reddy and Andrade (2010) state that the “potential role of rubrics [is] in channeling students’ motivation and effort towards enhancing learning” (p. 443). Wolf and Stevens (2007) also state that rubrics can “be used by classmates to give each other specific feedback on their performance” (p. 12-13). The figure below is an example of the relationships between rubrics serving as formative and summative assessments.



**Figure 4: Rubrics for formative and summative assessments by the author**

At the same time, Panadero and Romero (2014) aver that one of the problems with rubrics is that they are “not always used for formative assessment purposes, which clearly reduces its learning impact” (p. 135).

#### *Saving time on assessment*

Several scholars argue that rubrics save time (Beyreli and Ari, 2009; Lovorn and Rezaei, 2011; Spandel, 2006). In Reynolds-Keefer's (2010) study, respondents reported that rubrics shorten grading time.

### *Negative aspects*

Some scholars have pointed out negative aspects of rubrics, some of which contradict the positive aspects already detailed.

- Rubrics make assessment inconsistent and subjective (Bloxham et al., 2011; Czaplewski, 2009; Popham, 1997; Robin and Simon, 2004)
- Rubrics are time-consuming (Elton and Johnson, 2002; Helvoort, 2010; Rochford and Borchert, 2011; Thaler et al., 2009; Wolf and Stevens, 2007)
- Rubrics can undermine creativity (Wolf and Stevens, 2007, p. 13)

Shay (2004) argues that assessment, including rubrics use, is a context-dependent, experience-based and situational judgment. For example, students (like Krystal as cited in Wilson, 2006) may write essays in very different but equally effective ways. Written assessment requires instructors to use their own judgment, "based on their tacit knowledge, in order to allocate grades. Such judgment is subjective and inconsistent in marking" (Bloxham et al., 2011, p. 657). Robin and Simon (2004) echo Bloxham et al. (2011): "Many rubrics are still not instructionally useful because of inconsistencies in the descriptions of performance criteria across their scale levels." Therefore, "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" (Czaplewski, 2009, p.29).

### *Rubrics are time-consuming*

Some scholars argue that rubrics are time-consuming. Wolf and Stevens (2007) state that creating rubrics, "especially writing the descriptions of performances at each level" is time-consuming and thus "should be developed for only the most important and complex assignments" (p. 13).

In Reynolds-Keefer's (2010) study, one respondent reported that making and/or using rubrics "seems really complicated...you have to know too much stuff ahead of time. It is easier to just grade" (p. 1). Another simply said, "I think it would take too much time, and I don't know how I decide how many points everything is worth" (p. 1). This time-consuming process can be stressful for both instructors and students.

### *Rubrics can undermine creativity*

Some scholars are concerned that rubrics could undermine, constrain, and diminish creativity (Wolf and Stevens, 2007). Linda Mabry (2013), for example, argues that rubrics may help students obtain higher scores but may also produce 'vacuous writing' (p. 678). Bloxham et al. (2011) warn that rubrics can mislead students (and

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teachers) that there is “something fixed, accessible and rational that they can use to guide work” (p. 663).

These statements contradict those made in the previous section and raise some questions: are rubrics time-saving or time-consuming? Likewise, do they improve assessment consistency while being context-dependent? Do rubrics help instructors be objective about students’ work? Do rubrics undermine creativity?

In Japan, rubrics have attracted considerable attention since the mid-2000s, but are still a relatively novel concept. Japanese universities have focused more attention on rubrics or rubric-like tools following the revision of standards for establishment of universities set by MEXT in 2011. These standards require universities to clearly indicate the criteria for assessment of students’ learning (Oki, 2014). This paper attempts to answer the following question: Do Japanese university instructors know and/or use rubrics? If so, how do they use them?

## **Methodology**

### *Design*

This study collected qualitative data using two different methods: a focus group and two semi-structured interviews. According to Tanggaard (2011), focus groups provide a research setting for creative dialog and are “relevant when searching for empirical data on how social groups understand and interpret a particular topic [rubrics]” (p. 223). Semi-structured interviews were also used to provide further in-depth data as they are well suited to exploratory research (Shensul, Schensul, and LeCompte, 1999). This study was divided into three different stages.

### *Pilot Study*

First, pilot semi-structured interviews took place with seven Nagoya University of Commerce and Business (NUCB) faculty members who do not belong to assessment related committees. These pilot participants are general instructors, not biased against rubrics but who are more likely to not be knowledgeable about them. For the pilot study, convenience sampling was used. Participants were individually interviewed regarding whether they know and/or use rubrics, how and when they use them (e.g., types of assignments or exams), and what they think are the positive and negative aspects of using such assessment tools. The same interview questions were used for all three studies in the current research and developed based on pilot participants’ responses to these questions.

### *Focus Group*

Next, a group was conducted with seven NUCB faculty members from the Student Advisory Committee (SAC). The committee members were selected for this study as they are partially responsible for the first-year student learning assessment at NUCB.



Another committee called the Assurance of Learning (AOL) Committee is in charge of assessing second to fourth year students. AOL members had been tasked with developing rubrics for NUCB faculty to assess seminar students' work. Given that the AOL members had been involved with rubrics as part of their duties, they may not have been the most appropriate participants for the current research that examines whether university instructors know about rubrics. The focus group with NUCB faculty members from SAC was conducted in one of their annual meetings in May 2014 and lasted 100 minutes.

### *Semi-structured Interviews*

Finally, semi-structured interviews were carried out with 13 members of the Tokai A team, the seven universities participating in the national project "Improving Higher Education for Industrial Needs" funded by MEXT. For this project, 146 two- and four-year institutions have been selected with a view to improve the quality of higher education by developing students' employment prospects and meeting industry needs. These 146 institutions have been divided into eight regional groups. One of the eight groups is Chubu, the central part of Japan where 23 of the 146 institutions are located. Within the Chubu area, seven universities (i.e., Aichi Sangyo University, Chubu University, Mie University, Nagoya University of Commerce and Business, Sugiyama Jogakuen University, Toyohashi Sozo University, and Toyohashi Sozo Junior College) have formed a group called the Tokai A Team (TAT), which focuses on addressing issues of student learning. Semi-structured interviews with individual TAT members were carried out, rather than a focus group. This was done for logistical reasons: a discussion on rubrics was not considered a priority for a group meeting involving members drawn from wide-ranging geographical areas and time for a focus group was not allocated. However, some individual members agreed to be interviewed before or after these meetings. In total, 13 TAT members were interviewed April and December 2014.

## **Results**

### *Pilot study*

All seven respondents except one assistant professor, whose major is education, reported that they did not know what rubrics were. The most common response was: "What is it?" "I don't know about it." One professor noted with a grim look, "A rubric? Is such a thing popular now?" After my explanation, the concept of a rubric appeared to be understood.

Examples of other responses include the following: An associate professor said:

I would not say we don't need rubrics to improve the quality of education. In reality, however, it is difficult to use them, given the time and effort that might be required.

An assistant professor noted:

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I find it troublesome to use such a thing. My criteria of assessing student work are simpler. Students score poorly if their reports do not follow the instructed topic theme or do not have references. I would give zero to copied and pasted reports for plagiarism. I would give extra points to reports with concrete examples to support their arguments. I would like to use [written] rubrics, but I have not seen rubrics that suit my courses.

A professor claimed:

I have to evaluate 800 reports for one course. To do so, I use keywords. For instance, a student includes eight out of the 10 key words necessary in an organized way; he or she then receives 80% of a maximum grade. Even using this method, it takes me 10 minutes to grade each report, which comes in total to 8,000 minutes [or over 133 hours]. Therefore, I find it infeasible to use rubrics.

Another assistant professor observed:

I don't think we need it [a rubric]. In the case of a bachelor's thesis, for example, once I look at it, I know how well students do. I assume nobody will look at a rubric even if someone makes it for him/her.

The assistant professor whose major is education echoed the opinions of those who were less familiar with rubrics:

Using rubrics made by others is troublesome. First and foremost, it takes a lot of effort and time for instructors to understand them. I believe that instructors unconsciously use mental rubrics in mind. We probably would not use a hard rubric even if we were given one.

An associate professor added:

In order for us all to use the same rubric, we need to address political as well as technical issues. That is, without political pressures from the management level, no one would bother to use it.

### *Focus Group*

Faculty members belonging to the SAC were not familiar with rubrics, either. After my explanation about rubrics, one member asked, "How does this rubric help? For instructors to be accountable and show that they make efforts in teaching and assessment?" One professor said, "I thought a rubric has a universal format to be used all over the world. I am surprised to hear that it varies across institutions."

Another professor claimed:

Although rubrics appear to be objective, the processes to check them are indeed subjective. Rubrics cannot help being subjective because some items

(e.g., awareness of problems) are hard to be assessed by rubrics and thus instructors have to use their own judgment.

The NUCB faculty members interviewed in this study had not used written rubrics. Many of them did not know what they were. As the literature review indicated, however, some of them seem to use mental grading mechanisms. In order to further and more broadly explore how rubrics are used, semi-structured interviews with 13 faculty members from seven universities in the Tokai area were conducted.

#### *Semi-structured Interviews*

In this study, semi-structured interviews with 13 faculty members from seven universities in the TAT were conducted in order to examine whether they use rubrics, and if so, how they use them. Five participants claimed that they did not use rubrics. One professor reported that he had started using rubrics to see how they worked, but had not used one for assessment yet.

One third of respondents reported difficulties in making and using rubrics: "I find it difficult to make rubrics," "It is troublesome to make and use rubrics," and "Even if we have a rubric at hand, it is difficult to use it. For instance, what would be the difference between level 3 and level 4 of a certain item? We need to make a subjective judgment anyway to decide what is fairly good, what is very good, and so forth."

A lecturer commented that she has used the rubric made by the Ministry of Economy, Trade, and Industry (METI) to measure fundamental competencies for professionals. She reported three positive aspects of using rubrics that fit well with those reported in the literature. They include the following: 1) Since the criteria for evaluation are standardized, there may be less inconsistency in grading among instructors; 2) By showing students the criteria for grading, students may find the assessment fairer; and 3) By showing students what instructors expect them to do, rubrics may help students understand what they need to learn.

This lecturer also raised some issues about rubrics: 1) It is difficult to make a rubric that can be widely used by instructors because it may be difficult for all instructors to come to an agreement on format, items, languages, and so forth; 2) It is also uncertain whether it is possible to set the same criteria across different subjects; and 3) Even if a rubric is created, instructors might not use rubrics without pressures from authorities because it is troublesome to use them. She concluded that rubrics could be useful for a small group, long-term assessment. However, it is very difficult for instructors to agree on assessment items and criteria. They have to compromise to some extent; otherwise they cannot use rubrics.

Some respondents reported reasons that they did not use rubrics. One professor reported: "Rubrics may set limitations for students; they may just make enough efforts to meet the criteria of rubrics and do no more than that."

Another lecturer claimed:

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The objective of my course is to enable students to be proactive; the outcome of student work is not important. I don't think student pro-activeness can be quantified. Therefore, I do not use rubrics. I assess students from a clinical psychologist point of view. I believe education psychologists tend to use rubrics. Clinical psychologists like myself would rather intend to fill the gap between what is shown in rubrics and what students really are able to do—the real value of student work.

An associate professor said that while he understood the significance of understanding the concepts of rubrics, he finds it infeasible to use the same rubrics across different instructors, subjects, and disciplines:

Suppose you are replacing a teacher to teach something. Even if the teacher gave you all the instructions about how he or she graded students, would you follow that? We are not pure, innocent graduate students that simply follow what they are told to do.

### **Discussion and Conclusion**

The current research examined whether Japanese university instructors are familiar with rubrics, and if so, how they use or do not use them. The findings show that many of the instructors in the sample were unfamiliar with rubrics. Some of those who knew about rubrics did not use them for specific reasons. These included that they require too much time and effort. As one respondent claimed, some instructors teach large numbers of students and grade hundreds of reports at a time. Also, rubrics are technically difficult to use. One respondent reported, for example, that the difference between level 3 and 4 of a certain item is often judged subjectively and thus inconsistently. These issues coincide with the negative aspects of rubrics mentioned in the literature review. Given these issues, rubrics may be effectively used only when they meet certain conditions, summarized below:

1. Instructors' understanding of and engagement in using rubrics: the current research shows that many instructors do not know or understand rubrics and some of those who know and understand rubrics do not use them because they are unconvinced of the benefits of using them.
2. Examining and understanding the contexts in which rubrics are used: it is difficult to use the same rubric in different contexts because the content of rubrics should differ according to the context. For instance, the criteria for assessing academic writing and creative writing may be different.
3. Political pressures on instructors to use rubrics: making and using written rubrics requires time and effort. Unless instructors are institutionally required to use rubrics and provide evidence of using them, they will not use them.

Is it feasible to meet these conditions? The current research does not provide a positive response to this question. While rubrics may be useful for young teachers who are beginning to develop their grading skills, this research suggests that rubrics are

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unlikely to become more widely used as a practical assessment tool in the context of Japanese higher education.

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