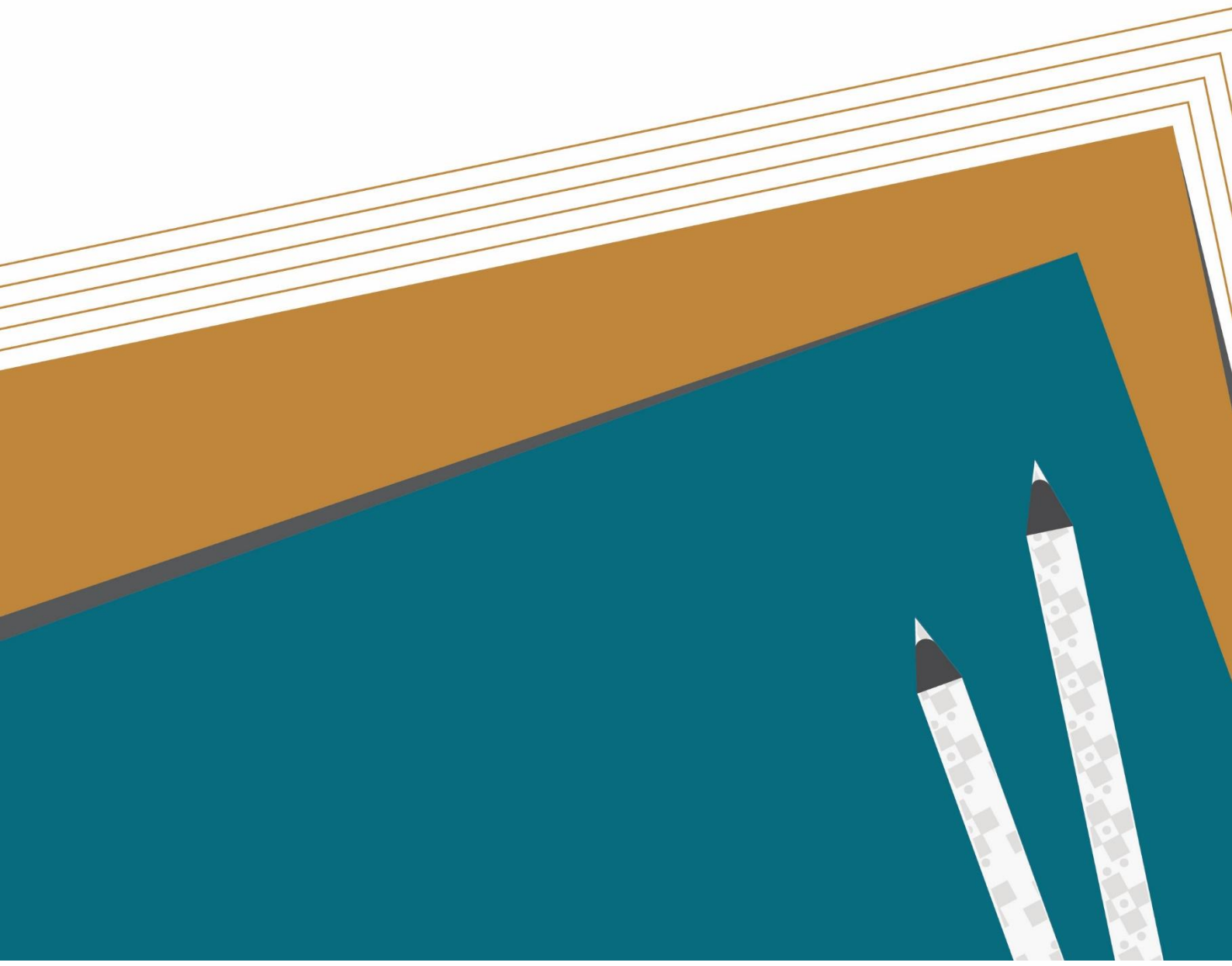


Meta-Rubrics: Rubric for Assessing Rubric Effectiveness



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Rubrics in Assessments: Current Practices, Challenges, and the Need for Quality Frameworks

Rubrics have emerged as essential tools in both formative and summative assessments, providing structured guidelines for evaluating student performance (Brookhart, 2013). Defined as scoring guides that outline criteria and performance levels, rubrics serve to enhance transparency in assessment, promote consistency in grading, and offer students actionable feedback across various subjects (Reddy & Andrade, 2010). Research shows that rubrics are used as a structured guide, allowing for validly assessing multi-dimensional performances and have been a commonly preferred tool for many test developers as they allow for a reliable assessment of complex tasks (Panadero & Jonsson, 2013). However, the present discourse on rubric development is limited to either task-specific assessments, such as essay writing or role plays, or provide vague general guidance on rubric structure, such as defining layout or ensuring presence of a criteria and descriptors. This is necessary in ensuring reliability and validity while using rubrics in classrooms.

While analytic, holistic, task-specific, and general rubrics—are some of the commonly recognized types of rubrics, the type of rubric in itself does not guarantee validity and reliability of the tool. A carefully designed rubric of any type has the potential to produce valid and reliable results (Moskal & Leydens, 2000). However, studies suggest that teachers often employ these frameworks without a concrete understanding of their pedagogical intent, leading to poor implementation (Brookhart, 2013; Panadero & Jonsson, 2013). Moreover, instructors generally see rubrics only as mechanisms for quick, objective, and accurate grading (Brookhart, 2013; O'Connor, 2011), while interestingly, students tend to appreciate their potential to enhance learning and achievement (Reddy & Andrade, 2010). This discrepancy suggests that demonstrating the broader benefits of using rubrics could encourage teachers to use rubrics appropriately.

In the Indian context, while national policies including the NEP 2020 and the NCF SE 2023 encourages the use of diverse tools for assessment 'for' and 'as' learning (NCERT, 2023), there is a lack of understanding among teachers on how to implement such tools effectively. While rubrics is gaining traction in India, particularly in higher education, there remains a paucity of studies on their use across the various stages of schooling. Further, the absence of focused professional development of in-service teachers and teacher education programs for pre-service teachers on

design and implementation of assessment tools, like rubrics, in classroom settings contributes to their challenges in implementing these (Varshini & Venkatalakshmi, 2024; Gupta & Gupta, 2022). The extent of this remains unexplored.

Improving assessment literacy and theory-driven instruments in formative assessments among Indian educators is crucial to ensure that tools like rubrics act as catalysts for learning rather than as mere grading instruments (Varshini & Venkatalakshmi, 2024; Gaikwad et al., 2023). Such efforts among practitioners will ultimately enhance the constructive alignment between learning, instruction, and assessment, fostering more effective educational practices (Panadero & Jonsson, 2013) and bridging the gap between policy and practice.

Despite the growing acknowledgment of rubrics as a means to guide formative assessment, instructional adjustments and self-regulate learning among students, there is a dearth of studies evaluating the quality of rubrics themselves. Some meta-rubrics have been developed to evaluate the quality of rubrics, such as those proposed by Northern Arizona University (2019), Stanford Center for Assessment, Learning, & Equity (2017), McTighe (2016), Stevens (2012) and Educational Testing Service (2006). These frameworks aim to provide more like a general checklist for rubric development, while others, such as the Meta-rubric for Assessing Creativity, focus on task-specific assessment (Creative Leadership Solutions).

The validity and reliability of rubrics remain central concerns, as many educators do not rigorously test their rubrics before implementation (Moskal & Leydens, 2000). Furthermore, flaws in rubric design, such as overemphasizing extraneous information or confusing intended learning outcomes with task objectives, compromise their effectiveness by using “empty rubrics” (Brookhart, 2013). Addressing such design flaws is essential in developing rubrics that are both functional and theoretically sound. Additionally, engaging in the rubric design process offers practitioners a valuable opportunity for reflection on its constituent elements, thereby revealing potential ‘unknown unknowns’ or implicit assumptions (Dawson, 2017). Such exercises can be particularly beneficial in building a shared understanding among stakeholders and mitigating the risk of confusion (Dawson, 2017).

Given the gaps in existing literature, this discussion aims to propose a framework for evaluating the quality of rubrics, thereby contributing to the discourse on rubric development and use. By establishing clear criteria for what constitutes effective rubric, this will serve as a reference tool for practitioners, ensuring that rubric is not only well-designed but also acts as catalysts for meaningful teaching, learning and assessments in classroom.

Approach for developing Rubric- An example

Let us explore the approach to determining assessment criteria in rubrics through the following example:

Students are expected to identify a problem or area for improvement in their local community, propose a creative and practical solution, and develop an implementation plan. This task will culminate in an oral presentation to a panel of teachers. In this example, the primary goal is to assess students' ability to ***generate innovative ideas***. A group of students will explore community issues, brainstorm solutions for one identified issue, and prepare a detailed implementation plan. In this case, the assessment will focus on three key dimensions:

- The quality of the idea
- The ability to collaborate and work effectively as a group, and
- The effectiveness of their presentation

Since each of these dimensions is distinct, it would be beneficial to develop separate rubrics for each. In this context, we will focus on creating rubric for assessing the quality of the idea.

An idea holds value when it is both practical and capable of leading to positive outcomes. Novelty is another aspect closely related to the quality of an idea, as it introduces originality and innovation that can significantly enhance the idea's value. Therefore, the three criteria for assessing the quality of an idea are-

- Potential for positive outcomes
- Practicality
- Novelty

It is important to review the ***adequacy of the chosen criteria*** to ensure they comprehensively assess the desired competency and reflects the disciplinary understanding of the subject. An idea can be considered useful only when it leads to positive outcomes. This relates to how well students understand the problem, the context, and how thoroughly the implementation plan addresses the chosen problem within the given context. The practicality of an idea pertains to its feasibility in terms of available resources, time, and constraints. It also involves the idea's implementability within the chosen context, without requiring unrealistic assumptions or conditions. Lastly, novelty relates to originality and how well the idea differentiates itself from existing ones. This criterion assesses students' ability to think creatively and develop innovative solutions. While novelty alone doesn't guarantee a successful idea, when combined with practicality and the potential for positive outcomes, it can significantly elevate the idea's quality and value. Through this discussion, we aimed to establish how the chosen criteria- potential for positive outcomes, practicality, and novelty-adequately assess the competency of developing a quality idea.

It is important to note that each of these criteria is orthogonal to the others, meaning there is no overlap, interference, and they are independent and unrelated to one another. A practical idea does not need to be novel, an idea that has a potential for positive outcomes does not need to be practical, and a novel idea might neither be practical nor lead to positive outcomes. Ensuring the **orthogonality of the chosen criteria** is crucial for developing high-quality rubrics.

The criteria should be defined in a manner that **reflects both the process and the product** of the assessment task. Process criteria evaluate the steps taken, methods used, and the approach the student adopted to complete the task. Product criteria assess the final outcome, focusing on the quality, accuracy, and completeness of the finished work. For the assessment task example we have considered, evaluating the process is particularly relevant for dimensions such as the ability to collaborate and work effectively as a group, and the effectiveness of their presentation. While presenting their work, students can be assessed based on how they approached the assessment task, whether they thoroughly analyzed the identified issue, what challenges they faced, and if they used checklists and guidelines appropriately. Similarly, rubrics for assessing the ability to work in a group might include indicators such as whether all group members contributed actively to discussions and tasks, whether the group worked together effectively by sharing responsibilities and ideas, whether they managed conflicts constructively and resolved differences, and whether they managed their time well and adhered to deadlines.

Along with ensuring adequateness and orthogonality, it is crucial to **define these criteria using tangible indicators** that are observable and assessable. To qualify an idea to be practical, probably we need to assess if the idea is highly feasible, with a comprehensive and realistic plan for resources, time, and constraints; and whether the idea is supported with a realistic implementation plan.

Considering this understanding of practicability, following indicators can be used-

- Does the idea clearly identify the necessary resources (e.g., availability of materials, budget, time) required for implementation?
- Is there a well-defined plan that accounts for all stages of the idea's implementation, including milestones and deadlines?
- Does the idea include a realistic budget that aligns with the expected costs and available funds?
- Does the idea outline steps needed for implementation?
- Does the plan include a plan for pilot, analysis of potential risks and mitigation strategies?
- Are the key stakeholders identified, and is there a strategy for involving them throughout the implementation process?

Similar indicators need to be defined for novelty and potential for positive outcomes as well.

Developing rubric collaboratively with your peer group is useful, as it allows you to incorporate diverse viewpoints, experiences, and expertise. Additionally, continuous revision helps ensure that the rubric accurately reflects the criteria and standards being assessed, and that it remains fair, reliable, and valid. In this context, we have attempted to develop a meta-rubric to help you think through the criteria and provide a framework for self-assessing the rubric.

Meta Rubric- Rubric for Assessing a Rubric

Criteria	Level 1	Level 2	Level 3
Adequateness	- The criteria do not align with the intended learning standards. - Significant aspects of the assessment task are missing or inadequately covered.	- The criteria mostly align with the intended learning standards, but there are minor gaps. - Most important aspects of the task are covered, though some are slightly omitted	- All the criteria thoroughly align with the intended learning standards. - All essential aspects of the task are covered comprehensively.
Orthogonality	More than 50% of the criteria overlap, leading to redundancy in evaluating the same attribute.	A few criteria overlap (1 or 2), but most reflect distinct attributes.	All criteria are unique and distinct, each evaluating a different aspect of the assessment task.
Process and Product	The chosen criteria only focus on the product of the assessment.	- The chosen criteria reflect the product of performing the assessment task. - The process of performing the assessment task is partially focused on terms of just the steps and methods. The challenges and the associated approach are not considered.	- The chosen criteria reflect both the process and the product of performing the assessment task. - The process of the assessment task is defined with respect to steps taken, methods used, and the approach the student adopted to complete the task.
Tangibility	- Criteria and performance levels are unclear and ambiguous. - Inconsistent results attained by different assessors making the assessment unreliable.	- Some criteria are clear, while others are vague or lack specific examples. - Some criteria show inconsistencies.	- Criteria and performance levels are clearly defined and specific. - Criteria are reliable as consistent results can be achieved across assessors.

References

1. Andrade, H. G. (2005). Teaching with Rubrics: The Good, the Bad, and the Ugly. *College Teaching*, 53(1), 27–31. Retrieved from https://www.researchgate.net/publication/238684324_Teaching_With_Rubrics_The_Good_the_Bad_and_the_Ugly
2. Brookhart, S. M. (2013). *How to Create and Use Rubrics for Formative Assessment and Grading*. ASCD.
3. Conn, C., Pieper, S., & Bohan, K. (2019). Meta-rubric for Examining Performance Assessment Rubrics. Northern Arizona University. Retrieved from <https://nau.edu/Provost/PEP/Quality-Assurance-System/>
4. Dawson, P. (2017). Assessment Rubrics: Towards Clearer and More Replicable Design, Research and Practice. *Assessment & Evaluation in Higher Education*, 42(3), 347–360.
5. Educational Testing Service. (2006). Rubric for Rubrics. Creating & Recognizing Quality Rubrics [CD]. Retrieved from (Lincoln University): <https://www.lincoln.edu/files/institutional-assessment/Rubric-for-Rubrics.pdf>
6. Gaikwad, S., Wadegaonkar, A., Mitra, G., & Chakravarty, D. (2023). Assessment Literacy, Current Assessment Practices and Future Training: Reflections of Teachers in Higher Education. *International Journal of Learning and Teaching*, 11(4), 1-29.
7. Gupta, B., & Gupta, P. B. (2022). A Critical Study on The Use of Rubrics in Technical Institutions of India. *Educational Assessment*, 4(2), 20-33.
8. McTighe, J. (2016). Developing and Using Quality Rubrics to Evaluate and Improve Student Performance. Presentation conducted at the Virginia Association of School Superintendents. Retrieved from <https://www.vassonline.org/images/vass/resource-files/pba-resources/Quality%20Rubrics%20-%20Second%20AM%20Session.pdf>
9. Moskal, B. M., & Leydens, J. A. (2000). Scoring Rubric Development: Validity and Reliability. *Practical Assessment, Research, and Evaluation*, 7(1), 1–10.
10. National Council of Educational Research and Training (NCERT). (2021). *National Education Policy 2020: A Transformative Vision*.
11. National Council of Educational Research and Training (NCERT). (2023). *National Curriculum Framework for School Education 2023*. Ministry of Education, Government of India.
12. O'Connor, K., & Wormeli, R. (2011). Reporting Student Learning. *Educational Leadership*, 69(3), 40–44.
13. Panadero, E., & Jonsson, A. (2013). The Use of Scoring Rubrics for Formative Assessment Purposes Revisited: A Review. *Educational Research Review*, 9, 129–144. Retrieved from https://www.researchgate.net/publication/234169756_The_Use_of_Scoring_Rubrics_for_Formative_Assessment_Purposes_Revisited_A_Review
14. Reddy, Y. M., & Andrade, H. (2010). A Review of Rubric Use in Higher Education. *Assessment & Evaluation in Higher Education*, 35(4), 435–448. Retrieved from: https://www.researchgate.net/publication/248966170_A_review_of_rubric_use_in_higher_education
15. Stanford Center for Assessment, Learning, & Equity (SCALE). (2017). SCALE Checklist for Quality Rubric Design. Performance Assessment Resource Bank. Retrieved from <https://performanceassessmentresourcebank.org/system/files/SCALE%20Quality%20Rubric%20Checklist.docx.pdf>
16. Stevens, D.D. (2012). *Introduction to Rubrics: An Assessment Tool to Save Grading Time, Convey Effective Feedback, and Promote Student Learning* (2nd ed.)
17. Varshini, S. A., & Venkatalakshmi, T. S. (2024). Assessment literacy of Indian educators at the tertiary level: Insights on practices and perspectives. *Research Journal in Advanced Humanities*, 5(4). Retrieved from <https://doi.org/10.58256/btp1d832>

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